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**Identifying a weakness in the UK education system of supporting
children with complex social, emotional and behavioural
difficulties/ADHD - is government policy preventing effective inclusion
for some pupils?**

This thesis is submitted in part fulfilment for the

Doctorate in Education (EdD)

DECLARATION

I certify that this work has not been accepted in substance for any degree, and is not concurrently being submitted for any degree other than that of the Doctorate in Education being studied at the University of Greenwich. I also declare that this work is the result of my own investigations except where otherwise identified by references and that I have not plagiarised another's work.

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Identifying a weakness in the UK education system of supporting young people with complex social, emotional and behavioural difficulties/ADHD – is government policy preventing effective inclusion for some groups?

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Abstract

A short attention span, impulsivity, distractibility, and hyperactivity are characteristics that are commonly found in young children and sometimes in adults. These difficulties also meet the American Psychiatric Association diagnostic criteria for attention deficit hyperactivity disorder (ADHD). The British Psychological Society has adopted the term 'bio-psycho-social' to reflect the complex and multi-dimensional nature of ADHD. In young people, these symptoms interfere with learning, interpersonal relationships and self-esteem and can lead to social and educational exclusion. The use of drugs in the treatment of ADHD remains controversial and according to the 2005 prescription cost analysis (Cohen, 2006), Ritalin use has risen by 7600 per cent. Unfortunately, since the move away from the medical model following the 1978 Warnock Report on supporting children with special needs, a mindset has been created amongst teachers regarding the identification and assessment of children with certain types of complex needs as being outside of their expertise and this has resulted in teachers placing an over-reliance on external support services and specialists. This thesis proposes an enhancement to the existing over-complicated and bureaucratic system of identification and support for behavioural, social and emotional difficulties (BESD)/ADHD that develops the expertise and the role of the SENCO and thus streamlines identification of individual need and enhances educational support for ADHD sufferers. This research thesis used a case study approach with an interpretive dimension to enable the researcher to enter the working world of doctors and other medical professionals, teachers and classroom support assistants, and children as the ultimate subjects of this enquiry. The purpose of the study was to extend my knowledge of a complex childhood phenomenon and to examine the systems put in place in schools and support services that identify certain SEN and disorders that affect learning. An analysis of the role of teachers and school special needs coordinators was explored along with government policy on inclusion practices. The role of professionals from medicine and education in LEA support services was also examined and reported. A total of eighteen questionnaires were used to target key personnel in LEA support services. This was followed up with interviews at support services and in schools. A total of six medical professionals and a further nine educational professionals were interviewed. Three classroom observations were also conducted at a London comprehensive school. Analysis of the resulting data led to the identification of a series of Figures and a flowchart depicting the 'story' of this difficult process, with a proposed enhancement for earlier BSED/ADHD identification and support, and a range of recommendations. Although this was a small-scale research study, the literature and the comments from professionals cited from the national expert SENCO Forum indicate that my findings reflect a much wider picture locally and nationally.

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Dedication

To Mum and Dad

God Bless

Glossary

| | |
|--------|---|
| ADD | Attention deficit disorder without hyperactivity |
| ADHD | Attention deficit hyperactivity disorder (Sometimes expressed as AD/HD, or ADDH) |
| APA | American Psychiatric Association |
| ASD | Autistic Spectrum Disorders |
| CD | Conduct Disorder |
| CDC | Child Development Centres |
| CAMHS | Child and Adolescent Mental Health Services |
| CSW | Classroom Support Workers |
| DES | Department of Education and Skills |
| DSM | Diagnostic and Statistical Manual of Mental Disorders |
| EBD | Emotional and Behavioural Difficulty |
| ESBD | Emotional Social and Behavioural Difficulty |
| ICD | International Classification of Diseases |
| LSA | Learning Support Assistant |
| NICE | National Institute of Clinical Excellence |
| ODD | Oppositional Defiant Disorder |
| OFSTED | Office for Standards in Education |
| PET | Positron Emission Tomography |
| PMLD | Profound and Multiple Learning Difficulties |
| PRU | Pupil Referral Unit |
| SEBD | Social and Emotional Behavioural Difficulties |
| SEN | Special Educational Needs |

| | |
|-------|--|
| SENCO | Special Educational Needs Co-ordinator |
| SENDA | Special Educational Needs and Disability Act |
| SLD | Severe Learning Difficulties |
| SPECT | Single Photon Emission Computerised Tomography |
| SpLD | Specific Learning Difficulties or Dyslexia |
| WHO | World Health Organisation |

Chapter 1: Introduction

This research thesis came about as a result of my own professional practice as a teacher of children with special educational needs and through my experiences of teaching young people with highly complex needs. When I began my teaching career I was working in the mainstream schools sector and noticed during that time that a number of children had difficulty controlling their emotions and behaviour. Some years later as part of my Masters in Education course at university I undertook a placement at an all boys' special school for pupils with emotional and behavioural difficulties. I quickly learnt that the emotional and behavioural difficulties being faced by these pupils were seen, in some cases, as outside of their control. The school used a behaviourist approach with a combination of sanctions and rewards to help pupils take ownership of their behaviour and to help control unwanted negative behaviours. A number of the pupils at this special school had a statement showing a diagnosis of attention deficit hyperactivity disorder (ADHD). The diagnosis of this disorder meant pupils had difficulty with attention to task, control of negative behaviours and, in some cases, aggression and hyperactivity. These pupils were considered to have internalised difficulties that can also be exacerbated by their environment at home and at school. The difficulties being faced by pupils necessitated a high structure to their day and a highly structured teaching regime to help them control negative behaviours. Even break times were organised and structured to avoid too much 'free time'. Some pupils also had a prescription for regular medication to help them with difficulties such as lack of concentration or hyperactivity. However, although I could see the

benefits of this structured and behaviourist approach to helping these pupils, I had little knowledge or understanding of the underlying cause/s of their behaviour. Following this short-term placement and the completion of my studies, I decided to apply for a full time teaching post in a residential/day special school for pupils with emotional and behavioural difficulties. According to Mehra (2002)

A researcher's personal beliefs and values are reflected not only in the choice of methodology and interpretation of findings, but also in the choice of a research topic. In other words, what we believe in determines what we want to study (Mehra, 2002 p.5)

The research I conducted used a qualitative case study and narrative methodology. The purpose was for me to develop an understanding and extend my knowledge of a complex childhood phenomenon that I had encountered throughout my teaching career. My role as a researcher in the context of the research process was to examine the systems used in identifying and supporting children with complex social, emotional and behavioural needs.

According to Stake (1995) 'A case may be simple or complex. It may be a child or a classroom of children or a mobilisation of professionals to study a childhood condition'. Stake goes on to suggest that an intrinsic case study is undertaken because one wants better understanding of this particular case. Creswell (1998) defines qualitative research as:

... an enquiry process of understanding based on distinct methodological traditions of enquiry that explore a social or human problem. The researcher builds a complex, holistic picture, analyses words, reports detailed views of informants, and conducts the study in a natural setting. (Creswell, 1998:15)

The case that will be studied through this research is Attention Deficit Hyperactivity Disorