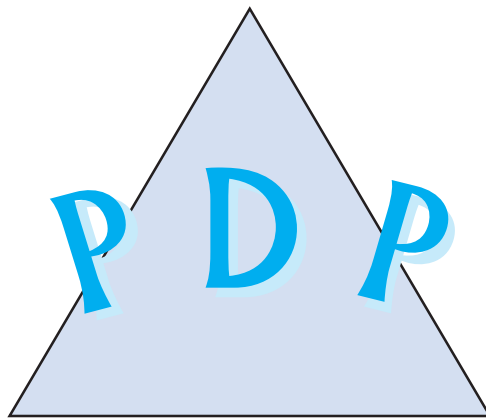


1997 -1998



Professional Development Programme  
for Educational Psychologists in Scotland

**Attention Deficit Hyperactivity Disorder**

ADHD: *driving us to distraction?*

Issues for Educational Psychologists

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## ***ADHD: driving us to distraction?***

### **ISSUES FOR EDUCATIONAL PSYCHOLOGISTS**

#### **FOREWORD**

*Ian Liddle, Senior Coordinator*

One of the most valuable uses of the Professional Development Programme is the opportunity it offers to examine in detail, phenomena which are perceived to be impacting in an increasing way on educational psychologists' daily practice, to draw together the relevant data on these phenomena for colleagues in the field, and to offer practical and reasoned advice on the issues.

This project on Attention Deficit Hyperactivity Disorder is a prime example of this mechanism in operation. Although increasing prevalence has been reported in other western countries since the late 1980s, it is only in the last three years that ADHD has impacted in a significant way on educational systems in this country. However, the burgeoning literature on the subject, the much higher public profile it now enjoys, and the growing anxieties of parents and teachers about identification and treatment all attest to the need for psychologists to be well informed and appropriately active in the field.

The report of a Working Party of the British Psychological Society, ***Attention Deficit Hyperactivity Disorder (ADHD) : A Psychological Response to an Evolving Concept*** (1997) is a thorough, balanced, and extremely informative document which should be the basis of any educational psychologist's study of,

and response to ADHD in their work with schools, parents and other professionals. It was felt, however, that there was scope for examining the concept of ADHD in its Scottish context. For example, there was a need to explore the reported incidence of ADHD across Scotland; while there was informal evidence (Hellier, 1996) of much increased identification rates, this appeared to be variable. There was also interest in how schools, parents and young people themselves were responding to the challenges of ADHD, and whether identification and provision for ADHD were being addressed in a multidisciplinary way, as advised in the Working Party document. Finally, there was a perceived need to point up the implications of this emergent phenomenon for educational psychologists and others in the education sector.

The group of psychologists involved in the ADHD project had the advantage of numbers; in all, 12 psychologists participated; all had an interest and some degree of involvement in casework with ADHD children, and most had attended one or more national or international seminars on the topic.

The tasks the project group set themselves will be described in some detail in the introductory section. Survey work was carried out by the whole group, which meant that data was collected from a wide sweep of local authority areas.

Subgroups then examined the concept of ADHD from three different perspectives.

A group comprising **Robert Johnstone, Maureen Myant, Ken Sweeney and Lesley Thomson** investigated parents' experiences and views of the process of identification and follow-up of their children's difficulties; these observations offer much food for thought for the different agencies involved; the group also looked at examples of assessment facilities and early school provision for such children.

The largest subgroup, comprising **Linda Corlett, Claire Kerr, Clare McGorry, Shona McKechnie and Sue Reynolds** carried out wide-ranging classroom observations of children already diagnosed as having ADHD, with comparison groups of classmates, using a number of published indicators as well as their own observation schedules; additional information was collated using class teacher questionnaires.

The third subgroup of psychologists, namely **William Allison, Mhairi Gibbons and Janice McClements**, were interested in the views and experiences of young people themselves; 22 secondary age children who had been diagnosed at some point as having ADHD were interviewed, and information on various aspects of their school progress ascertained from teachers who knew them well. These young people had some very pointed observations to make on their condition, medication and their school experiences.

The volume of work produced by the group as a whole was extensive; some very pertinent material such as a wide range of intervention strategies, details of visits and interviews have been consigned to appendices. Other data have been omitted, but might be made available by the authors on request.

A list of the contributors, along with current contact addresses is contained in the final appendix: please make direct contact with the authors on any point of information.

## **INTRODUCTION : THE CONCEPT OF ADHD**

*Linda Corlett, Clare McGorry and Sue Reynolds*

### **TERMS AND DEFINITIONS**

Attention Deficit Hyperactivity Disorder (ADHD) is a medically diagnosed condition characterised by excessive inattention, impulsivity and overactivity which cannot be explained in terms of intellectual impairment, emotional disturbance, or defiance. A type of Attention Deficit Disorder without hyperactivity has also been identified but in practice the single expression ADHD is often used to apply to both types. In the USA, ADHD is classified as a mental disorder under the criteria contained in DSM IV (the Diagnostic and Statistical Manual of the American Psychiatric Association, 1994, Appendix A). Diagnostic criteria include onset before six years, a duration of at least six months, and the presence of the behaviours in more than one setting. In Europe the term used is 'hyperkinetic disorder' which is well established and based on the more selective criteria of the World Health Organisation ICD10 document (International Classification of Diseases, 1990, Appendix B).

### **HOW COMMON IS ADHD?**

#### **Prevalence in the USA and Canada**

The literature on ADHD suggests that the prevalence rate in the USA and Canada is anywhere between 2% and 10%. Most epidemiological studies are, however, based on the criteria found within DSM III which are less stringent than those within DSM IV. Although the official definition of ADHD is that of a mental disorder, the term has become exceedingly widely used within the public domain. It can now be regarded as an inclusive category which undoubtedly has a high profile within North American culture.

## Prevalence in the United Kingdom

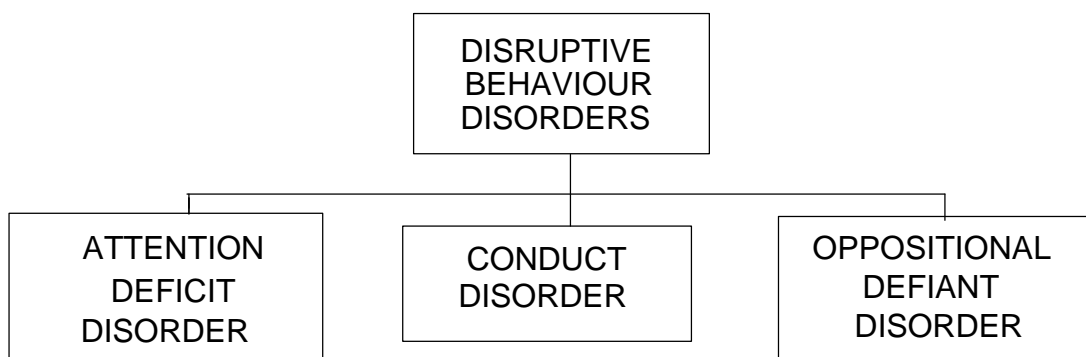
The use of the more exclusive diagnostic system of ICD 10 in the United Kingdom, with its strict requirements for persistence and pervasiveness, means that the number of children meeting the criteria for Hyperkinetic Disorder is far less than that reaching DSM IV criteria. The estimated prevalence in the UK is 1.5% in seven year old inner city males and approximately 0.5% to 1% of the child population, (Taylor et al, 1991; Taylor and Hemsley, 1995). There is broad agreement that around 1% of children have a severe pervasive disorder which has a significantly detrimental effect on their development.

## Gender differences

Males diagnosed with ADHD outnumber girls by a minimum of four to one. In the case of attention deficit without hyperactivity, the ratio is reported as being 1:1 (Cooper and Ideus, 1996). There is evidence to suggest that girls are less likely to be identified as their behaviour is often less high profile (Hynd and Hooper, 1995).

## A Nineties phenomenon?

The term Attention Deficit Disorder first appeared in the DSM III document published in 1980, which placed it in the disruptive behaviour subcategory along with oppositional defiant disorder and conduct disorder. (Figure 1)



**Figure 1: DSM III Categorisation of ADD as a disruptive behaviour disorder**

A seminal document by the British Psychological Society (1997 p 14) suggests that the phenomenon is best regarded as an evolving concept viewed within the context of previous attempts at categorisation, which are reported as follows:

**(i) organic deficits of moral control to Minimal Brain Dysfunction (1902-1950's)**

In 1902 a group of children whose behaviour was restless and who were unable to sustain attention was identified. It was argued that the causal factor was volitional inhibition of a biological origin. Interest in the phenomenon was renewed after the First World War when similar characteristics were observed in children whose behavioural problems stemmed from encephalitis. This observation together with the discovery in 1937 that amphetamines could reduce levels of hyperactivity, combined to reinforce the notion that this was a distinctive group whose difficulties were biological in origin. By the 1950's the diagnostic category of Brain Injured Child Syndrome was being applied to a wide range of children who in most cases had no hard signs of neurological dysfunction.

**(ii) Minimal Brain Dysfunction to Hyperactivity (1960's)**

In the 1960's, reference to an assumed aetiology was dropped and observed behaviour became the defining feature, thus the concept of ADHD had started to emerge.

**(iii) Hyperactivity to Attention Deficit Hyperactivity Disorder (1970's -1990's)**

A number of researchers believed that the distinguishing feature of the group of children in question was attention rather than hyperactivity. Research findings that hyperactive children performed poorly on standardised tests of attention led to the inclusion of Attention Deficit Disorder in DSM III. Subsequent research studies, however, have not supported the notion that there is a direct link between the performance of hyperactive children and the psychological mechanism of attention. To date the research evidence regarding the cause of the phenomenon is inconclusive although there is now broad consensus that the biochemistry of the brain is implicated. Specifically, the frontal lobes

appear to be involved in regulating activity levels in general and attention in particular. Some studies suggest that the rate at which the brain uses glucose in this area is slower than average in those children who show signs of hyperactivity. The publication of DSM IV in 1994 saw the introduction of the term Attention Deficit Hyperactivity Disorder.

### **Co-morbidity**

Research suggests that children diagnosed as having ADHD also tend to have other emotional, behavioural and educational difficulties which may interact with ADHD and impair educational performance.

### ***Social and emotional problems***

According to Wodrich (1996), of the children diagnosed as having ADHD:

- 45% also have conduct disorder
- 60% also have oppositional and defiant behaviour
- 25% also have anti-social or delinquent behaviour
- 33% also have clinical depression
- more than 50% have emotional problems
- more than 50% have social skills problems
- 30% of have anxiety disorder

### ***Learning problems***

According to Cooper and Ideus (1996), of the children diagnosed as having ADHD:

- 90% show significant signs of underachievement in school
- 60% have handwriting difficulties
- 20% have reading difficulties

## **WHY IS THE CONCEPT OF ADHD PROBLEMATIC?**

ADHD is best described as a complex set of behaviours which forms part of the continuum of emotional and behavioural difficulties and which is unlikely to fit into a single category. Despite this, the term has found its way into the public domain and is used in an increasingly inclusive way to describe a heterogeneous group of children who display varying patterns of overactivity, impulsivity and/or inattention. It has become the most commonly diagnosed behaviour disorder of childhood but there remains significant confusion about the concept. At the root of this confusion are the following factors:

- there are two separate diagnostic systems in use, each of which has different versions (DSM II, DSM III, DSM III-R, DSM IV, ICD 9, ICD 10); consequently, studies of ADHD often suffer from a lack of clarity in the criteria used to select samples, thus different studies may include different samples based on different criteria which in turn leads to varied results
- the diagnostic systems themselves are open to interpretation (for example the use of the term 'often' in DSM IV)
- studies depend heavily on data from questionnaires and interviews which are susceptible to a lack of objectivity
- cultural demands can influence the prevalence rate
- there is a high rate of co-morbidity with other social, emotional, behavioural and educational problems
- despite the label 'ADHD', studies do not necessarily support the notion of attentional mechanisms being involved (see section above)
- there is no requirement in the UK for categorisation or labelling in order to provide for Special Educational Needs; this differs from the situation in the USA where

labels are needed under the Individuals Disabilities Education Act (Public Law 101-476) which authorizes and funds Special Education Services

- the circularity of the evidence surrounding the theoretical concept of ADHD: the existence of ADHD is defined by the behaviours exhibited and the behaviours are exhibited because of ADHD.

## **ASSESSMENT OF ADHD**

### **The need for caution**

The BPS document (1997) sounds a cautionary note with regard to the assessment process, pointing out that everyday manifestations of overactivity, impulsivity or inattention do not necessarily imply the existence of the abstract concept of ADHD. They concur, however that since the term has found its way into the public arena and is likely to remain there, a working acceptance is required. The notion of a dysfunctional filter has been explored but there is insufficient evidence to support this concept. Impaired ability in the following areas appears to be a critical feature of ADHD children regardless of whether the hyperactive component is present:

- organisational and planning skills
- self reflection and pacing of tasks
- delaying response to stimuli

In addition it has been reported that diagnosed children respond best when highly motivated in the presence of an encouraging adult.

### **The multidisciplinary nature of assessment**

Regardless of how it is conceptualised, ADHD crosses the boundaries between psychology, education and medicine. The most satisfactory outcomes are undoubtedly achieved when a joint approach has been taken to the assessment and treatment of the child. Any decision

that medication should be used as a management strategy should be taken within this context.

### **The psychologist's role in the assessment of ADHD**

The aim of the psychological assessment for ADHD does not differ in principle from that for any other child whose difficulties are social, emotional or behavioural in nature. The focus of the assessment will be on gathering as much information as possible in order to assess the functional difficulties faced by the child and devise an appropriate plan for intervention. This process should take account of the effect of other co-morbid conditions and should result in an accurate profile of the child's strengths and weaknesses. In order to be effective, the assessment will be conducted across contexts and will be drawn from more than one source, including:

- Parental interview which will involve taking a detailed family history, exploring parenting styles and parental perception of the problem, administering a child behaviour checklist (eg Conners, Achenbach or ACTeRS) which differentiates between hyperactivity and attention problems. An attempt should also be made to discriminate between incompetence and non-compliance of behaviour.
- School/teacher interview and classroom observation which will involve exploring the teacher's perception of the problem together with administering a teacher rating form such as Conners or ACTeRS. Particular care should be taken to ensure that any structured time sampling used to observe the child in class to assess levels of activity and on task behaviour (such as the TOAD) are *interpreted relative to other children in the class*. The teacher interview and classroom observation are also a source of information about the child's self esteem, self control, relationships and style of interaction with others.

- Child interview which will involve cognitive assessment, measuring basic educational attainments and an evaluation of the child's level of attention and memory for instructions. The child interview also provides an opportunity to assess the predominant learning style (impulsive, careful, determined, easily discouraged etc) and for the use of self rating scales (eg Roger's PAI, Lewis Counselling Inventory), self esteem questionnaires or solution focused approaches, particularly scaling.

### **The medical role in the assessment of ADHD**

The diagnosis of ADHD is made by a psychiatrist or a paediatrician who will carry out a three part examination including

- a complete paediatric examination
- thorough clinical interviews with the child and parent
- review of completed teacher and parent rating scales

Diagnosis will then be made by applying the criteria contained in ICD 10 or DSM IV. It is important at this stage to point out the distinction between two groups of children:

*ADHD (hyperactive) children* whose problems are with attention, impulse control, volatility, poor self inhibition and insensitivity to consequences. These children are often aggressive, unpopular and socially clumsy and feature Conduct Disorders and Specific Learning Difficulties in their profile.

*ADD (inattentive) children* who also have problems with attention but who are more likely to procrastinate, be apathetic, passive/compliant and disengaged from the social and educational process. These children are likely to be moderately unpopular, socially clumsy and withdrawn and to suffer from anxiety and depression. Girls diagnosed as having ADHD are more likely to feature in this group.

Common features of both groups of children are their tendency to low self esteem, poor language skills, poor handwriting, poor memory and organisational/planning problems.

### **The concept of attention**

The child with ADHD is frequently described as being inattentive or having a poor attention span. It is therefore important to be aware that there are a several different *types*, *qualities* and *capacities* for attention. For example, types of inattention include

- selective attention, a learned skill which filters out extraneous stimuli
- focused attention, where child can focus on a task for varying lengths of time - it is important to differentiate between children who are never able to focus on a task and those who can focus for a short time and then need to switch activities
- divided attention, where a child can do more than one thing at a time and do them completely (the ADHD child starts but then forgets in the process)
- sustained attention where a child can attend for a period of time appropriate to complete the task (the child with ADHD can usually manage for short periods only)
- vigilant attention, where a child can keep alert without drifting off (the child with ADD finds this a particular challenge).

Quality of attention can range from superficial (where the task is completed with no real effort or understanding) through fixated attention (where the child becomes preoccupied and unable to move on) to passive attention (where the child is bored and hard to motivate).

The capacity for attention will be influenced by the nature of the task, its familiarity to the child and the level of arousal required.

Information from interviews with two consultant psychiatrists concerning their perceptions of the medical role in identifying and treating ADHD appears in Appendix 1.

## **INTERVENTION STRATEGIES IN SCHOOLS FOR PUPILS WITH ADHD**

The Project Group identified a need to consider the type of advice to offer colleagues in educational psychology, and in teaching, on the most effective ways of managing children with ADHD and assisting schools in formulating effective strategies. Key issues for the group were those of keeping a psychological and educational perspective in the face of a medical phenomenon, and maintaining an emphasis on solution focused problem solving within an ecological framework. Although the group accepted the importance of this area of the work, the scope of the project did not allow this topic to be developed in any empirical way in the course of the project. The group was able to survey and compile from other sources, suggestions from existing knowledge and good practice in the field. These appear in Appendix 2.

As all children are different so too are children with ADHD and therefore a prescriptive approach is not advised. Each child needs careful individual assessment and a detailed description and profile of strengths and difficulties drawn up. One of the key issues in successful management will be the appropriate use of contextual factors. Many teachers will provide effective management strategies for children with ADHD through their existing skills in class-room organisation, behaviour management and ability to provide creative, flexible and personal learning programmes for children with special needs or difficulties. More knowledge and information on the specific problems encountered by children with ADHD and how these can be re-framed and utilised as strengths will facilitate these teachers' success in catering for them within the most normal environment.

As with all learning and behaviour difficulties, intervention needs to be considered at three levels:

- whole school
- classroom
- individual

Interventions will be discussed under these three headings in the Appendix.

**Behavioural approaches** seem to be the most effective in the management of pupils with ADHD. Most children respond very well to a positive approach to behaviour using rewards

and praise for good behaviour. This is also true of children with attention difficulties and over-activity, however it may also be important to couple this with a response cost management strategy. Pupils with ADHD pose special challenges to their teachers who will need to adapt the learning environment and their teaching styles to compensate for distractibility, limited organisational skills and low tolerance of frustration. Each child with ADHD is different and a prescriptive approach will not work. However, carefully planned and structured teaching intervention is vital to facilitate and complement the effect of **medication**. The British Psychological Society's view on intervention strategies recommended under the heading ADHD is that they are also beneficial for other children but that a few children may need detailed individual programmes. The BPS Working Party acknowledges that there is a convincing body of research which endorses the view that medication can facilitate parenting and teaching in conjunction with psychological, educational and social support. It calls for a multidimensional model of assessment and intervention which takes account of the interplay between contextual and individual factors.

Connor et al (1997) observe that a model for the management of ADHD is likely to involve a combination of elements including educational management, behavioural management, possible use of medication on a short term basis and a coherent planned approach to the management of the child which is agreed by home, school, educational psychologist, medical practitioners and other professionals working in partnership. Close liaison with regular monitoring and evaluation will be necessary in ensuring the effective management of these elements.

Some local authorities have produced policy guidelines to assist in the development of a multi agency model of assessment and intervention (eg Hampshire Psychological Service). While similar developments are also underway within Scotland, the project group suggests it would be helpful for an agreed strategy to be generally adopted.

In conjunction with the development of policy guidelines further research is required to evaluate the different intervention approaches and investigate their impact on classroom practice and the home.

## **FOCUS OF THE CURRENT STUDY**

ADHD is a relatively recent phenomenon in Scotland and psychological services appear to vary widely in the extent to which they are involved both in the assessment and diagnosis of this group of youngsters. There was no clear information on the incidence of ADHD in a Scottish context, either within or across authorities; it was therefore decided that this should be the starting point of the study. A survey of nine psychological services in Scotland was carried out in order to obtain some gauge of the incidence of children who have a medical diagnosis of ADHD and to ascertain what percentage of these was known to psychological services.

It was clear from the literature that there were different key issues affecting outcomes for children at the pre-school, primary and secondary stages. For pre-school children, the detection and management of the condition, and the communication of this information to parents were seen as critical issues. At the mid-primary stage, the group identified classroom management issues and how children performed in comparison with their peers. By secondary school, the young persons themselves would be expected to take some responsibility for monitoring their own behaviour but the extent to which they did so would presumably depend on their understanding of the problem. However, little research information existed in this area.

The ADHD project group therefore formed three subgroups to investigate some of the key issues at each of these stages, viz:

### **Pre-school subgroup**

- to investigate the available provisions and strategies.
- to conduct in-depth interviews with parents to determine how to improve detection and management.

### **Primary school subgroup**

- to pilot a package of rating scales and observation schedules and to evaluate whether the materials were useful for differentiating between pupils with and without ADHD.
- to evaluate whether the materials are useful for diagnosis and intervention.
- to compare profiles of pupils diagnosed with ADHD with a representative sample of their peers.

### **Secondary age subgroup**

- to determine the extent to which this group of young people have been informed of their condition and to collate their views on its implications for their education and relationships
- to learn about the severity of their condition and the implications for practice.

The overall objective in carrying out the survey and these three particular pieces of work is to provide educational psychologists and others working in the field with an up to date overview of the phenomenon in its Scottish context. The final chapter will draw out important implications for these practitioners. There will also be a manageable bibliography, condensed from the massive literature on the topic.

## **A SURVEY OF THE INCIDENCE OF ADHD IN A NUMBER OF AREAS OF SCOTLAND**

It was noted in a previous section that the incidence of ADHD appears to vary greatly. Figures from the USA and Canada suggest figures between 2% and 10%. In the United Kingdom however, it would seem that the prevalence is estimated to be between 0.5% and 1% of the population. The differences, as noted earlier, are at least partly due to prevalence studies in the United Kingdom using more stringent criteria for diagnosis of ADHD.

Anecdotal evidence among psychologists participating in the present project is suggestive of a wide disparity in numbers of children diagnosed in different areas of Scotland.

This study aimed, therefore, to carry out a more detailed survey of a number of psychological services across Scotland with the following objectives:

1. To determine the number of children in education who are known to have a medical diagnosis of ADHD.
2. To compare incidence rates in different areas.
3. To examine the characteristics of such children as rated on a simple rating scale.
4. To determine the percentage of such children known to psychological services and with Records of Needs.

### **METHOD**

Questionnaires were given to every educational psychologist in 9 psychological services in Scotland (see Appendix 3). Psychologists were then asked to speak initially to the head teacher of every school for which they were the link psychologist, requesting them to complete a questionnaire. It was anticipated that there would be a considerable number of nil returns given the known figures of prevalence. The questionnaire was designed to be easy and quick to administer, and had three parts:

**Part 1** obtained basic information about the school, i.e. name, address, type of school (whether mainstream, MLD, EBD etc), school roll and the number of pupils medically diagnosed as ADHD.

**Part 2** was completed for each child medically diagnosed as ADHD, by interviewing the class teacher of the diagnosed child. This interview elicited basic factual information about that child, namely the educational stage of the child, gender, date of birth and whether or not the child was receiving medication.

The teacher was then asked to complete a ratings scale to describe the child's behaviour. Statements described 3 types of behaviour commonly associated with ADHD, viz

- **impulsive behaviour:** often blurts out answers to questions; often engages in potentially dangerous activities without thinking of consequences; has difficulty awaiting turn in groups
- **inattention:** often shifts from one completed activity to another; has difficulty listening to and following instructions; often loses things necessary for tasks, and
- **overactivity:** often fidgets or squirms in seat; has difficulty remaining seated; appears restless.

For the purpose of analysis, each statement was rated from 0 - 3; 0 = not at all, 1 = a little, 2 = pretty much, 3 = very much. The total minimum score was therefore 0 and the total maximum score was 27.

**Part 3** was completed by the school psychologist for every diagnosed child to determine whether the child was known to the psychological service, whether they had a Record of Needs and whether they had an IEP (individual educational programme) or local equivalent.

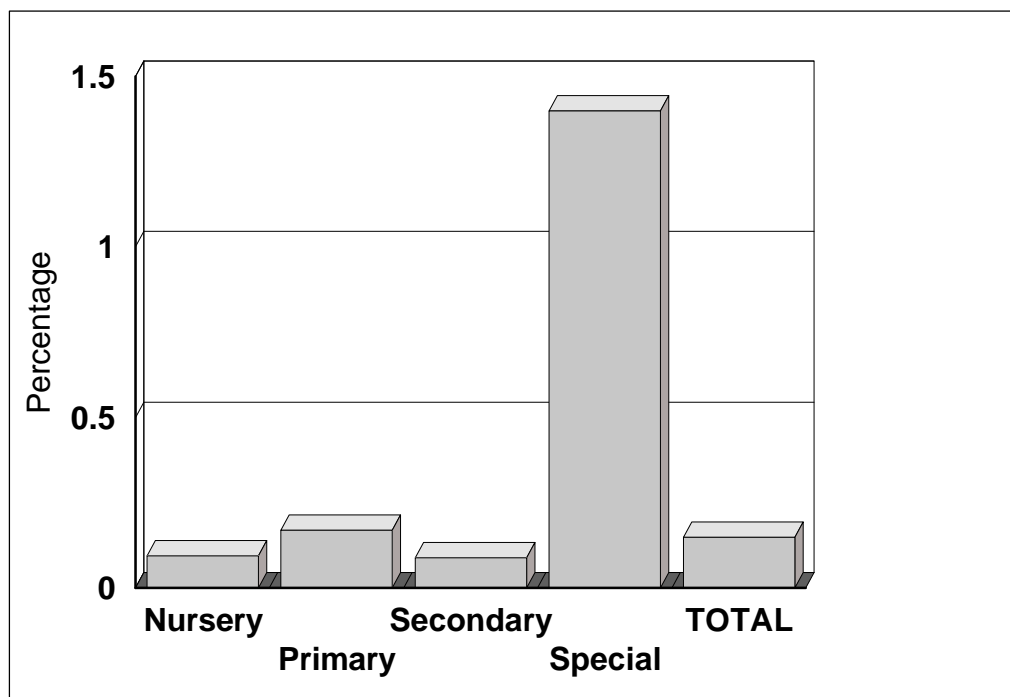
## RESULTS

### Part 1 of Questionnaire

The percentage of returns from different areas varied from 65% to 100%. The average return rate was around 80%.

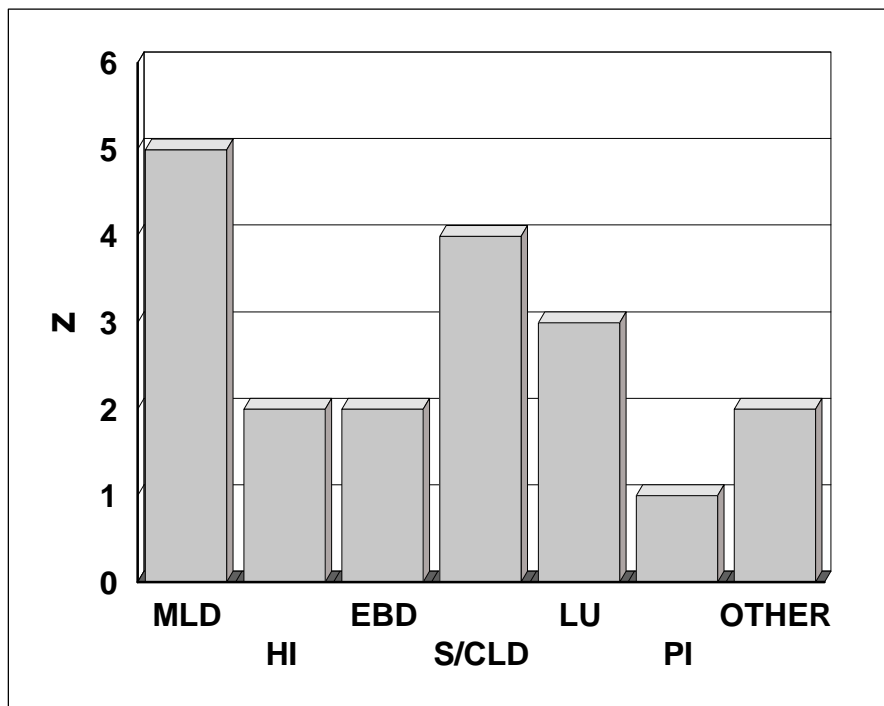
	Nursery	Primary	Secondary	Special	TOTAL
Number of school returns	107	327	68	42	544
Population of schools	8469	78634	57974	2208	147285
Number diagnosed ADHD	8	130	50	31	219
% ADHD of population	0.094	0.17	0.09	1.4	0.149

**Table 1: All Returns**



**Chart 1: Percentage of children who are diagnosed as having ADHD in each type of school.**

The percentage of children diagnosed ADHD in specialist provision is much greater than in any other type of school. Many of these children have co-morbid difficulties e.g. autism, deafness. The individual returns for these children were analysed to look in more detail at the types of specialist provision, the assumption being that this would give some idea of the nature of the children’s difficulties other than ADHD. Chart 2 shows the breakdown by type of provision. Information was only available for 19 cases.



**Chart 2: Analysis of ADHD in Specialist Provision**

(MLD: Moderate Learning Difficulty

HI: Hearing Impairment

EBD: Emotional/Behavioural Difficulty

LU: Language Unit

S/CLD: Severe or Complex Learning Difficulty

PI: Physical Impairment)

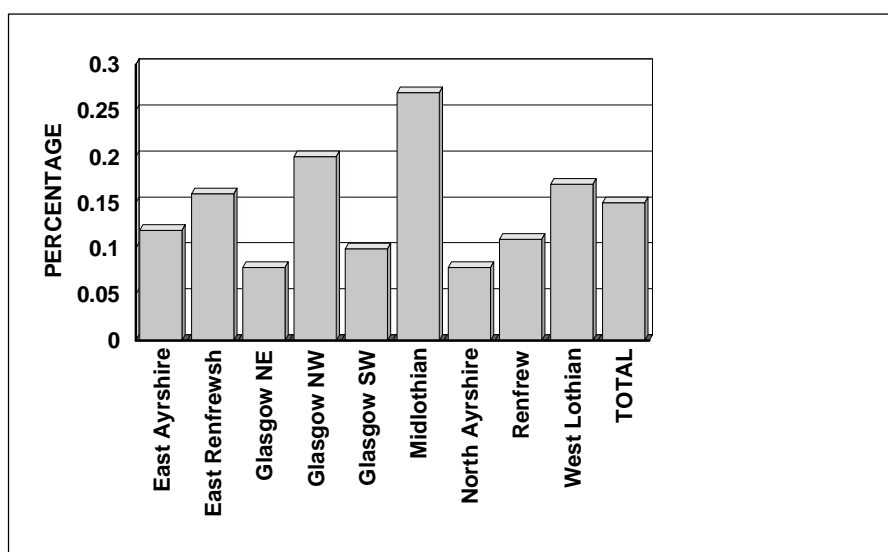
The figures were then broken down by area to see if there were any differences in the prevalence of ADHD across the different psychological service areas. Table 2 shows the

number of children diagnosed as ADHD in each area, along with the percentages.

Psychological Service	Number of ADHD cases	Percentage of ADHD cases
East Ayrshire	13	0.12
East Renfrewshire	27	0.16
Glasgow NE	10	0.08
Glasgow NW	38	0.20
Glasgow SW	14	0.10
Midlothian	38	0.27
North Ayrshire	15	0.08
Renfrew	18	0.11
West Lothian	46	0.17
TOTAL	219	0.15

**Table 2: Number and percentage of children diagnosed ADHD in each area**

Chart 3 shows the percentage of children diagnosed in each psychological service area as having ADHD.



**Chart 3: Percentage of children diagnosed ADHD by area**

The incidence ranges from 0.08% (Glasgow NE and North Ayrshire) to 0.27% (Midlothian). This incidence rate is clearly not as great as the reported incidence rate of between 0.5% and 1% in the rest of the United Kingdom.

**Part 2 of Questionnaire**

The individual returns for children diagnosed ADHD were analysed. As some individual returns were incomplete, the number analysed was 193. Of these only 17 were female i.e. 9% of the total. This suggests that the male to female ratio in this survey was 9:1 compared with 4:1 in other surveys.

The number of children in the sample receiving medication was 153. This amounted to 78% of those diagnosed.

The percentage of children on medication varied by stage and type of school, as can be seen from Table 3. However, further analysis showed that the correlation between date of birth and medication was not significant.

	Nursery	Primary	Secondary	Special
Number of children diagnosed	5	127	44	17
On medication	3	102	34	12
Percentage on medication	60%	80%	77%	71%

**Table 3: Number and percentage of children on medication at each stage**

Finally, the results of the ratings scale were analysed. The range of scores obtained was from 0 (9 children) to 27 (10 children). The top 20% of cases scored 25 and above and the bottom 20% scored 7 and below. Further analysis of the child characteristics (Impulsivity, Inattention and Overactivity) was carried out to establish whether there were any

correlations between these characteristics and the stage of education, date of birth and status of medication. All were uncorrelated.

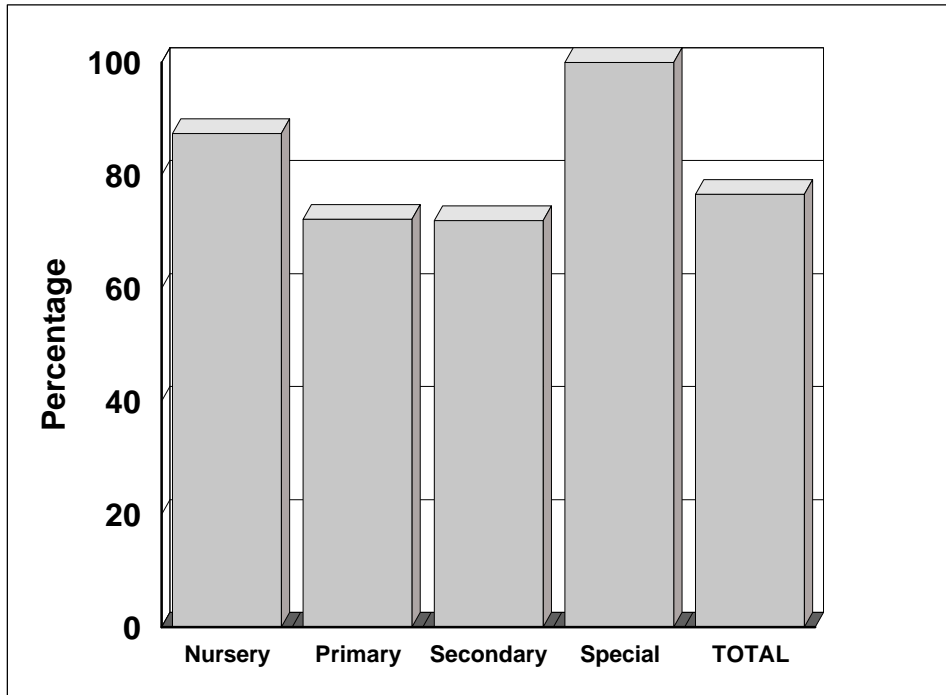
### Part 3 of Questionnaire

This part of the questionnaire is related to input by the psychological service. Table 4 summarises the contact with the psychological service.

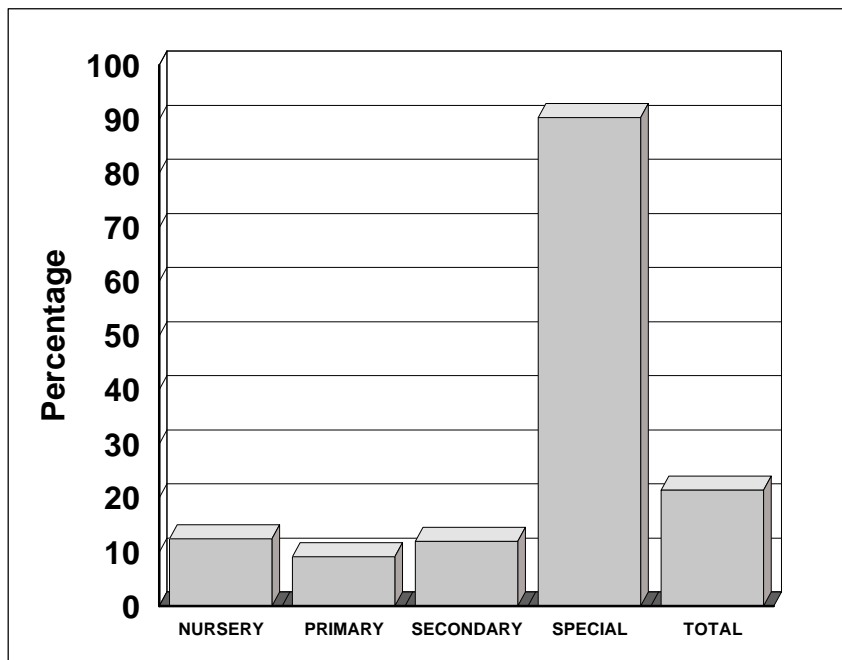
	Nursery	Primary	Secondary	Special	TOTAL
Number diagnosed ADHD	8	130	50	31	219
Number known to PS	7	94	36	31	168
Number with RON	1	12	6	28	47

**Table 4: Psychological Service Contact**

Chart 4 shows the percentage of children with ADHD at each type of school who are known to their psychological service. This varies from around 70% to 100%. Chart 5 shows the percentage of children with Records of Needs at each type of school. The mainstream sectors are fairly constant at around 10% with 90% of children with ADHD in the specialist provision having a Record of Needs.



**Chart 4: Percentage of children known to psychological service by type of school.**



**Chart 5 : Percentage of children with ADHD who have a Record of Needs**

## DISCUSSION

It is apparent that the incidence rate of diagnosed ADHD is significantly smaller in this survey than in the rest of the UK. Taylor and Helmsley (1995) suggest that the prevalence in the UK is approximately 0.5% - 1% which is lower than the rate reported in the USA and Canada. In this survey even the highest reported rate of 0.27% in Midlothian is only half the lower rate suggested by Taylor and Helmsley, while the lowest rate of 0.08% in NE Glasgow and North Ayrshire is a sixth of this. Differences in prevalence rates are often put down to different diagnostic criteria being used. In the UK studies, the more rigorous criteria of the diagnostic system ICD 10 is used. It is assumed that this is the case in the Scottish sample. That being the case, why then is there still such a difference? One possibility is that the diagnostician makes a difference. Psychiatrists with an expertise in the field are known to be working in the two areas with the highest rates in this survey, i.e. Midlothian and NW Glasgow . Another possibility is that there is a difference in the number of GPs referring on to consultants. This is backed up case study evidence (see Section 4) where parents reported GPs who either knew little about ADHD or were dismissive of the condition as a whole. It is also possible, though unlikely, that the sample is skewed by the slight differences in return rates. However this would not explain the difference between two areas of the same city showing quite different prevalence rates when both areas had 100% returns. NW Glasgow reports a rate of 0.2% whereas NE Glasgow has a rate of 0.08%, the lowest in this survey. Finally, it could be the case that not all children diagnosed as ADHD are known to the schools. A minority of parents may withhold this information from schools and if the child is medicated it may be that their behaviour is not noticeably different from that of their classmates (see section 5). This could also partly explain the apparent difference in the percentage of children with ADHD in specialist provision. Most children in specialist provision will have a Record of Needs and be assessed by different

professionals. In these cases, it is very unlikely that the parent would want to or indeed be able to withhold medical information.

This comparatively high number of children with ADHD in specialist provision is also interesting with regard to co-morbidity. It has been suggested that children with ADHD often have other difficulties such as emotional and behavioural problems or learning problems. Wodrich (1996) proposed that over 50% of children diagnosed as ADHD have emotional problems and Cooper and Ideus (1996) claimed that 90% show significant signs of underachievement with 20% having reading difficulties. The figures in this survey suggest that there is a high level of co-morbidity with other difficulties such as moderate and severe learning difficulties. At times, as shown in one of the case studies (see section 4) the child's condition may mask the ADHD or at least make professionals less open to the suggestion that the child has ADHD as well as learning difficulties, hearing impairment or any other disabling condition.

Part 2 of the questionnaire looked in more detail at the individual returns. It is striking that a ratio of 9:1 male to female was found in this survey. The ratio of males to females with ADHD is generally accepted to be 4:1 (Cooper and Ideus 1996). Hynd and Hooper (1995) found evidence to suggest that girls are less likely to be identified as ADHD as their behaviour difficulties are not as observable. In addition, certain cultural factors may be influencing the high number of boys identified as having ADHD in Scotland. Many children experience an aggressive home background and view violence as a means of resolving conflict. Clearly, this is at odds with a predominately female teachers' perspective of acceptable behaviour. The numbers of children on medication varied from 60% at the pre-school stage to 80% at secondary. The fact that pre-school children are being medicated is a cause for concern. Medical guidelines state that children below the age of 6 should not be prescribed Ritalin. The survey found no correlation between medication and behaviour.

It is worth noting that the vast majority of children with ADHD (86%) attend mainstream schools. Of these, 73% are known to psychological services. Hence for at least some children with ADHD, behaviour management by either medication and/or the school's resources seems to be sufficient. This view is also supported by the fact that only 10% of ADHD children in mainstream education have records of needs or IEPs.

With regard to future research, it would be worth exploring the variations of incidence of ADHD between areas. One factor which could be explored is that of deprivation. Are the children of middle class parents more likely to be diagnosed with ADHD than those from more deprived areas? An examination of the figures in the light of an index of deprivation such as clothing grants or free school meals might shed some light on this.

The high male to female ratio is also worth further exploration, perhaps with medical figures to corroborate the findings of this study. Finally, of particular interest to educational psychologists would be further study of those children with ADHD, in mainstream education who appear to be unknown to psychological services. Are they being adequately supported? Is it correct to assume that because they are not referred, they do not cause any concern? What is it about them or their school that allows them to enjoy success in their schools? After all, evidence from the case studies in section 4 suggests that for many young people with ADHD and their families, their experience of the education system is less than happy. More knowledge of what can help to make school a success may allow us to ensure that fewer parents feel betrayed by the system or see it, as one parent did, as 'a terrible experience.'

## EARLY YEARS, TEARS AND FEARS

*Report of the Preschool subgroup : Robert Johnstone, Maureen Myant,  
Ken Sweeney and Lesley Thomson*

### INTRODUCTION

ADHD is usually considered a particular condition of childhood and early adolescence (BPS, 1997). As a problem which is assumed to be neurobehavioural, it is likely to manifest itself throughout the lifespan. The focus of this sub-group was to try to explore issues around the preschool and early primary school stages of development. There has been a dearth of prospective, longitudinal data but clearly these earlier developmental stages are particularly important in the assessment of and early intervention for the condition.

There is relatively little published information about ADHD in infancy. Lahey et al (1994) found that the new DSM IV criteria identified more preschool children than the previous criteria. It is clearly problematic to ascribe a disorder to a young child on the basis of symptoms which are present to some degree in all young children. Anastopoulos, Barkley and Shelton (1995) suggest that ADHD should not be diagnosed in children under the age of three years and that the term 'at risk of ADHD' might be more appropriate at this stage. The low detection of ADHD at the preschool stage is reflected in the results of the survey carried out. There is a clear conflict here with the desire to achieve early intervention and prevent secondary problems.

Understandably, as children enter the formal schooling system the detection rate increases. There is an interactive effect whereby the context requires children to attend to tasks for longer periods and often to sit for longer periods. This is likely to further highlight children who have difficulty with these types of demands. There is also comorbidity with learning

difficulties for a significant number of pupils. Richards (1995) quotes American estimates that 33% of ADHD children can also be described as having reading problems. Lufi and Parish-Plass (1995) have noted a lack of persistence at tasks which is likely to have a negative effect on school work. Children are also likely to be detected due to difficult behaviour and/or peer rejection. Erhardt and Hinshaw (1994) note that hyperactive boys are more likely to be rejected by their peers. Peer rejection will have different consequences for the child, depending on whether the child elects for social withdrawal and isolation or attempts to become accepted by other misbehaving children. Wheeler and Carlson (1994) state that those without hyperactivity tend to be both inattentive and disorganised but less likely to have behavioural difficulties.

The developmental paths of childhood ADHD are as yet unclear. There is no inevitability of outcomes. The persistence and pervasiveness of ADHD behaviours are associated with learning difficulties. The absence of co-occurring conduct problems is associated with better educational outcomes.

Outcomes are greatly influenced by the mediating variables of school and family environments and consequently early detection, understanding and intervention are desirable in managing the impact on development.

## **AIMS**

The aims of this sub-group were:

- to investigate some of the provisions or strategies that had been set up to meet the needs of children with ADHD at the preschool and early primary school stages
- to follow up through in-depth interviews a sample of pupils diagnosed as having ADHD in order to determine how detection and management of the condition might be effected at the preschool and early primary school stages.

## **PROVISIONS**

In reality, there are very few resources or provisions which cater specifically for children who have or are 'at risk of ADHD'. In the course of the project work, however, some specific resources were identified. They were felt to be a useful source of ideas or approaches as to how to assess or support ADHD at different stages.

At the preschool stage the main specialist resource is a targeted programme run by a health trust, with support from the Child and Family Trust, for preschool children who have been diagnosed as having ADHD. This programme is described in detail in Appendix 4.

The advantages of such a programme are: that it is targeted specifically at the needs of this group; that it provides a structured programme for the children; that the parents are worked with and supported in parallel; that it provides 'hands on' training for a range of workers; and that it tries to intervene before children begin formal schooling.

At the primary school stage no specialist provision solely for pupils who have ADHD was identified. The unit provision described in detail in Appendix 5 aims to help children who have motor learning difficulties. It was evident, however, that many of the pupils had ADHD and around fifty per cent of the pupils had been prescribed Ritalin. What was in evidence here was the overlap between children who have ADHD, DAMP (Disorders of Attention Motor Control and Perception) and other neurodevelopmental disorders as highlighted by Landgren, Pettersson, Kjellman and Gillberg (1996). While the provision was, therefore, more all-embracing in the range of neurodevelopmental disorders it did exemplify a more focussed and specialist approach at the primary school stage.

The advantages of such a provision are: that it provides a focussed and specialised approach to supporting problems in attention, motor control and hyperactivity; it offers a split and flexible resource with the pupil's local mainstream primary school; it addresses

co-morbid problems, particularly learning difficulties; it fosters an interdisciplinary collaboration; and it aims to reintegrate children into their local mainstream primary school. The third type of provision which was identified as being beneficial and was specific to parental needs was the parent support group. A meeting with one local group from the ADHD West of Scotland Support Group is described in Appendix 6.

The advantages of such a group are: that it provides parents with support in dealing with this disorder; that it offers a forum to share practical strategies and experiences; that parents can learn more about the condition; and that parents can have a more effective voice with professionals and other bodies.

## **CASE STUDIES**

In order to clarify important issues which occur at the preschool and early primary school stage twelve case studies were selected from diagnosed cases from the national survey. These covered an age spectrum from preschool through to late secondary school stage. Although there was a wide chronological spectrum the focus was on what had happened around the time of diagnosis and what the experience of early education had been. In order to interview the selected cases a semi-structured interview schedule was devised. This is included as Appendix 7.

The cases selected covered a chronological age spectrum, had a mixture of sexes and represented a mixture of pupils who attended mainstream and specialist resources. A summary of the cases interviewed is included in Table 1.

For the four psychologists involved in conducting these interviews it is impossible to convey the passion and strength of feeling exhibited by these parents in relaying 'their child's story'. In every case parents still harboured feelings of frustration and resentment

about problems around the process of assessment and diagnosis. It was typical for the psychologist to be trying to terminate the interview after 90 minutes, with the parents still being keen to talk about their experiences.

CASE NUMBER	SEX	AGE	PLACEMENT	SCHOOL STAGE
1	F	4	DAY NURSERY	PRESCHOOL YEAR
2	F	5	PRIMARY SCHOOL	PRIMARY 1
3	F	6	LANGUAGE UNIT	PRIMARY 2
4	M	7	EBD SCHOOL	PRIMARY 2
5	M	7	PRIMARY SCHOOL	PRIMARY 3
6	M	8	PRIMARY SCHOOL	PRIMARY 3
7	M	8	MLD SPECIAL SCHOOL	PRIMARY 4
8	M	9	PRIMARY SCHOOL	PRIMARY 5
9	M	11	PRIMARY SCHOOL	PRIMARY 6
10	M	12	SCHOOL FOR THE DEAF	SECONDARY 1
11	F	12	SECONDARY SCHOOL	SECONDARY 2
12	M	15	LIST 'D' SCHOOL	SECONDARY 4

**Table 1: Summary Data for the Twelve Cases Interviewed**

## **EARLY HISTORY**

*‘I was following all the guidelines but nothing was working’*

In collating the information from the twelve case studies, a number of commonalities are immediately observable with regard to the early developmental history of the children.

All of the children in the case studies were fit, with no health problems. Nevertheless most parents were concerned about their child from very early on, often because of sleeping difficulties. Nine of the children had (and generally still have) disturbed sleep patterns, ‘she was only sleeping 4 hours a night’; ‘the whole family is disturbed because he’s up till five every morning’.

A common picture is of a very active baby and toddler, with one mother saying she was 'often kept awake at night with him kicking in the womb'. Others described their children as 'into everything' and 'hyperactive'. One child was even known to the extended family by the nickname 'hyper'. Most of the children had normal developmental milestones with only two showing delayed development. In fact, motor development was often advanced, with walking starting before the first birthday. The picture of an overactive child is strengthened by many of the children having a lack of awareness of danger. One child 'would climb up onto the top of the wardrobe to play', while another 'would bang his head off doors and radiators and show no sign of pain'.

Many parents felt that from a very early age something was wrong with their child, 'something was missing in him, like a piece of a jigsaw'. Most were concerned from early on about behaviour, seeing their child's behaviour as being different from that of other children, and were active in seeking advice and help for their child. Of the 12 parents, 8 perceived similarities to other family members in their child's behaviour. This was mainly related to the father's behaviour as a child. Although most of the affected children had siblings, only one mother felt that any of her other children have ADHD or behaviour problems.

Finally, 11 of the parents felt that professionals blamed them for their child's behaviour, 'GPs are under the illusion that it's the parents' fault'. Another parent felt that the clear message from the hospital was 'it's all your fault', while another thought that parents are rarely listened to in a hospital setting.

## **PROFESSIONAL INVOLVEMENT**

### ***'An absolute bloody travesty'***

An interesting feature in all of the cases was the number of professionals involved with the children. In all cases the parents reported contacts with at least 6 professionals, and in one case there were as many as 15 professionals involved. The list included GPs, health visitors, consultant paediatricians, community paediatricians, consultant psychiatrists, clinical psychologists, educational psychologists, teachers, speech and language therapists, occupational therapists and social workers.

In 7 out of the 12 cases parents commented that their involvement with professionals was a very negative experience for them, and that input could have been improved if there had been fewer people involved. For example, in one case the parents reported that they had had contact with 3 educational psychologists and 6 speech therapists.

One parent described her experience as 'horrendous' and 'an absolute bloody travesty.' In another case the child's behaviour at nursery was put down to suspected abuse at home and the Social Work Department became involved. This became nightmarish for the family with the child being taken into care at one stage.

'You need one person' - three parents commented on the need for having a key professional, to coordinate information, visits, etc., and to prevent developmental histories being repeated time and again.

Despite the involvement of so many professionals, the perception of most parents was that advice from professionals was often conflicting and that they were provided with little practical support.

Communication amongst professionals and with parents in 10 of the cases was seen to be a significant factor in parental dissatisfaction. Better liaison between professionals and effective multidisciplinary work, so that everyone knew what everyone else was saying, was

thought to be essential. Many parents felt that if there had been better communication, it may have led to an earlier diagnosis of the problem. Many parents commented on what they perceived to be a lack of knowledge amongst professionals about ADHD and associated problems.

All of the parents strongly expressed their sense of frustration throughout their involvement with professionals. They accuse the involved professionals of consistently failing to listen to them and accept their views. Comments included, 'I'm wasting my time', and 'nobody wanted to know'. A common theme was that parents felt that they were being blamed for their child's behaviour; that the fault lay in their management of the child, even in the face of evidence to the contrary, i.e. where there were other siblings in the family who were well adjusted in terms of their behaviour. Some parents reported a change in attitude amongst professionals when the diagnosis of ADHD was finally made.

Implications for educational psychologists would be as follows:

- better communication with parents and other professionals should be fostered.
- listen to and accept what parents are saying about their child.
- A multidisciplinary approach to ensure early identification and intervention
- consideration should be given to having a named person to link with parents

## **DIAGNOSIS**

*'Don't be so stupid'.*

There was a great deal of commonality in the parents' experiences of the process of diagnosis. In the majority of cases, 8 out of 12, the first suggestion of ADHD came from the parents themselves. This was not always met with receptivity. Often parents went back and forth to their GP as they did not seem to listen. For one parent, who wrote down the

details of the condition and went to see the psychiatrist involved with her child, she reports that he laughed at her and told her, 'Don't be so stupid'.

Although 5 out of the 12 cases explicitly mentioned frustration with the process of diagnosis, ultimately the condition was confirmed by a consultant psychiatrist or consultant paediatrician in all of the cases.

For the significant majority of parents, 10 out of 12, the diagnosis was something positive.

One parent had been pushing for two years for a diagnosis said that it was 'a big relief'.

Another parent commented 'that meant a lot to me as I'd always been told that I was a bad parent'. For the other two families it is more that they do not feel that a clear diagnosis has been made: one of these families felt that they were not given a clear explanation; the other family had the impression that the diagnosis has to be 'rubber stamped' by the specialist.

Comorbidity with other types of special needs was an issue in half of this sample. This has to be noted by psychologists and other professionals since the identification of one major category of special need often seems to blinker professionals to the possible presence of other major areas of special need. The most striking cases in this category were: a girl who is dyspraxic and attends a language unit not being diagnosed as having ADHD until the age of six; and a boy with profound hearing impairment who was not diagnosed as having ADHD until the age of eleven. In the latter case the mother, who is a pharmacist, read an article in a trade magazine on Ritalin, that matched the symptoms she was reading about to her son's difficulties.

A majority of the sample, 9 out of 12, were currently receiving medication. In the majority of these cases the parents felt that medication had a marked positive effect. If children were not on medication, this was either because the children were too young or because parents disagreed in principle. It was only the eldest pupil in the sample, diagnosed at age thirteen,

for whom medication had not seemed to have a beneficial effect. Within these results, however, it has to be recognised that some children went through a period of trials before the optimum drug and dosage were achieved.

For 3 out of the 12 cases the only additional support or treatment which was offered was behaviour modification. For all other 9 a more varied pattern of supports such as counselling, family therapy or more specialised programmes had been offered.

Implications for educational psychologists are summarised below:

- it is vital to listen to the parents as they often are the ones to identify the symptoms or raise the possibility of the diagnosis
- the diagnosis has to be made officially by a consultant psychiatrist or consultant paediatrician
- the diagnosis itself is therapeutic and for most parents brings a significant sense of relief
- comorbidity with other types of special need is prevalent and psychologists require to be open minded and alert to this issue
- medication has a beneficial effect in a majority of cases; behaviour modification has its place as a treatment but seems more effective as part of a wider programme of interventions and supports.

## **EDUCATION**

### ***'People just don't know what's going on'***

Given differences in the children's age, gender, geographical area and individual special needs, the parents interviewed shared similar experiences and views regarding the education of pupils with ADHD. The majority of children attended local authority preschool provision. The staff were generally described as sympathetic and helpful. In 3 out of 12

cases, the nursery placement broke down because of the severity of the child's behaviour and because of a lack of resources to support the child. Only 1 child had a special needs auxiliary allocated in preschool. By primary school, however, problems became more prevalent. Although more than half of the receiving schools were viewed as supportive by the parents, 5 out of 12 children experienced one or more changes of primary school and 6 were eventually placed in specialist provision. Of the 6 remaining in mainstream primary schools, 3 had special needs auxiliaries.

The majority of parents identified a lack of awareness of ADHD in schools and a lack of support for schools as contributing factors to their child's placements breaking down. One parent felt her son's management in education could have been improved 'if people had been more open minded and if more information about ADHD had been available'. Another identified 'more available resources' and 'a more supportive attitude amongst staff' as areas of need. The need for partnership with school was also evident in special school. One mother felt that beneath the rhetoric the message was 'he's your problem'. She added 'there is great need for education and training'. Another noted that her son's education would have been better if staff had been trained to recognise and manage ADHD: 'people just don't know what's going on'.

Early identification and intervention was viewed by several parents as crucial. One parent, whose son was recognised as having ADHD in P5, was repeatedly told in the early years that her son was 'just a slow learner' and that 'it's too early for assessment'.

Psychologists were criticised for failing to advise parents on the educational options available to their child. One mother, whose child's P1 placement broke down after a term, described the outcome as 'a horrendous experience which was psychologically damaging'. She felt angry that she had not been advised of alternative options for her child, eg deferred

placement or special school. Psychologists were also guilty of failing to explain processes and procedures (eg Recording) to parents and of using too much jargon.

Parents also felt that the professionals involved failed to listen to and accept the parent's views. For instance, one parent commented 'Psychologists and other people need to listen more to the parents.... we have a lot of anger that we couldn't get anyone to listen'.

Implication for educational psychologists are summarised below:

- accept the views of parents
- identify potential ADHD cases and intervene early
- ensure all the staff involved with the child are aware of ADHD and how best to manage the child
- present all the educational options (eg deferred entry, specialist placements) to parents
- explain procedures clearly; do not use unnecessary jargon
- promote good communication, especially when other agencies (eg speech therapy, social work) are involved with the child
- consider and take account of comorbidity; eg ADHD can exist alongside deafness and autism
- encourage a positive, sharing ethos in schools and nurseries.

## **ARE CHILDREN WITH ADHD REALLY *THAT* DIFFERENT?**

*Report of the Primary School subgroup : Linda Corlett, Claire Kerr,  
Clare McGorry, Shona McKechnie  
and Sue Reynolds*

### **FOCUS OF THE PRIMARY SUBGROUP**

Assessment of ADHD with the underlying aim of distinguishing between pupils who were and were not diagnosed ADHD was the focus chosen by the Primary Sub-Group. The impetus for this focus stemmed from various sources. There was a general feeling that current assessment of ADHD was haphazard and that an 'assessment pack' would be a useful starting point for fellow practitioners. There also seemed to be a need to clarify 'normal' pupil behaviour levels. The question of whether ADHD pupils display different behaviours from their peers or just higher levels of such behaviours required exploration. To this end behaviour profiles were gathered from a range of pupils to enable comparisons to be made. Consideration was given to the fact that variations could be due to a multitude of factors including the child's age, whether they were on medication, their level of academic functioning and the class context within which they were operating. The fact that further research into the assessment of ADHD was one of the recommendations of the British Psychological Society Report also motivated the group to work on this area.

Accordingly a pilot project, running between December 1997 and March 1998, looked at primary school children diagnosed with ADHD. The aims of the project were

- to evaluate whether the materials were useful for differentiating between pupils with and without ADHD
- to evaluate whether the materials were useful for informing the planning of intervention
- to compare profiles of pupils diagnosed with ADHD with a representative sample of their peers.

## **METHOD**

The study used naturalistic observations, structured interviews and rating scales to gather data. Due to possible informant biases it was felt necessary to supplement the data with objective observations. All information was gathered in the classroom context.

A sample of 21 pupils within the P2-P7 age range was identified through the survey (described in a previous chapter). Each group member followed up children within their own geographical area. In practice this meant that the sample was derived from a cross-section of central Scotland, ranging from inner city to rural areas. In order to elicit comparisons with both pupils who exhibit similar types of behaviours but are not diagnosed with ADHD and with random pupils, assessments were carried out on four other pupils in each of the target child's class. Thus, the sample size was 105 in total, comprising 78 males and 27 females.

In summary, within any one class five pupils were assessed:

- one pupil diagnosed with ADHD
- one pupil perceived by the teacher to exhibit similar difficulties
- three pupils chosen randomly from the class register ( two boys and one girl if the diagnosed pupil was a boy and two girls and one boy if the diagnosed pupil was a girl)

This focusing on children within the same class acted as a control mechanism for contextual variables such as teaching style, class management and class ethos, which are all known to impact on pupil behaviour.

The age and gender distribution of the sample of pupils examined were as follows:

<b>Stage</b>	<b>Boy</b>	<b>Girl</b>
<b>P2</b>	8	2
<b>P3</b>	22	8
<b>P4</b>	18	7
<b>P5</b>	14	6
<b>P6</b>	12	3
<b>P7</b>	4	1

**Table 1: Stage and gender distribution of sample**

The gender distribution by geographical area is depicted below.

<b>Area</b>	<b>Boy</b>	<b>Girl</b>
<b>W.Loathian</b>	20	5
<b>Fife</b>	16	9
<b>Ayrshire</b>	6	4
<b>Glasgow N</b>	36	9

**Table 2: Geographical distribution of sample by gender**

For completeness, the distribution of primary stage by area is shown in Table 3.

<b>Stage</b>	<b>W.Loathian</b>	<b>Fife</b>	<b>Ayrshire</b>	<b>Glasgow N</b>
<b>P2</b>	0	0	0	10
<b>P3</b>	15	5	5	5
<b>P4</b>	0	15	0	10
<b>P5</b>	10	5	0	5
<b>P6</b>	0	0	0	15
<b>P7</b>	0	0	5	0

**Table 3: geographical distribution of sample by Stage**

## **MATERIALS**

A variety of assessment tools already on the market, including the Achenbach Child Behaviour Checklist (1991) and the Copeland Checklist (1987) were examined. The majority of materials available are in fact rating scales of some sort. Such tools though useful for screening purposes are insufficient to confirm ADHD. Ease of use, demands on time and the types of data elicited were amongst the criteria used for selecting appropriate materials. A clear picture of the pupils' difficulties, in a format that would enable comparison between pupils with and without ADHD and inform the planning of intervention, was desirable. Triangulation of data source was also felt to be important for reliability purposes. Three assessment tools were decided upon:

### **Classroom Observation Scale (COS)** (see Appendix 8)

The Classroom Observation Scale was developed by the project group. It records the frequency of four categories of behaviours, namely *off task, talking out of turn, non-contact with chair and distracting peers*. These categories were selected to reflect the observable behaviours of ADHD pupils that impact on the class environment. Observations for each of the categories are totalled over the time period to enable between subject comparisons. Thirty-second interval observations over ten minutes were adopted in this study. In order to control observer bias pupils were observed without knowledge of their 'status' i.e. if they were the random or suspect pupils. Unfortunately the majority of the diagnosed pupils were actually known, thus the observations were not truly 'blind'.

### **Class Teacher Structured Interview** (see Appendix 9)

The structured interview was also devised by the group and aimed to elicit an objective and rounded picture of the ADHD and Suspect pupils. The pupils' strengths and weaknesses, curriculum skills, social interactions and learning style were examined. Initial questions did not make direct reference to the three areas of inattentiveness, impulsiveness and hyperactivity in the hope that teachers would describe the pupils in a more unbiased and objective way. Open and closed questions were used. Solution focused thinking influenced some of

the questions, particularly those looking at situations where the pupils' difficulties were reduced. The concept of **reframing** influenced some of the questions.

### **ACTeRS Teacher Rating Profile**

The ACTeRS profile requires the rater to grade each pupil from one to five on four scales representing attention, hyperactivity, social skills and oppositional behaviour. Internal validity is provided through the inclusion of both positive and negative statements. The instrument was standardized in 1990 on a sample of over 2000 American pupils.

Assessments were conducted in three stages. Initially all five pupils were observed in class using the COS. Structured interviews were then conducted with the teacher. Finally teacher ratings for all pupils were gathered via the ACTeRS profile.

The expectations of the study were that the behaviour profiles of non - ADHD and diagnosed ADHD pupils would differ, as would the profiles of 'suspected' pupils in each group. Variations were also anticipated between males and females and across age. It was thought likely that a continuum of the behaviours would be found across the three pupil groups, namely ADHD, Suspect and Random.

## **RESULTS**

### **Analysis of the Observation & Rating Scale Data**

All children were assessed using the COS and the ACTeRS rating scale. The ACTeRS data was grouped according to whether the optimal scores were high (attention & social skills) or low (hyperactivity & oppositional) and examined separately. The distributions were checked and found to be normal, indicated by a low score on the Kolmogorov-Smirnoff test.

### **Behaviour Profiles**

The behaviour profiles of the pupils were compared and analysed using the Kruskal – Wallis test. Statistically significant differences were found and were sustained when the random groups were collapsed into one. Group differences are illustrated in Charts 1 - 5.

**Key:**

1 = ADHD

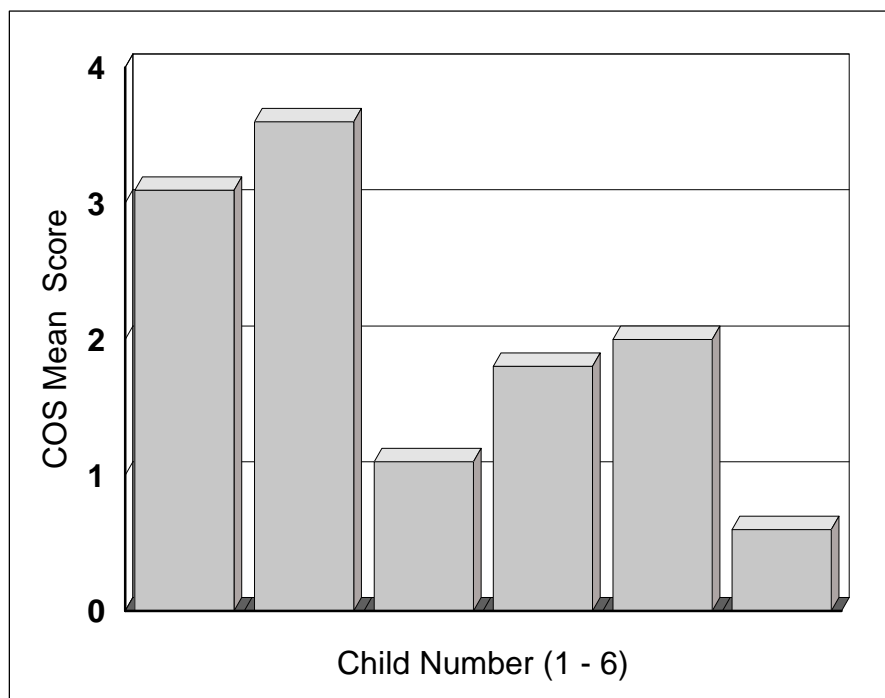
2 = Suspect

3 = Random Girl

4 = Random Boy

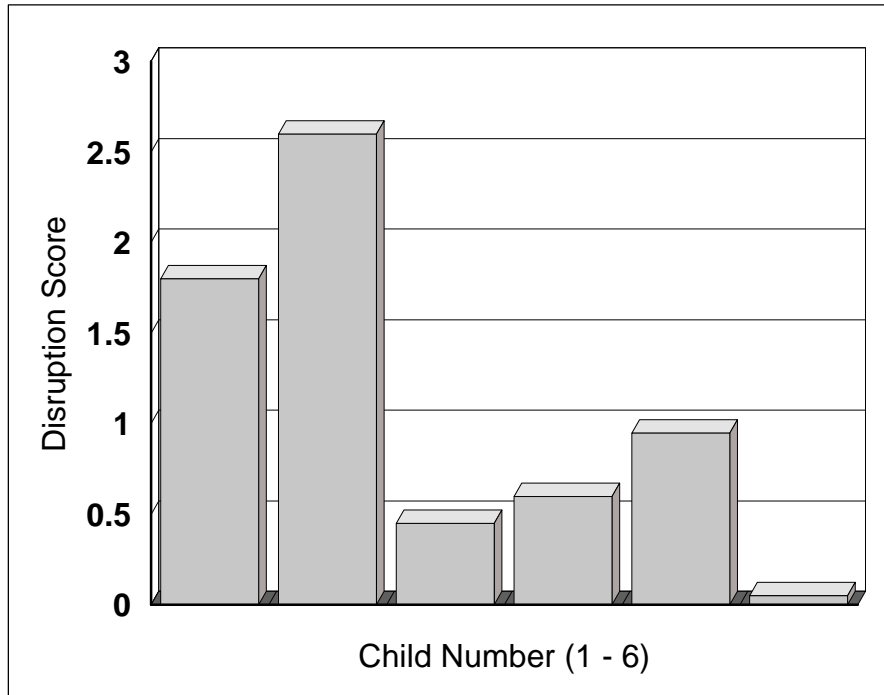
5 = Random Boy

6 = Random child where no Suspect



**Chart 1: Classroom Observation Scale results**

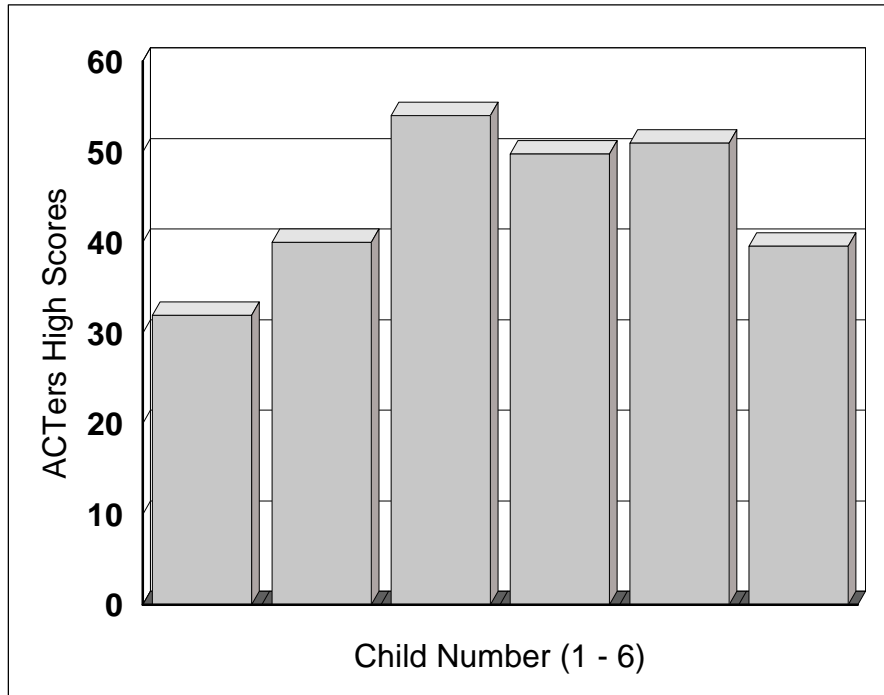
( COS Mean score H = 16.65,  $p < 0.001$  )



**Chart 2: Disruption category results**

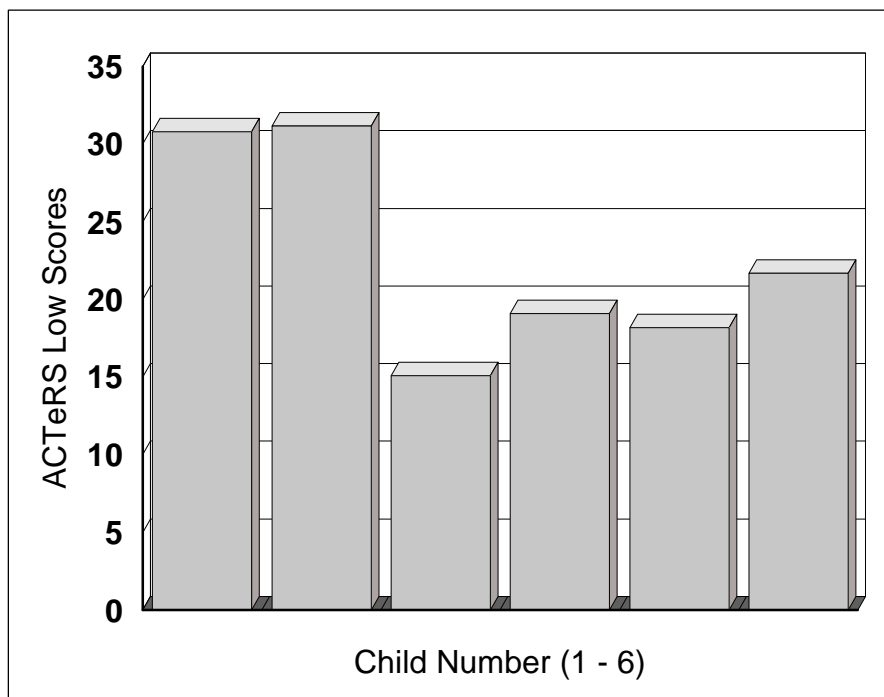
(H = 6.39, not significant )

Overall the Suspect group, followed by the ADHD group exhibited the most off task, talking out of turn, time out of seat and distracting behaviours as is demonstrated in Chart 1. When the category of disruption is singled out Suspect pupils continue to display the highest levels as Chart 2 clearly illustrates. The non significance of these results is possibly a reflection on the low overall incidence of disruptive behaviours. Analysis of the rating scale data indicates that teachers perceive ADHD pupils to have the poorest attention and social skills and random girls to have the best. ( See Chart 3 ) Similarly the girls were seen to display less hyperactive and oppositional behaviour whereas the ADHD pupils were seen to display the highest levels of these behaviours. (See Chart 4) When the category of overactivity was examined separately little difference was found between the activity levels of the ADHD and Suspect pupils as is shown in Chart 5. This could possibly be attributed to medication effects.



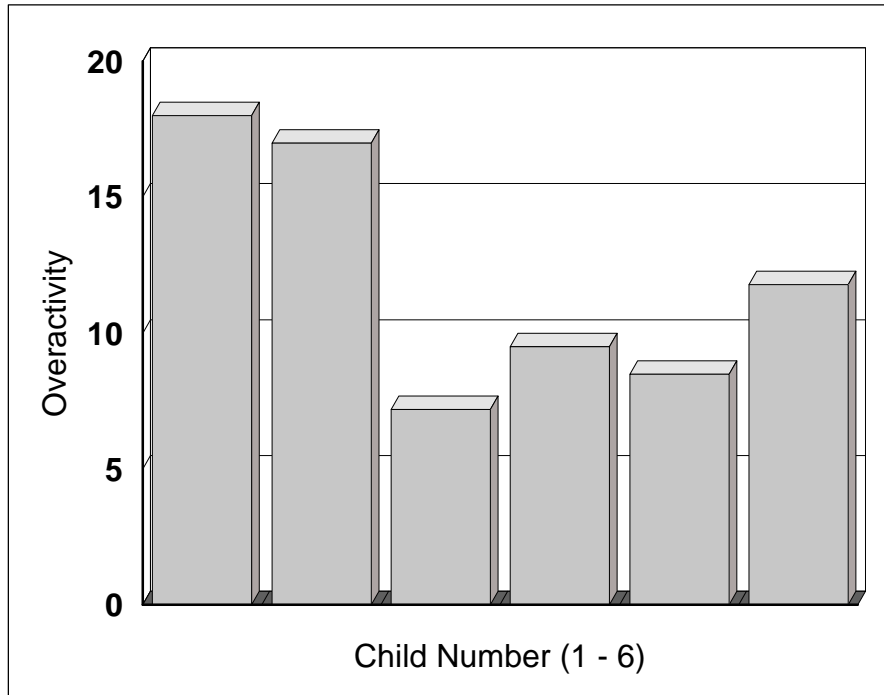
**Chart 3: ACTeRS High Score results (Attention, Social Skills)**

(ACTERS High score  $H= 45.39$ ,  $p<0.001$ )



**Chart 4: ACTeRS Low Score results (Hyperactivity, Oppositional)**

(ACTERS Low score  $H= 43.06$ ,  $p<0.001$ )



**Chart 5: Overactivity results**

(  $H = 46.73, p < 0.0001$  )

Analysis of the data indicates that all groups of pupils to some degree display the four behaviours measured by the COS. The ADHD and Suspect groups consistently present with the highest levels of negative behaviours. Although the profiles of these two groups appear to be alike, further analysis revealed low correlations between the groups ( COS mean,  $r = -0.06$  ). Analysis of the rating scale data produced a similar picture with the ADHD and Suspect groups scoring lowest on the positive traits (attention & social skills) and highest on the negative traits (hyperactivity & oppositional behaviour). Again these two groups appear alike yet analysis yields low correlations between them. (ACTERS high scores,  $r = -0.39$ ; ACTERS low scores,  $r = -0.46$  ) Though the ADHD and Suspect groups have more in common with each other than with any other group of pupils they are in fact dissimilar.

### Within Group Differences

ADHD Group	Mean	SD	Range
COS Mean	3.18	2.92	0.5 – 10.25
High ACTERS	33.57	8.92	19 – 51
Low ACTERS	31.48	9.97	12 - 50

**Table 4**

Suspect Group	Mean	SD	Range
COS Mean	3.72	2.82	0.0 – 8.75
High ACTERS	39.5	8.89	22 – 53
Low ACTERS	32.44	9.75	19 - 51

**Table 5**

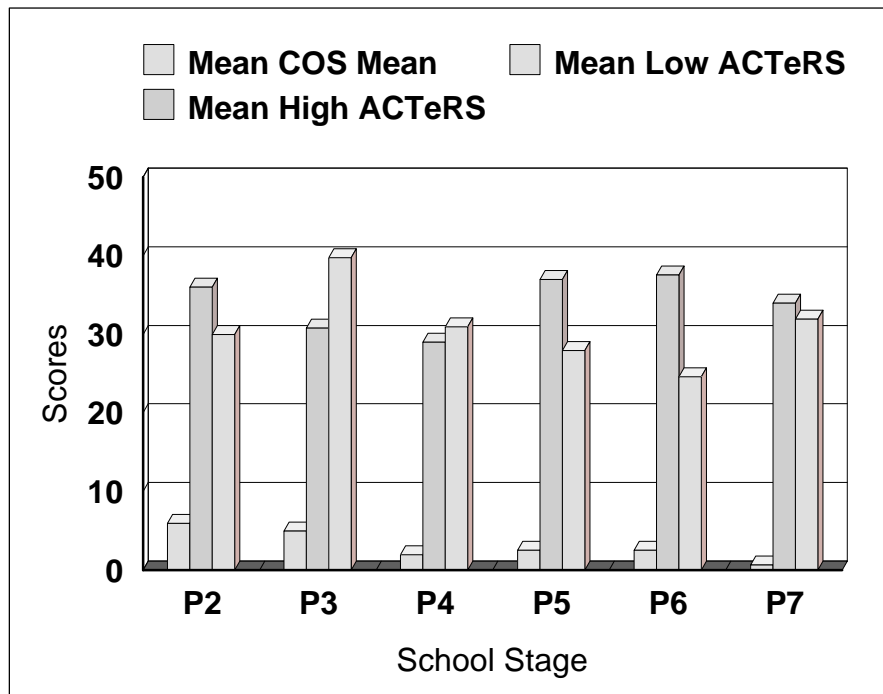
As Tables 4 and 5 illustrate there is variability within the ADHD and Suspect pupil groups. Within the ADHD group we can see that 68% of pupils were scoring  $\pm 1$  Standard Deviation from the mean and that the pupil scoring 10.25 is an extreme case. The variability found on the ACTeRS scale implies that there is not one typical profile for a pupil with ADHD. Observations suggest that this variability may be a response to classroom environment.

### Medication Effects

There were too many uncontrolled variables to include medication effects in the scope of this study; however teachers' reports indicated dramatic improvements in the post medication behaviour of some pupils.

### Age Differences

Analysis of the COS data for all groups of pupils indicated that there are statistically significant differences between age groups. P2 & P5 pupils exhibited more disruptive behaviours than the other age groups whilst P6 & P7 pupils on the whole displayed the most appropriate behaviours. No age differences were found for activity levels. ( Disruption  $H=11.50$ ,  $p<0.05$  ; COS mean  $H=14.82$ ,  $p<0.01$  ) Analysis of the ACTeRS data indicates that teachers do not perceive behavioural changes to be a function of age. Looking more closely at age differences within the ADHD group, better behaviour was observed in the older pupils. (See Chart 6) The literature ( Hynd & Hooper, 1995 ) indicates a maturational effect in children with ADHD; this would appear to be borne out by our data.



**Chart 6 : Scores in COS and ACTeRS at different Stages**

### **Gender Differences**

In general females exhibit markedly more desirable behaviour across all areas. Due to the low numbers of female ADHD pupils, ADHD and Suspect females were grouped together. A comparison of the two groups (ADHD and Suspect females and ADHD and Suspect males) indicated that females exhibit fewer observable negative behaviours and are rated higher in the areas of attention and social skills than their male peers. Surprisingly they

were also rated as being more hyperactive and oppositional, though these differences are minimal.

### **Analysis of the Interview Data**

Content analysis was used to examine the qualitative data gathered via structured interviews. Much of the data, though useful for the planning of intervention for individuals, was not particularly helpful for making comparisons between the groups of pupils. Therefore a few areas were selected to be analysed.

Table 6 illustrates the percentage of ADHD and Suspect pupils perceived to have the following difficulties.

<b>Difficulties</b>	<b>% ADHD Pupils</b>	<b>% Suspect Pupils</b>
Concentrating on task	90	62
Completing tasks	52	62
Sitting in seat	48	52
Following instructions	43	43
Following class routines	38	14
Working independently	76	43
Fidgeting	67	48
Excessive/ inappropriate talking	43	38
Disrupting peers	43	52

**Table 6: Evidence of classroom difficulties among ADHD and Suspect Pupils**

The top five difficulties exhibited by ADHD pupils in descending order were: sustaining concentration, working independently, fidgeting, completion of tasks and remaining in seat. In comparison the suspect pupils' main difficulties, again in descending order, were

sustaining concentration, completion of tasks, remaining in seat, disrupting peers and fidgeting. In three areas there were large differences in the percentage of ADHD pupils said to have the difficulties compared to Suspect pupils: 90% compared to 62% for sustaining concentration; 76% compared to 43% for independent working and 67% compared to 48% with regard to restless behaviour.

Both groups of pupils were perceived to perform best on short oral tasks, attempted first thing in the morning. The length of the task in hand appeared to be the prime consideration for both groups. In contrast however the time of day was more vital to the ADHD pupils' performance whilst the mode of the task was more pertinent to the Suspect pupils.

With regard to social interactions the outcomes appeared to be polarised. More ADHD pupils were described as unpopular, lacking in confidence, having low esteem, appearing isolated and being responders rather than initiators whilst more Suspect pupils were deemed to exhibit the opposing positive social traits. Such perceived differences however were not statistically significant ( $\chi^2 = 23.22$  ;  $df = 31$ ). It may be that peers would have described the pupils differently from their teachers.

Many strategies to support the pupils were reported including reward systems, use of peers or extra adult support, refocusing the pupil and allowing extra time for tasks. More interventions were mentioned for ADHD pupils compared to the Suspect pupils. Though the effectiveness of any of the strategies was said to be variable dependent on the mood and motivation of the child that day, extra adult support and reward systems were considered to be the most beneficial.

### **Methodological Problems**

The main difficulty for those carrying out the study related to time. The time required for assessments was under - estimated. A second difficulty relates to the COS. The scoring a pupil receives is dependent on the task they are assumed to be attending to. This raises questions in regard to the representativeness of any single observation and also makes comparisons between pupils flawed unless they are all engaged in similar types of

activities. Further problems arise with the practical translation of ‘talking out of turn’ and ‘non-contact with chair’. The former is difficult to ascertain when outwith earshot, whilst the latter is complicated when there is no explicit expectation that pupils should remain in their seats. It is also difficult to rate when pupils are out of their seat yet engaging in behaviour that may be deemed appropriate, e.g. queuing to see the teacher. The practicalities of observing five pupils on four behaviours every thirty seconds proved difficult. However this schedule was purely for this study and the COS could easily be amended to allow observation of fewer children over varying time intervals.

Any conclusions reached from this research must be tentative in nature due to the small sample size and the fact that comparisons between pupils observed behaviours may be unrepresentative as subjects were only matched for gender, age and class context. Possible individual differences of the subjects were not accounted for, nor were extraneous contextual factors controlled for. The possible ‘observer’ effect must also be considered when interpreting the data.

## **CONCLUSIONS**

The first aim of the study was to evaluate whether the assessment materials were useful for differentiating pupils with ADHD from their peers. It can be concluded that the materials were able to discriminate between ADHD pupils and their random peers. Although at a statistical level they were also able to discriminate between ADHD pupils and peers suspected of having ADHD, they were not able to do so at a functional level. It is possible that many of the Suspect pupils do in fact have ADHD but are not diagnosed. If this is the case then differences between the two groups of pupils would not be expected. As this variable could not be controlled for, firm conclusions on this particular point can not be drawn. Another possible reason why such discrimination was so difficult was the degree of variability within the groups which led to profile overlaps.

The second aim of the study was to evaluate whether the assessment materials could inform the planning of intervention. There is no doubt that the assessment materials do provide clear indications of a pupil's performance based on a variety of information sources. They also support teachers in focusing on the particular difficulties and encourage reflection on what steps have been taken to support the pupil's learning. In addition they prompt discussion of pupils' positive traits. This is a useful starting point for planning intervention. Modification to the materials however is desirable. For example, the structured interview could be made more time efficient. More effective use of the COS could be made by clarifying the category definitions, by observing pupils engaged in specified activities and by observing a child more than once. The assessment itself needs to be carried out over a period of time and should be regarded as a *process* rather than a one off procedure. Supplementing the assessment information with data gathered from both the pupils themselves and the parents would further provide a more cohesive and reliable picture of the pupil's functioning. It therefore is suggested that the materials have multiple uses: functional assessment of pupils' difficulties, informing the planning of interventions, measuring the effectiveness of intervention using a baseline approach, contributing to the diagnostic process.

The final aim of the project was to gather and compare behaviour profiles of ADHD pupils and their peers. Analysis in certain areas could not be conducted due to the small sample size. The findings of the study confirm that the behaviour profiles of pupils diagnosed with ADHD differ from the profiles of random peers. The profiles of the ADHD and Suspect pupils on the surface appear to be very similar, both displaying higher levels of the undesirable behaviours. However when statistically analysed the Suspect pupils' profile is more negative than those diagnosed. This may be a function of the medication taken by those diagnosed. Teacher perceptions of diagnosed pupils are more negative than they are for Suspect pupils. This raises the question of whether the negative effects of labelling are outweighing the possible benefits of medication.

Within group differences, age and gender differences were found. There was wide variability within both the ADHD and Suspect groups. Females presented more desirable traits and older pupils exhibited more appropriate behaviours even though teachers did not perceive any age differences. A continuum of the behaviours across the groups was found, implying that the behaviours exhibited by pupils with ADHD are not in themselves different from those displayed by their peers, just that they present at a more serious level.

In answer to the question raised in the chapter title, it can be concluded that children with ADHD are not really *that* different from their peers in terms of the *types* of behaviours they display; however their behaviours do differ in *severity*. Comparison of ADHD children with a representative sample of their peers has enabled us to establish this.

## **RECOMMENDATIONS**

The final recommendations of the primary school subgroup are:

- that the assessment materials are developed further.
- that further research be undertaken to explore the effects of medication.
- that further research be undertaken to explore gender differences.
- that educational psychologists involved in the assessment of children who may have ADHD should assist teachers in reframing their perception of such pupils within the class environment.

## **RUADHD2? ADOLESCENTS HAVE THEIR SAY.**

*Report of the Secondary School subgroup : William Allison, Mhairi Gibbons and Janice McClements*

There have been relatively few studies of adolescents with ADHD in comparison to other age groups. Fischer et al (1990) identified a continuing problem with academic underachievement, inattention and impulsivity from early through to late teenage years. Manuzza et al (1991) used interview schedules, psychometric testing and rating scales as a means to diagnosis of ADHD in adolescents. Jones (1994) cites Weiss and Hechtman's 1986 longitudinal study of children diagnosed with ADHD into adulthood, many of whom reported that they had disliked taking medication. The reasons and presumed benefits of the medication were rarely explained to them; nor had they been given much information about how it worked. More recently Hearne (1997) carried out a small scale study in the UK into children's perceptions of their condition. It similarly concluded that both children and their parents had incomplete understanding and knowledge of the condition.

In 1991 the United Kingdom signed the UN Convention on the Rights of the Child and in doing so committed the nation to ensuring that its laws, policy and practice fell into line with its provisions. The Children (Scotland) Act 1995 takes from the Convention a key feature that regard should be given to children's views, subject to age and maturity. Children aged over 12 years are presumed to have sufficient age and maturity and as such they should be afforded every opportunity to participate in decisions affecting them.

**We were interested to learn of the extent to which young people identified in our study have been informed about their condition, their views and feelings about this, and how their situation reflected the spirit of the Act. We also aimed to learn about the impact of their condition on their educational progress, and any other issues which might inform professional practise.**

## **METHOD**

In the study, diagnosed secondary aged pupils were identified from the initial 'School Survey Form' which were completed by psychologists and their respective link persons in schools including those in Renfrewshire, East Ayrshire, East Renfrewshire, Midlothian and Glasgow NW. The psychologist, or the school if the pupil was unknown to psychological services, was then contacted for guidance as to the appropriateness of approaching a particular pupil and his or her parents for permission to interview.

Following an approach via letter or telephone agreement to proceed was reached in twenty two cases, five each in Renfrewshire and East Ayrshire and twelve in Midlothian. There were twenty one males and one female ranging in age from 12 years to 16 years with a mean age of 13.5 years.

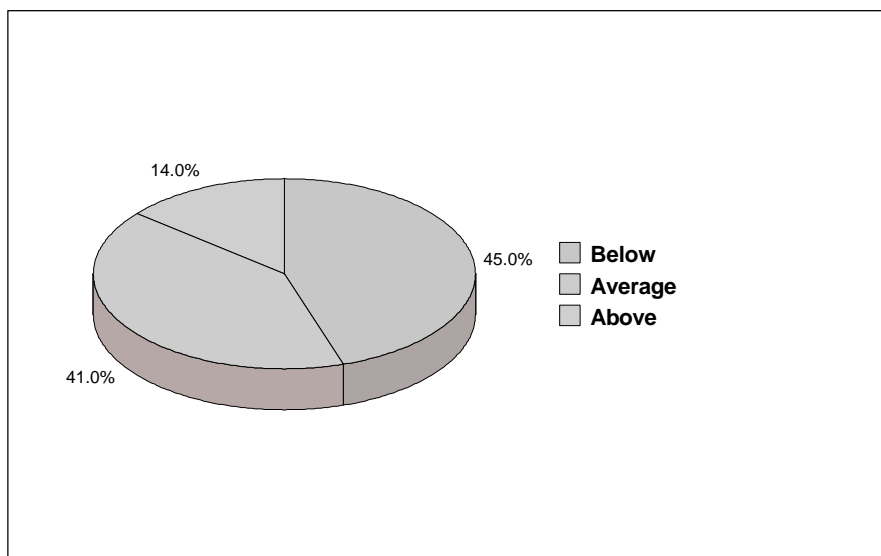
Each young person was interviewed using a semi-structured interview format and data obtained on pupils views about medication, and solutions or general strategies which they believed to be helpful to themselves and possibly others with ADHD. Participants then completed a Conners-Wells Self Report Scale S (CASS). The CASS norms were standardised on a sizeable North American sample, and it is widely used internationally as a research instrument and in clinical practice to assist in the initial identification of ADHD in children and adolescents. It can also be used for measuring intervention changes, monitoring change over time and monitoring the effects of medication. Each pupil marked their own sheet but weak readers were supported by having the questions read out to them. Basic background information was collated from the schools' contact person on *current attainments, discipline histories and exclusions*. These data will be reported first.

## RESULTS

### 1. Teacher Information

#### *Current Attainments*

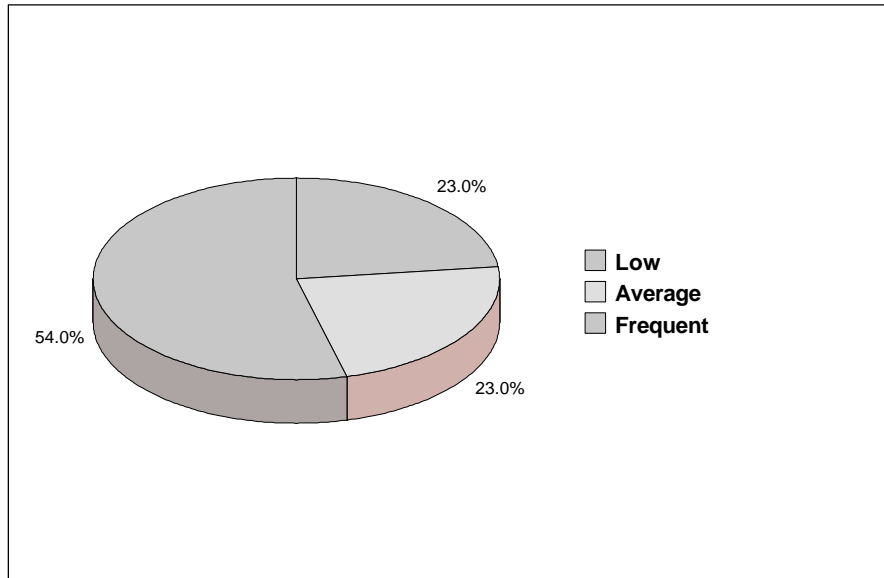
The link teachers were asked to rate each pupils' attainments as either, *below average*, *average* or *above average*. Chart 1 reassuringly shows that 41% were in the *average* range and 14% were said to be *above average*. Nonetheless the attainments of a sizable percentage, (45%) were reported as relatively poor with many of them receiving learning support.



**Chart 1: school attainments as described by teachers**

#### *Discipline Histories*

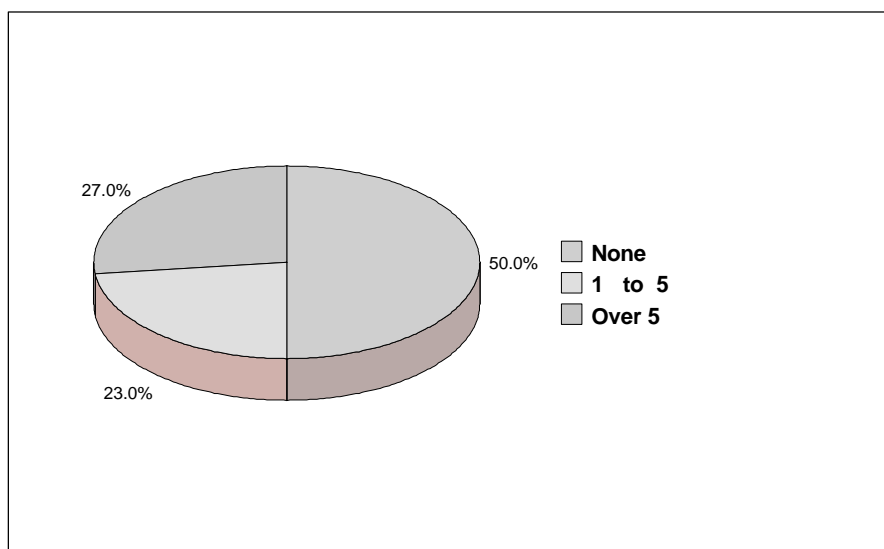
Teachers and pupils provided general indicators of discipline problems by rating them either *none or low*, *no more than average*, or *frequent problems*. Chart 2 illustrates that more than half, (54%) were rated as frequently problematic. A variety of disruptive behaviours were mentioned including angry outbursts in class, peer conflict, talking out of turn and failing to follow instructions.



**Chart 2: incidence of discipline problems as perceived by teachers**

### *Exclusions*

Chart 3 shows that half of the survey had an exclusion history with 27% excluded more than five times. Those who had experienced exclusions were fairly open in talking about their difficulties; several mentioned that they were excluded more frequently in primary than in secondary school.



**Chart 3: exclusion history as reported by teachers**

## **2. SEMI STRUCTURED INTERVIEW**

A series of questions were addressed to all participants, with follow-up prompts where appropriate. The results are summarised below.

### ***When Did You Know You Had ADHD?***

41% reported being told in primary school, many of them in late primary. 32% learned of it in secondary. The remaining 32% were unsure or had not been told at all, and none were told pre-school. The extent of their understanding was variable and pupils described their condition in various ways. *“A deficiency in the brain for which I need medication”*. *“It was another thing to add to my list of problems... like nose bleeds... Asthma”*. *“It is serious and affects on your work”*. *“My mum explained but I wasn’t listening too much at the time. Something that makes you hyper and just going on and on and don’t stop”*.

### ***Who Was it That Told You?***

74% of pupils were told by their Psychiatrist and/or parents, 4% GP, 9% had no explanation at all. 9% learned following Media coverage of the issue and discussion within the home. The main source of information came directly from the Psychiatrist to the child through the parents. Their understanding developed over time and often incidentally. As one pupil put it, *“I learned about it when I got your (psychologist) letter last week ...then my mum and dad spoke to me about it”*.

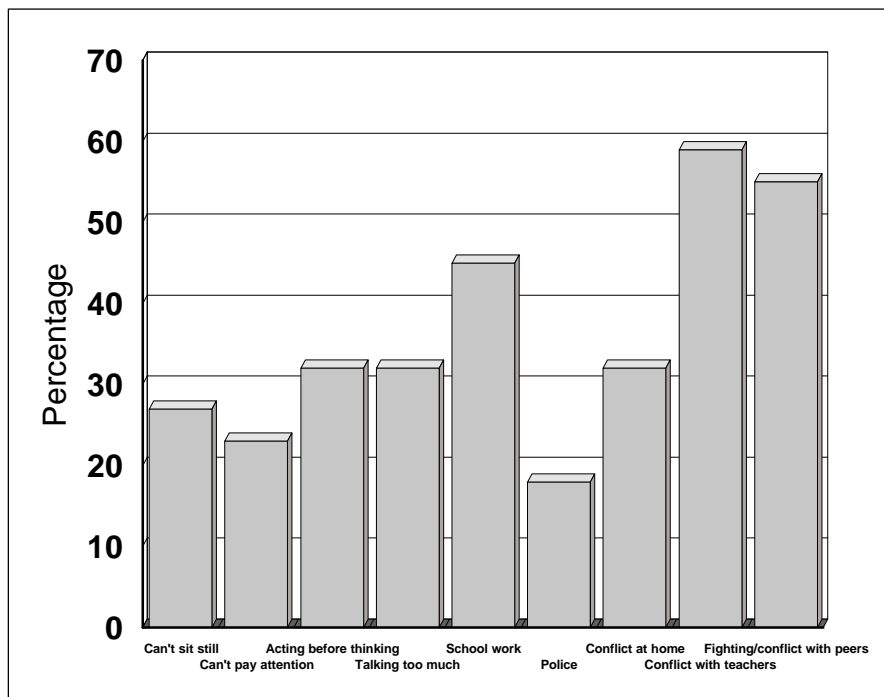
### ***How Did You Feel?***

37% of pupils reported not having many feelings or felt no different when they were told. 23% reported feelings of confusion or mixed feelings, 18% were apprehensive or upset. Only 18% were relieved or glad. The label did not lead to significant relief or reassurance and caused apprehension in cases. Some said, *“At first I didn’t understand, then I was*

relieved ... same as when I found out I was dyslexic”. “Just the same (for me) but my mum felt relieved”.

### ***What Difficulties Have you Had?***

The difficulties reported were clustered into three categories including *Conflict with Others*, *Difficulties in School*, and *Attention/Control difficulties*. The greatest area of difficulty was found in the *Conflict with Others* category in the form of Conflict with Teachers (59%) and Conflict with Peers (55%). Difficulties with School Work was also rated highly at 45%. Notably conflict with teachers was rated more highly by participants than conflict at home.



**Chart 4: frequency of difficulties described by pupils**

***Do you take Ritalin?***

77% responded Yes and 22% No, however the majority of the ‘currently No’ responses (80%) had previously taken it. All pupils on medication were taking Ritalin although alternatives such as Dexedrine had been prescribed previously.

***How long have you been taking this?***

The pupils had been taking Ritalin for different lengths of time with 22% for less than one year, 45% for less than two years, 13% for less than five years and 9% for more than five but less than ten years.

***How does Ritalin affect you?***

45% of pupils felt that it lowered activity, 31% felt that it improved their ability to work in class, 31% found an improvement in concentration and 50% considered that Ritalin lessened impulsivity. 18% complained of experiencing side effects, for example blinking, twitching, and/or sleep difficulties. 9% complained of sore heads which may or may not have been related to the Ritalin, but which they perceived as such.

Some pupils received their medication in school, for example in the Learning Support base. Others would take medication before going to and after coming home from school. Some pupils were sensitive about others finding out: one boy complained that he had been called a ‘druggy’ by his brother’s friends. Some pupils on the other hand knew of others in the same school who had ADHD; this was a comfort and taking the medication was almost a shared activity. On the other hand several pupils complained that taking medication on a daily basis was a nuisance in that it restricted their freedom if for example they wished to go away for the day.

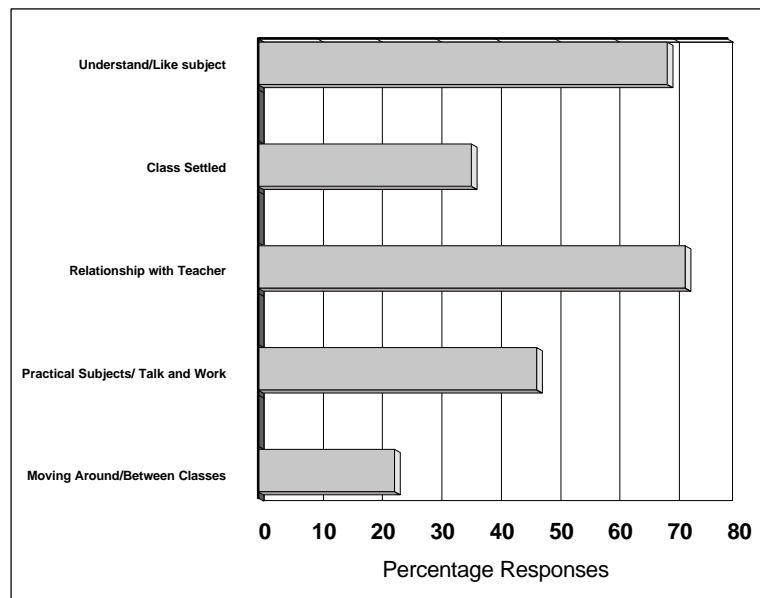
Some pupil comments about Ritalin included the following, ‘*If I forget to take Ritalin I go into violent (mood) swings ...get very angered and talk back*’. Another pupil said, ‘*without tablets I cannae (can’t) work right, I just sit and don’t pay any attention*’. Another, “*It makes me feel paranoid...*”

***Have Things Become Easier?***

Pupils were asked to rate their current situation on a scale of 1-10, with 10 being the most favourable. 37% stated that things were better. 68% responded favourably with a score of over 5, 22% rated themselves at 5 and 9% rated below 5.

***Solutions?***

The pupils were able to describe a range of things which they felt either solved difficulties or at least minimised them for themselves and others in school. It was possible to cluster their statements under five headings as illustrated in Chart 5.



**Chart 5: pupils’ perceptions of things which helped in secondary school**

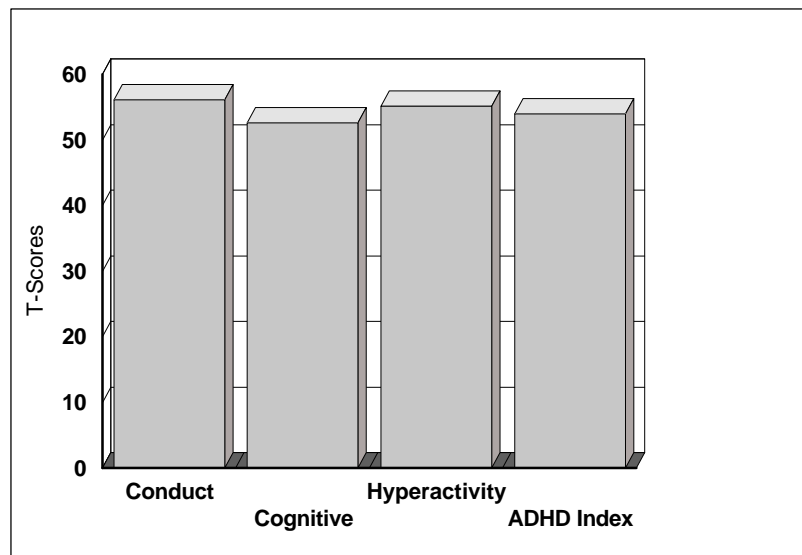
Most pupils in the survey (72%) rated a positive relationship with certain teachers in the school as a major asset. Indeed they freely volunteered anecdotes about certain staff who were said to be “relaxed”, “friendly” and engaged them in humour. They valued staff who in their terms appeared to be willing to make allowances for shortcomings. One pupil for example said, “*If I forget my pencil Mr Smith just gives me one...he doesn't make a deal of it*”. Being able to *understand* and *liking* a given subject (69%) are highly rated. Practical subjects were liked or rated highly by 47% of pupils for the following reasons: Not surprisingly many reported that they, ‘*like playing with tools and making things*’. In most workshop or lab settings it is permissible to talk whilst working and they enjoyed this freedom. This closely links with 23% who like the break they receive when *moving between classes*. Some commented that they were functioning better in secondary school as compared with their recollections of primary, and attributed the above factors as reasons for the difference.

More than a third (36%) identified a settled class with peers calmly working diligently as a help to them. “when everybody is working it makes me just want to get on with it as well... I don't want to look different and have them talk about me”. Conversely they recognise that an agitated or excited class can be equally and unavoidably infectious.

### **3. THE CONNERS-WELLS SELF-REPORT**

The CASS Questionnaire allows the calculation of four indices including *Conduct*, *Cognitive*, *Hyperactivity* problems and an *ADHD Index*. For the whole group the only scale which suggested marginal borderline difficulties were the Conduct Scale (T = 56.1) and Hyperactivity (T = 55.2). The Cognitive Score fell within the average range (T = 52.6) as did the ADHD Index (T = 54). From this it can be stated that the group as a whole did **not**

rate themselves above the normally accepted threshold (T = 65) indicative of possible clinically significant problems. These results are illustrated in Chart 6 below.



**Chart 6: results of the Conners-Wells Self Report**

## **DISCUSSION**

### **Collecting data**

It was not possible or appropriate to approach all of the adolescents identified in the initial survey for interview. The reasons varied and included family/domestic or other crises in some cases related to the condition. It might be claimed that the subjects willing or able for such interviews were already coping better than some others with their condition.

### **Usefulness of the Conners-Wells Rating Scale.**

The CASS was simple to administer although it was clear that its use alone would not have currently discriminated the sample from the normal undiagnosed population. More useful information appeared to be collected from the structured questionnaire in terms of the nature of their problems as well as the means of planning interventions. This

conclusion however may need to be further scrutinised through individual case research which was not investigated in the current project.

### **The participants**

The sample consisted of twenty one boys and one girl. This reflects the higher incidence of ADHD amongst males and may have affected the types of problems that were reported. It may also have affected the ability of the pupils to report verbally and particularly on their feelings. In our opinion the pupils tended to be reasonably fair and realistic in reporting their problems; whilst many made positive comments about medication, there was also a measure of uncertainty or ambivalence as to whether it helped them to the extent that teachers and parents may perceive. They agreed that medication was only part of the picture and that other factors were important in helping them. They also accepted a need to take responsibility for improving their own situation.

As with any small scale study there was much that was left unexplored. However, one thing was clear: despite observing a number of trends and similarities in the way youngsters with ADHD view their situation there were also a large number of differences. Pupils with ADHD are not a homogeneous group. In adolescence as well as in the primary aged sample individual differences are as many as in the population at large.

### **Overall progress**

The study confirms that in general the group were experiencing more problems both in relationships and in school life than the norm, as might be expected. The greater problems being reported in the school setting could be said to be indicative of the difficulties they had in accommodating to the structural demands of book and classroom based learning.

Their higher satisfaction in practical classes, where movement and or talking is allowed might suggest that there is merit in considering adjustments that might be made in primary schools as reported in Appendix 2.

The importance of the teacher-pupil relationship as a means of limiting conflict was very much recognised and valued; it was felt that teachers can do a lot to ease or head off problems before they occur in school. Small adjustments in the teacher's approach and attitude to the child's weaknesses can make a crucial difference. The pupil cited earlier who had problems organising himself to carry a pencil is a case in point. A settled learning environment was also highlighted and it may be worth considering the placement of such pupils in more settled classes, perhaps with a better balance of males and females.

### **Knowledge/feelings about the diagnosis**

The reassurance that many adults may feel when provided by a diagnosis was not necessarily shared by the pupils but instead tended to leave them anxious or confused. These feelings we suspect might have a lot to do with the manner in which information was supplied to pupils, whether through the psychiatrist and/or parents, and the appropriateness of this information to the age and understanding of the child or young person.

There is perhaps a need for this information to be repeated at intervals to refresh and enhance understanding of their specific problems, and practical help and reassurance that ways forward can be found. The need for contact with other pupils in the same situation, and the requirement that their condition was not overly highlighted or widely known was also an important factor. Education of the general peer population about the existence of this condition may be worth following up within a Personal and Social Education Programme.

## **A FINAL WORD**

*Janice McClements*

One of the PDP groups this year has attempted to address in some measure the vast and very complicated issue of Attention Deficit Hyperactivity Disorder - a recently highlighted diagnostic category which is simultaneously considered to be a medical disorder involving brain biochemistry, a syndrome describing a number of frequently co-occurring behaviours and part of the social, emotional and behavioural difficulties continuum. It is a syndrome which has been variously described under different labels and its characteristics have been evident in individuals throughout history. ADHD currently arouses varying amounts of interest from parents, professionals and of course those with the conditions themselves, either young or old.

For the benefit of our colleagues we have tried to offer a comprehensive introduction to the issue. We attempted to ascertain the extent to which ADHD is prevalent in our own education authorities. We looked at assessment and interventions and also tried to understand the views of the families affected by the occurrence of ADHD, both the parents of diagnosed youngsters and the young people themselves.

We were struck by the fact that the incidence figures in our own authorities were relatively low, the maximum in any authority surveyed being 0.27% as compared to a predicted national average of 0.5% and 1% . We noted but were unable to objectively account for this fact or the reason for some areas having higher incidences than others. This would require further investigation.

In the course of our study we became aware of the emotion surrounding ADHD as many parents and young people shared their thoughts and experiences. It was evident that families appreciated the opportunity to talk and this reinforced the necessity for

psychologists to take time to listen to, and use what parents and young people are telling us, and in turn to offer understandable explanations.

There had been much frustration experienced by families in the course of seeking help and having the problem diagnosed, sometimes because they were not receiving the diagnosis of which they were so certain. The group had mixed fortunes in obtaining discussions with members of the medical profession and in some instances were very disappointed at the lack of opportunity to meet with health board colleagues. However some discussions with psychiatrists were positive and informative and there appeared to be a general wish to improve links and increase joint working between health boards and education authorities. Discussion on the above continues and our findings highlighted the need for further co-operation and the development of specific routes to diagnosis and support, taking into account local authority Codes of Practice, particularly guidelines on Identification and Assessment of Special Educational Need. Hampshire County Council's (1996) document seemed an example to consider.

In any area of research and professional development there will inevitably be areas left uncovered. In some cases exploring certain pathways, while interesting in themselves do not yield the information anticipated or not fit within the parameters of the project. Exploration of the areas of co-morbidity is one such example, as highlighted in the Introduction.

In our Introduction we acknowledge the fact that children with ADHD tend to have other emotional, behavioural and educational difficulties; for example there is an established link between ADHD and literacy difficulties, often including handwriting problems. We know that poor motor control can be linked to disinhibition. Some clinicians would emphasise the fact that behaviours exhibited in children who are dyspraxic and those who have ADHD can be similar for different reasons; however Sally Goddard in her book '*A Teacher's Window Into the Child's Mind*' points out that Hyperactivity and Attention

Deficit may be two signs of immaturity in vestibular functioning. Although not included in the main body of our study it has been observed that some children in the Lothians presenting with motor planning difficulties and also showing signs of impulsiveness and hyperactivity have been able to benefit in some measure from therapeutic intervention in a group setting where activities give possibilities for integrating motion and sensation. Further exploration and evaluation of such techniques could be worthwhile.

Another exciting possible avenue to explore is that of Video Home Training (Jansen and Weis 1997) which is reported to have had a positive effect on the perceived behaviour of children and the feelings of parenting stress in the parents of hyperactive children. This sits nicely with the current initiative through SPIN training in psychological services throughout Scotland.

As there is already current involvement of psychologists in a variety of initiatives which look to improve support for children and young people with both learning and behavioural difficulties, including those diagnosed as having ADHD, it might seem that there is already a head start in terms of meeting the needs of such youngsters. However we remain aware that life for such pupils can be very difficult and the literature supports the fact that the outlook can often be poor. At this stage there is a need for continual reassessment of what exactly ADHD is, what its effects are likely to be, and what the consequences are for psychological and educational intervention.

Hopefully this project as it stands informs colleagues to an extent in terms of diagnosis, assessment of need, advice which can be given to schools, the importance of listening to children and their families, sharing information with colleagues and, in general, the benefits of a solution focussed approach to intervention.

## BIBLIOGRAPHY

ANASTOPOULOS A, BARKLEY, R AND SHELTON J (1995) - The History and Diagnosis of Attention Disorder. In Cooper P and Ideus K (eds) Attention Deficit/Hyperactivity Disorder: Educational, Medical and Cultural Issues pp 4 - 5. Association of Workers for Children with Emotional and Behavioural Difficulties.

BRITISH PSYCHOLOGICAL SOCIETY (1997) Attention Deficit Hyperactivity Disorder: A Psychological Response to an Evolving Concept. Leicester: The British Psychological Society.

CONNOR M et al (Eds) (1996) Attention Deficit Disorder: Guidelines for Good Practice. Surrey: Surrey County Council.

COOPER P AND IDEUS K (1996) Attention Deficit (Hyperactivity Disorder: A Practical Guide For Teachers). London: David Fulton Publishers.

COPELAND E D (1987) Copeland Symptom Checklist For Attention Hinshaw, SP (1994) - Initial sociometric Deficit Disorders Georgia: Southeastern Psychological Institute.

ERDHART D et al: impressions of attention deficit hyperactivity disorder and comparison boys: Predictions from social behaviours and from nonbehavioural variables. Journal of Consulting and Clinical Psychology, 62, pp 833-842.

FISCHER et al (1990) The adolescent outcome of hyperactive children diagnosed by research criteria: Academic, attentional and neuropsychological status. Journal of Consulting and Clinical Psychology, 58, 580-588.

FOWLER M (1993) Maybe You Know My Kid: A Parents Guide To Identifying, Understanding And Helping Your Child With Attention Deficit Hyperactivity Disorder. New York: A Birch Lane Press Book: Carol Publishing Group.

GODDARD S (1996) A Teacher's Window Into A Child's Mind. Oregon: Fern Ridge Press

GOLDSTEIN S (1996) TOAD Observation Schedule

GOLDSTEIN S (1995) Understanding and Managing Children's Classroom Behaviour. New York: Wiley

GOLDSTEIN S & GOLDSTEIN M (1992) Hyperactivity - Why Won't My child Pay Attention? New York: John Wiley & Sons Inc

GREEN C (1995) Understanding Attention Deficit Disorder. London: Vermilion.

HAMPSHIRE COUNTY COUNCIL (1996) Attention Deficit (Hyperactivity) Disorder: Information and Guidelines For Schools. Hampshire.

HEARNE R (1997) How do children with ADHD perceive their condition? The British Psychological Society, Division of Educational and Child Psychology Newsletter, No 82, 14-19. Leicester.

HELLIER C (1996) Accept the Gift Horse but do look it in the Mouth. Educational Psychology in Scotland, SDEP No 4.

HYND G W AND HOOPER S R (1995) Neurological Basis of Childhood Psychopathology. London: Sage Publications.

JANSEN R J A H & WEIS P M A (1997) The Effects of Video Home Training in Families With A Hyperactive Child. Paper presented at Association of Child Psychology And Psychiatry Conference, Edinburgh.

JONES CB (1994) Attention Deficit Disorder: Strategies for School Age Children. Arizona: Communication Skill Builders.

LAHEY BB, APPLGATE B, MCBURNETT K, BIEDERMAN J et al (1994) - DSM-IV field trials for attention deficit hyperactivity disorder in children and adolescents. In American Journal of Psychiatry, 151, pp 1673-1685.

LANDGREN M, PETTERSON R, KJELLMAN B, AND GILLBERG C (1996) - ADHD, DAMP and other Neurodevelopmental/Psychiatric Disorders in 6 year old Children: Epidemiology and Co-Morbidity. In Developmental Medicine and Child Neurology, 38, pp 891-906.

LUFU D AND PARISH-PLASS J (1995) Personality assessment of children with attention deficit hyperactivity disorder. Journal of Clinical Psychology, 51, pp 94-99.

MANNUZZA et al (1991) Hyperactive boys almost grown up. Archives of General Psychiatry 48, 77-83.

NORRIE K MCK (1995) Children (Scotland) Act 1995: Greens Annotated Acts. Reading: W Green and Son Ltd, The Headway Press.

PARKER H C (1994) The ADD Hyperactivity Workbook For Parents, Teachers & Kids. USA

PARKER H C (1995) The ADD Hyperactivity Handbook For Schools. USA: Impact Publications Inc.

REASON R & SHARP S (Eds) (1997) ADHD: Perspectives From Educational Psychology. Educational and Child Psychology (14)1.

RICHARDS J (1995) - ADHD, ADD and Dyslexia. In Cooper, P and Ideus, K (eds) - Attention Deficit/Hyperactivity Disorder: Educational, Medical and Cultural Issues pp 63-73. Association of Workers for Children with Emotional and Behavioural Difficulties.

ROBB J & LETTS M (1997) Creating Kids Who Can Concentrate. Great Britain: Hodder and Stoughton.

ROTH EE (1995) A Clinical and Cognitive Approach To Attention Deficits In: Cooper P and Ideus K (Eds) ADHD : Educational, Medical and Cultural Issues. The Association of Workers For Children With Emotional & Behavioural Difficulties

SLOANE MA, ASSADI L AND LINN L (1989) Educational Strategies for Students with Attention Deficit Disorder. Michigan: Minerva Press Inc.

TAYLOR E (1995) Hyperactivity As a Special Educational Need. In: Cooper P and Ideus K (Eds) ADHD: Educational Medical and Cultural Issues. : The Association of Workers For Children With Emotional & Behavioural Difficulties.

ULLMANN RK, SLEATOR EK AND SPRAGUE RL (1991) ACTERS Profile. Illinois: Metritech Inc.

WHEELER J AND CARLSON CL (1994) - The social functioning of children with ADD with hyperactivity and ADD without hyperactivity: A comparison of their peer relations and social deficits. Journal of Emotional and Behavioural Disorders, 2, pp 2-12.

WODRICH DL (1994) Attention Deficit Hyperactivity Disorder. Baltimore: Paul H Brookes Publishing Company.

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## **APPENDIX 1**

### **Summary of interviews with consultant psychiatrists**

Since the main criterion for the identification of pupils with AD/HD in the project's survey across Scotland was a medical diagnosis - it was important to know how the key personnel in the medical field were operating. Educational Psychologists have a broad interface with many different professionals including Paediatricians and Psychiatrists. Two interviews are reported on below. One with Dr Les Scarth was set up intentionally during the course of the project's survey period. The second with Dr Beverley Norton took place as part of some routine case-work. Dr Scarth had been working as a locum Consultant Psychiatrist part-time in the Department of Child and Family Psychiatry at St John's Hospital, Livingston, West Lothian for the previous year during which time the known incidence of children diagnosed with AD/HD increased significantly. Also, some children were known to have moved in from other areas with the diagnosis and were being followed up at St John's. Dr Norton was based in the Department of Child and Family Psychiatry and Clinical Psychology at Rillbank Terrace, the Royal Hospital for Sick Children in Edinburgh.

At both meetings a number of questions and issues were raised and discussed. The substance of this is summarised below.

A medical diagnosis of AD/HD is made only after an in-depth assessment based on a Clinical Interview carried out with the parent(s) and Developmental History of the child including a genetic history. There will also have been screening for other problems or disorders. Criteria from I.C.D.-10 and D.S.M. IV are adhered to although Dr Scarth like some other medical consultants does not feel that direct observation of the difficulty is reliable and therefore accepts the broader definition of the D.S.M. IV criteria. He also uses the Achenbach Rating Scales and Conners Continuous Performance Test which is now computerised. His colleagues in the Department, which serves all of West Lothian, follow much the same format although do not use the C.P.T. Dr Norton firmly believes in taking a full and detailed Developmental History and uses a "Hyperactivity Disorder Proforma" a comprehensive structured interview schedule covering every aspect of a child's development. She also includes a clinic observation of the child and a mental state examination with a three page checklist drawn from Barkley covering ADHD, Oppositional Defiance Disorder, Conduct Disorder, Separation Anxiety Disorder, Overanxious Disorder, Major Depressive Episode, Dysthymia, and other concerns. She will usually screen for neurological abnormality, and if indicated, instigate further investigations or assessment by occupational or speech and language therapists, paediatric neurologist etc, as necessary. She sends the Conners Rating Scales to the child's school for completion by teaching staff who know the child. Dr Scarth requests a copy of the School Report which the parents or school can provide and may see or observe the child in school. His current case-load and pressure of work prevent him from carrying out any follow-up work in schools which he recognises is not optimum practice. Dr Norton may follow up with a visit to the school or local health centre and will routinely be in touch with the Educational Psychologist for the child's school.

On the issue of medication Dr Scarth made several points. Preferred stimulant medication Ritalin (Methylphenidate) is only prescribed after careful behavioural evaluation. Contra indications might be behavioural tics, excessive anxiety or depression. His follow-up is systematic and rigorous. If parents are not following drug regimes he will pursue them considering that they are guilty of scheduled drug abuse. The effects of medication are monitored through follow up interviews with parents. Descriptions of over-focusing because of inaccurate levels of medication are, he feels due to poor drug management and bad medical practice. In some instances medical politics have been involved because GPs can prescribe direct but because they do not specialise prefer to have Consultant back-up and follow-up. An alternative medication is Dexedrine (Dexamphetamine) which is used as commonly in Australia because it is on the Pharmaceutical Benefits Scheme drug list and is therefore cheaper. Ritalin is used most commonly in this country but because it is known to raise the convulsion threshold in Epilepsy, Dexedrine may be used as an alternative. Other previously prescribed non-stimulant or anti-depressant drugs such as Pemoline (withdrawn in September 97 because it causes liver damage) and Desipramine (Pertofran) not prescribed to children (withdrawn July 1997). Clonidine (Catapres) is used where there are sleep problems, since it is a sedative and usually in combination with stimulant medication. Chris Green uses Imipramine (Tofranil). Dr Scarth like Chris Green, uses drug or medication holidays (he does not use the six year old threshold for diagnosis but currently has no pre-schoolers in West Lothian diagnosed as having ADHD).

With regard to the interface with Educational Psychologists, they feel that all children diagnosed with ADHD are educationally vulnerable. One third have co-morbid conditions -Dyspraxia, Dyslexia, Learning Difficulties, etc. Medication may reduce the symptoms but will have no specific effect on these other difficulties. Learning style is very much an issue and improvement in attention and impulse control may make educational interventions more effective. They advocate multi-modal management of children with ADHD with everyone involved working in partnership but recognize that the reality of this may fall far short of the ideal in practice.

## APPENDIX 2

### Intervention strategies in schools for pupils with ADHD

#### 1. WHOLE SCHOOL STRUCTURES AND SYSTEMS

All schools have a responsibility to identify pupils who have educational difficulties, whether in learning or behaviour, and to attempt to ameliorate their difficulties. Most local authorities now have policies or guidelines on the identification of pupils with educational difficulties, their assessment and the measures proposed to support them and to meet their needs. These may incorporate a series of measures from an Individual Education Plan to a Record of Needs. It is the degree of severity of a pupils' difficulty and the impact on their education that should determine the response and this is particularly true for children with ADHD whether or not they have been diagnosed.

Pupils with ADHD need an extremely consistent approach and their teachers are likely to require a high level of support whether through staff support systems or additional support within the classroom setting. In some local authorities the provision of additional auxiliary support to facilitate on task behaviour has been found helpful. Like many other E.B.D. conditions the difficulties can range from mild to severe and the earlier they are identified and recognised the better. The involvement of the range of agencies who may act in partnership with the school and parents from an early stage is also important. In this respect the Educational Psychologist can have a pivotal role in the co-ordination of these agencies, professionals and others and their effective collaboration with school, parent and pupil. A problem solving approach should be encouraged from the start and a supportive network may enhance this.

#### 2. CLASSROOM MANAGEMENT STRATEGIES

- Teaching style
- Physical arrangement
- Organisation and Lesson Planning
- Behaviour management

##### Teaching Style

- ❖ teachers may have to examine their own teaching style and consider adaptations to the mode, pace and style of presentation of lessons dependent upon the strengths of the individual child
- ❖ a calm firm approach which offers clear boundaries and expectations for acceptable behaviour is beneficial
- ❖ maintaining regular eye contact is most important with these pupils as is a predictable routine

##### Physical Arrangement:

- ❖ classroom seating should be flexible with several tables for group work and rows for independent work. Rows can be used for tasks which do not require interpersonal contact. A horse-shoe of desks has been found to promote discussion without impeding independent work
- ❖ distractible pupils should sit as close to the teacher as possible without it seeming punitive and away from windows, corridors etc to minimise auditory and visual distraction. Distraction-free zones or "work-stations" can be created as learning space for pupils
- ❖ a buddy system can be used so that peer models with good study skills sit next to pupils with attention difficulties and overactivity at least some of the time. Pairing works better than grouping

##### Organisation and Lesson Planning:

- ❖ predictable routines and structures should be established especially for the beginning and ends of lessons and transitions. A five minute warning should be given at the end to enable completion of tasks, putting away of equipment, etc
- ❖ times when pupil movement is permitted and when it is discouraged should be clarified. When appropriate intersperse in-seat tasks with more physical activities
- ❖ children with ADHD require a moderate level of stimulus in conjunction with structured, well-organised lessons. Short, achievable targets should be set and task completion rewarded promptly. A schedule of work ticked off on completion can help the child gain a sense of achievement while colour coding can help the child organise their own work more effectively. A variety of activities should be included in each lesson and a short break before the next target

set. “Priming” helps motivate - it involves previewing the task with the pupil and the likely rewards for successful completion

- ❖ the pace of lesson presentation should be varied and it should be multi-sensory but interesting sounds and pictures must relate directly to the material to be learned
- ❖ pupils with ADHD should be actively involved in lesson preparation. They should be encouraged to develop mental images of the concepts or information being presented and asked to report on their visualisation of key material
- ❖ a calm atmosphere and uncluttered, uncrowded surroundings are required. Keep desk tops as clear as possible

#### **Behaviour Management:**

- ❖ classroom rules should be as few as possible (no more than 5), simple, clear and on display. Make sure the child with ADHD understands them
- ❖ desired behaviour should be actively reinforced. Catch the child being good. Reward the child when on task by praising specific behaviour rather than more generally. (eg. “I’m pleased you finished your four sentences” rather than “Well Done”)
- ❖ pupils with ADHD require more frequent as well as more specific feedback on their performance. Frequent, small, immediate rewards are more effective. They should be negotiated but rotated frequently to avoid loss of interest. Develop a “rewards menu”. Preferred activities, such as working on a computer, are more effective than concrete items such as sweets
- ❖ consequences for breaking the rules should be clearly focused and also highly specific Mild reprimands for being off-task will be more effective when they involve a reminder of the task required. (eg. “Finish writing your sentence, John” rather than “Get on with your work”)
- ❖ interactions with pupils should be calm and assertive with an attitude of positive regard and interest. Frequent movement about the room maximises the degree of proximity control. The pupil should be told exactly why you are pleased with them. That you like them but not their inappropriate behaviour. (eg. “I was sorry you had to go out of class - I like you but not the silly noises you made”)
- ❖ only one target behaviour should be tackled at a time. The “deadman” test should be used - if a dead person can carry out the behaviour required - it is not a behaviour. Look for positive outcomes not just the absence of unwanted behaviour

### **3. INTERVENTION STRATEGIES WITH THE INDIVIDUAL**

Intervention strategies with the individual child with ADHD should reflect the assessment and therefore examples of intervention strategies can be offered under the following headings:

- Inattention
- Impulsiveness
- Overactivity
- Poor organisation and planning
- Non-compliance
- Poor social relationships
- Poor self-esteem

In all interactions with the individual child with ADHD it is important to view them in a positive way and break the cycle of negativity associated with their behaviours. Changing the way of thinking about them in itself can help focus on the solutions to their learning and behaviour problems. **Reframing** is a technique which involves finding new and positive ways in which pupils with problem behaviour might use some of their characteristics to advantage. All children’s behaviour should be framed positively but for pupils with ADHD it allows the teacher to indicate when a behaviour which may not be appropriate in one situation can be highly appropriate in another. Some examples of reframing common classroom problems are as follows:

- being out of seat too much - energetic and lively
- talking out of turn or calling out: - keen to contribute
- losing and forgetting things: - thoughtful, absorbed in own ideas
- distractible: - high level of environmental awareness
- impatient: - goal oriented

- has difficulty converting words into concepts: - visual/concrete thinker
- daydreaming: - bored by mundane tasks, imaginative

Thus the pupil with ADHD might become someone who is viewed as a tireless, imaginative, independent, visual-concrete thinker who is single-minded and not averse to taking risks. When tasks are tailored to harness the positive aspects of their characteristics they are likely to be more motivated and to have enhanced self-esteem. When teachers and others behave towards them in this more positive way, the intervention strategies geared to the specific features of ADHD are more likely to be successful.

#### 4. STRATEGIES TO ADDRESS SPECIFIC BEHAVIOURS:

##### **Inattention:**

- ❖ seat pupil in a quiet area near a good role model away from distracting stimuli
- ❖ give assignments one at a time and gear them to attention span
- ❖ break long assignments into shorter tasks
- ❖ provide frequent, immediate and consistent feedback on behaviour and redirection back to task
- ❖ vary the activities over a lesson period - alternate highly focused activities with tasks that allow for talking and movement
- ❖ give clear, concise instructions and be prepared to repeat them
- ❖ help pupil to set their own short term goals and to be self-aware - teach them to recognise when they need exercise or time out, cue them to stay on task using a private signal or their name discretely when off task
- ❖ provide access to quiet areas and alternative environments for taking tests
- ❖ use headphones for silence, white noise, soothing background music or lively music

##### **Impulsiveness:**

- ❖ seat pupil near a good role model or near the teacher
- ❖ compliment positive behaviour, increase immediate rewards and consequences
- ❖ ignore minor inappropriate behaviour
- ❖ use time-out or careful reprimands for misbehaviour - it is the behaviour not the child that is inappropriate
- ❖ set up a behaviour contract
- ❖ teach self-monitoring behaviour, eg hand-raising, ignore pupils who call out without raising hands
- ❖ teach verbal mediation skills to reduce impulsive behaviour by modelling. Practise a structured routine of stop/listen, look/think, answer/do

##### **Overactivity:**

- ❖ allow legitimate opportunities for moving around the room
- ❖ provide activities for pupil to pursue when finding it difficult to listen (eg playing with lego or play-doh during story-time, listing key words as a teacher talks)
- ❖ arrange to have short breaks between assignments
- ❖ remind pupil to check work if performance is rushed or careless
- ❖ plan ahead for transitions: talk it through, set basic rules, supervise closely, use an extra helper

##### **Poor organisation and planning:**

- ❖ establish and display a daily classroom routine and schedule
- ❖ organise desks, jotters, etc daily
- ❖ ask parents to use organiser trays at home marked with the day of the week so that books and work required at school that day are all together
- ❖ display a personal timetable and provide pupil with a checklist to ensure that a task is correctly completed
- ❖ provide rules for getting organised
- ❖ give assignments one at a time and help pupil achieve short-term goals by completing tasks

**Non-compliance:**

- ❖ praise compliant behaviour
- ❖ provide immediate feedback about acceptable and unacceptable behaviour
- ❖ use teacher attention to reinforce positive behaviour
- ❖ teach self-monitoring of behaviour (obeying rules)
- ❖ set up behaviour contracts

**Poor social relationships:**

- ❖ praise appropriate social relationships
- ❖ organise social skills training to teach concepts of communication, participation and co-operation
- ❖ set up social behaviour goals with pupil and implement a reward programme
- ❖ praise pupil frequently to increase esteem within the classroom
- ❖ encourage co-operative learning tasks with other pupils
- ❖ assign special responsibilities to pupil in presence of peers so that they observe pupil positively

**Poor self-esteem:**

- ❖ provide reassurance and encouragement
- ❖ frequently compliment positive behaviour
- ❖ focus on pupils talents and accomplishments
- ❖ look for signs of stress and reinforce frequently when signs of frustration are noticed
- ❖ look for opportunities for pupil to display a leadership role in class.

**Part 1 to be discussed with head teacher**

Name / address of school

Type of school (eg mainstream, MLD etc)

School roll

Stage (eg. P2)  Gender  Date of Birth

Is the pupil on medication

Using the statements below, tick the boxes that best describe the child:

<b>Impulsivity</b>	<b>Not at all</b>	<b>A little</b>	<b>Pretty much</b>	<b>Very much</b>
(i) Often blurts out answers to questions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) Often engages in potentially dangerous activities without thinking of consequences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Has difficulty awaiting turn in groups	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Inattention</b>				
(i) Often shifts from one uncompleted activity to another	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) Has difficulty listening to and following instructions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Often loses things necessary for tasks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Overactivity</b>				
(i) Often fidgets or squirms in seat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Has difficulty remaining seated	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Appears restless	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Part 3 to be completed by psychologist**

Is the pupil known to Psychological Service?

Does the pupil have a Record of Needs?  IEP / FSI?

Name of child:

Name of EP:

## **APPENDIX 4**

### **Details of Yorkhill Preschool Programme for ADHD**

The unit is based within the Department of Child and Family Psychiatry which is situated in the Royal Hospital for Sick Children in Glasgow. It targets a population of 3 to 5 year old children who have been identified as having problems associated with hyperactivity, impulsivity and inattentiveness.

#### **Aims of the Unit**

The unit is managed by a Senior Registrar at the hospital and a staff which includes a senior nurse, a clinical psychologist and an experienced teacher. The teacher has various responsibilities including: devising and structuring the unit programmes, management of each daily session, and providing instruction and training for the volunteer therapists

Access to the unit is dependent upon the child being diagnosed as having an ADHD type disorder. Referral to the unit only comes following a period of assessment and information gathering by the unit staff involving parents, school staff and other professionals involved with the child.

The aim of the unit is to provide a structured programme which can help the children to:

- decrease and control their activity level
- reduce and control their impulsive behaviour
- increase their span of attention

In order that they can function in a more appropriate way with their parents, school staff and peer group, in a variety of social contexts.

#### **Structure of Unit**

On admission to the unit, each child is assigned a volunteer therapist who works with that child for the duration of the programme. These therapist undergo 'on the job' training as they are often inexperienced in working with children with ADHD type disorders. Each programme involves a group of 5 children and runs daily for 10 weeks from 10 am to 2 pm.

The unit consists of several rooms, one of which is set up as a playroom and is the main focus of the work with the children's. This room has several cctv cameras and microphones placed at strategic points in the room, in order that the children's actions and behaviours can be observed and recorded on video.

On one wall there is a two way mirror, behind which there is a smaller room which is used for observing the children and the trainee therapists working with them. It also contains the technical equipment, cctv monitors, VCR's etc. There is a technician who is responsible for recording each session and maintaining the equipment.

The teacher is usually in this room observing, via cctv or two-way mirror, what is happening in the playroom. Each of the therapists wears a radio earpiece which enables the teacher to communicate with them to direct their actions. The cctv allows the teacher to home in on individual children and to record their behaviours and interactions in different parts of the room. These recordings provide a record of a child's progress and can also be used for the purpose of instruction.

#### **Unit Programme**

The daily unit programme consists of free play sessions, sessions of prescribed play, a break for juice, a ball pool session and a lunch break. A typical daily programme is as follows:

- the programme starts with a free play session which initially is relatively unstructured, but more structure is built in as the programme progresses
- an individual special play session in which activities are used to build up the child's span of attention
- diary time, the aim of which is to increase the child's self esteem
- juice time
- physical activity, e.g. ball pool
- a game in which the children sit on the floor and roll a ball to each other, encouraging cooperation and social interaction

- lunch time with parents
- ball pool activity
- various games e.g. sleeping lions, listening rabbits, to encourage impulse control and attentional skills

The children are given early warning of transition points throughout the sessions and are expected to tidy up after each activity. In general, there are no magic elements to the programme. What is provided is similar to what could be expected to happen in a good nursery class. The main difference is the degree of individual attention each child receives, and the expertise provided by unit staff. The therapists are encouraged to employ a variety strategies to help the children to manage their behaviour, e.g.

- ignoring, diverting or distracting from inappropriate behaviour
- little or no attention is given to negative behaviour
- recognition is given to appropriate behaviour.
- time out strategy is used as a last resort .

The programme has a parallel element involving parents. While the children are working through their programme, a member of staff works with the parents to facilitate their better understanding and management of their child's behaviour. The parents are then expected to interact with their child during the lunch break. This session is also recorded on video and is used for teaching and evaluation purposes. The unit programme also involves homework tasks which gives an opportunity to involve fathers.

## **APPENDIX 5**

### **Details of S.C. Primary Age Unit**

This provision caters for pupils in the primary age range who have attentional difficulties; have poor impulse control; find following instructions difficult; and have difficulty being part of a group.

**The aims of the unit are:**

- to help primary aged pupils with learning difficulties which are associated with specific problems in attention, motor control and hyperactivity
- to implement individually designed education programmes and management strategies
- to enhance their abilities to cope in a mainstream school setting and return them to their local school as soon as possible

**The objectives of the unit are:**

- To provide, in partnership with mainstream schools, a part-time educational placement for primary aged children who experience specific learning difficulties associated with poor attention, motor control and hyperactivity.
- To provide structured programmes of work tailored to meet each child's individual needs.
- To enable children to develop more effective learning strategies.
- To raise self esteem and confidence by allowing the children to experience success at their own level.
- To help children to reduce and control their activity level so that they can function more effectively in their mainstream classes
- To reintegrate children to mainstream primary school as soon as possible.

**Criteria for Admission**

The Unit aims to help children who have motor learning difficulties. Such children frequently have specific problems with attention, concentration, motor control, and high levels of physical activity all of which interfere with learning. They may also present with secondary behaviour, social and emotional problems which stem from their impulsivity, clumsiness, short attention span and over activity.

The Unit does not cater for children whose difficulties are related to general slow development or for whom the behavioural difficulty is the primary problem. Other forms of provision may be more suitable in such cases.

**Referral and Admissions Procedure**

Children are referred to the unit by the school psychologist. A referral normally takes place following the implementation of school based strategies and monitoring procedures, incorporating the advice of external support teachers where appropriate. When these monitoring procedures suggest that the child requires further assessment and/or more intensive help than is available within school resources the school psychologist becomes involved.

If the school psychologist feels that the Unit is a potential source of help, the possibility of referral will be discussed with the senior psychologist in the Unit. A referral form can then be completed in consultation with the school and parents. A Pre-Admissions Meeting is arranged at this point and a booklet describing the functioning of the Unit is available for the school and parent. The parent and child will be invited to visit the Unit.

Where it is felt that the Unit is likely to have a role to play in helping the child, arrangements are made for the child to have a period of assessment. This involves the pupil attending the Unit for one day a week over a six week period. During this period Unit teaching staff will work with the child, completing a detailed observation schedule and assessing the child's educational needs.

After the six week period the placement is reviewed at a meeting involving the parents and all professionals currently working with the child. The purpose of this meeting is to make a recommendation to the Education Officer about the appropriateness of Unit placement for the child. If placement is endorsed by the Education Officer, an agreement will be reached with the child's school, setting out objectives and details of how the school and Unit staff will work together in order to ensure continuity of approach. Arrangements are also made for liaison between Unit and mainstream staff to coordinate the use of methods and materials. A subsequent review meeting is arranged.

### **Attendance at Provision**

Initially a pupil is brought in for an assessment period of one day per week over a six week period. Pupils attend on a part-time placement (Mon, Tue, Wed or Thur, Friday). The rest of the week the pupil attends their mainstream school. An agreement between school, Unit and parents as to the terms of the placement is discussed at the admissions meeting.

### **Curriculum**

The Unit offers a broad curriculum in keeping with the 5-14 Development Programme with adaptations, if appropriate, to meet individual needs. The curricular areas include Language, Maths, Expressive Arts, Environmental Studies, Information Technology and Personal Social Development. In addition, emphasis is placed on individually designed activities geared to overcome specific areas of difficulty such as gross and fine motor co-ordination, motor planning, organisation and perceptual development.

An Individual Education Programme based on the pupil's needs is devised at the beginning of the placement, in consultation with the child's own school. This is kept under review.

Good working relationships exist at all levels with staff and pupils in the primary school. Pupils at the Unit are integrated into the curriculum of primary school in Music and PE, at present, with plans to develop further such integration with the school.

The unit is well integrated socially within the primary school and Unit children take part in a range of activities such as sports day, Christmas fair and school shows. The pupils would tend to work on the formal curriculum am's while focussing on the informal curriculum and practical activities pm. The formal curriculum is adapted where relevant. The pupil is encouraged to work at their own desk and organisation of materials and completing tasks encouraged.

The Unit employs a behavioural points system and there would be some discussion of how the pupil has done at the end of the day.

The Unit uses 'circle time' to help encourage self-expression and talk.

### **Reviews**

Pupils are reviewed annually. Not all pupils in the Unit are Recorded. Sometimes the decision to open a Record of Needs is made when the pupil is reviewed.

### **Setting up such Provision**

In order to set up such a provision the minimum essentials would be:

- a receptive primary school to be the 'host' for such a provision
- adequate space for a class base and appropriate offices
- a staff to pupil ratio of at least 1:6
- good relationships across unit staff, school staff and associated agencies
- resources to support counselling and work with parents

## **APPENDIX 6**

### **Meeting with ADHD West of Scotland Parent Support Group**

Two of the psychologists met with 6 parents from the ADHD West of Scotland parent support group. One parent was the mother of a preschool child, the rest were either parents of primary or secondary aged children. One mother's child was in a residential school. The format was a semi-structured interview loosely based on the following questions:

- 1 What advice were you given and by whom?
- 2 Did the advice make a difference? Why? Why not?
- 3 What kind of difficulties have you encountered?
- 4 What kind of structures or procedures would have helped?
- 5 In terms of education, what was/would have been helpful?
- 6 What are your worries for the future?
- 7 What's the worst aspect of having a child with ADHD?
- 8 What are the positives?
- 9 Does anyone else in the family have ADHD?
- 10 How has ADHD affected other members of your family?
- 11 What kind of input from psychological services would be helpful?

Generally, the parents present had experienced many difficulties in obtaining a diagnosis of ADHD. Their children had displayed significant behaviour problems from an early age; with most, hyperactivity, distractible and impulsive behaviours were evident from babyhood. However, the professionals involved (doctors, teachers, psychologists) in the early years seemed to imply that the parents were at fault in some way. Parents were asked to respond to the same questions regarding the developmental history of their child again and again. Often professionals involved did not observe the child in real settings (ie at home, in the school or in the nursery) but relied solely on a one-off individual assessment. Following diagnosis - which for some parents came at secondary stage - parents were usually offered medication but no other support. The parent of the preschool child had been through the Yorkhill preschool behaviour programme and spoke positively about sharing problems with other parents and the advice given although she made the point that such a clinical setting with one to one therapy does not match reality.

Most parents agreed that throughout the process leading to diagnosis, medication was not their main aim. It seems that the parents were seeking recognition that their child had a known condition and that they needed special help. The parents expressed the idea that there is a peak age for medication; several noted that medication prescribed late on (early adolescence plus) led to aggressive behaviour. All stressed the need for early identification and assessment.

The main areas of difficulty for the ADHD child noted by the parents were making and maintaining friendships, being aware of social cues, having no fear of pain or danger, the transition from primary to secondary, unpredictable and an oversensitive nature.

In terms of what works in school, the following points were made by the parents:

- a structured, firm and, at times, humorous teaching style
- the whole school being aware of, and making allowances for, the ADHD child (including janitor etc).
- extra learning support
- auxiliaries to keep child on task and provide positive feedback
- behaviour support
- behaviour charts
- points system

- home-school jotters

Parents found that in terms of home management, small and simple punishments, time out and lots of space worked best. Parents expressed feelings of isolation (eg not being able to go out in the evenings or go on holiday) and worries for the future (eg their child not being able to have a job or get married). Having an ADHD child in the family also had a detrimental effect on family relationships; parents noted that siblings could either mimic the ADHD child's behaviour or become withdrawn. The only positive aspect of ADHD mentioned was that such children could make good leaders.

In terms of what would be helpful from educational psychologists, the following points were made:

- listening to parents and accepting what they say
- discussing the child with the child's class teacher (often only head teachers are involved)
- observing the child in different settings (ie home and class)
- being aware of ADHD and the assessment/treatment process

## APPENDIX 7

### Parental Interview Schedule

**Pupils Name:**

**School:**

**Date of Birth:**

**Stage:**

(i) Early History

- 1 Details of pregnancy/birth:
- 2 Stages of development:
- 3 Eating/sleeping/temperament:
- 4 When did you first become concerned about your child's behaviour?
- 5 What did you do?
- 6 Who did you consult?
- 7 What help did you receive?
- 8 How could things have been better?
- 9 Have any other members of your family displayed behaviour difficulties in the past?

(ii) Professional Involvement

- 1 Name the range of professionals involved with your child.
- 2 What has been your experience of this?
- 3 How could this input have been improved?

(iii) Diagnosis

- 1 When was the first mention made of Attention Deficit Hyperactivity Disorder and who suggested it?
- 2 How old was your child when actually diagnosed?
- 3 Who was involved in the diagnosis?
- 4 How would you describe the process of diagnosis?
- 5 How did you feel about the diagnosis?
- 6 Was your child prescribed medication? If so, what and at what stage?
- 7 What effect did medication have?
- 8 Were you given advice on behaviour management?
- 9 What was this advice and who gave it?
- 10 How useful was this advice?
- 11 Were you or your child offered any other types of support? If so, what?
- 12 How useful was this support?
- 13 Does your child have any other recognised difficulties (eg dyslexia)?

14 What are your child's strengths?

15 How could the management of diagnosis have been better?

(iv) Education

1 Did your child receive preschool education? Describe the experience.

2 Where did your child start school? Describe the experience.

3 List any other changes of school and current school.

4 How did the school respond to your child's difficulties?

5 Were any supports put in place for your child?

6 Was your child referred to psychological services? If so, when?

7 How could your child's management in education have been improved?

## CLASSROOM OBSERVATION SCALES

- 1 = ADHD
- 2 = Suspect
- 3 = Random Girl
- 4 = Random Boy (1)
- 5 = Random Boy (2)

- O - off task
- T - talking out of turn
- N - no contact with chair
- D - distracting peers

### 30 Second Intervals

Int	O					T					N					D				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
1																				
2																				
3																				
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## APPENDIX 9

### Class teacher Structured Interview

School: Pupil: 1 2 Medication: Y/N

Teacher: Date: ⊗ significant factors

#### SECTION 1

- Outline the difficulties the child is having.

- concentrating/remaining on task		- working independently	
- completing tasks		- fidgeting	
- sitting in seat		- excessive/inappropriate talking	
- following instructions		- disrupting peers	
- following class routines			

- In what situations does the child perform best?

- short task		- before break	
- oral task		- after break	
- written task		- afternoon	
- paired/group task			

- If on medication, are there any obvious signs of its effectiveness wearing off?
- If yes, what are they?
- ⊗ Is there variation in the child's performance in regards to:

- activity level			
- impulsivity level			
- concentration			
- work output			

- What strengths does the child have?

- interpersonal			
- creative/imaginative			
- practical skills			
- curriculum area			

- How is the child performing in the following curriculum areas?

**5 - 14 LEVEL**

- Language/Reading
  - ⊗ Handwriting/Fine Motor
  - Listening/Comprehension  
(⊗ at tangent - poor sequencing)
  - Maths
  - Gross Motor/PE
- Describe the child's social interactions/behaviour (circle)

**POPULAR / UNPOPULAR**

**HIGH ESTEEM / LOW ESTEEM**

**CONFIDENT / UNCONFIDENT**

**PART OF GROUP / ISOLATED**

**INITIATOR / RESPONDER**

**In comparison to his peer group, to what extent is the child: (circle)**

- (a) an independent learner: → can follow instruction Y/N  
 → can follow class routines Y / N
- can work in group setting Y / N
- can organise self/materials Y / N
- can maintain self direction Y / N
- can complete tasks Y / N

- (b)  
 a motivated learner: → voluntarily participates Y / N
- co-operates with adults Y / N
- shows interest in activities Y / N
- is willing to attempt tasks Y / N

- **Compared to other children of the same ability level in class is the child's written work output: (circle)**

Below average

average

above average

- **What strategies have you tried so far?**

- reward system		- task sheet	
- peer buddying		- timer	
- extra time for tasks			
- extra adult support			

- **Which strategies have been particularly useful/effective?**

**SECTION 2**

	<b>Yes</b>		<b>No</b>
<b>Inattentiveness</b>			
- is the child able to follow single instructions?			
- is the child able to follow multiple instructions?			
- is the child able to complete tasks?			
- is the child easily distracted?			
<b>Impulsiveness</b>			
- does the child participate in class discussions?			
- is the child aware of consequences?			
- is the child a slow steady worker?			
- is the child a 'rusher'?			
<b>Overactivity</b>			
- is the child out of his seat a lot?			
- is the child a chatterbox?			
- does the child constantly fiddle with objects?			
- does the child constantly ask questions?			

**OBSERVATIONAL NOTES:**

**Classroom Context**

**Open Plan**

**Y / N**

<b>Class size</b>	
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**Noise level**

**1    2    3 (circle)**

**Additional Adults**

**Y / N**

**Further Comments:**

## APPENDIX 10 : LIST OF PARTICIPANTS

<b>NAME, COUNCIL AND TEL. NUMBER</b>	<b>ADDRESS</b>
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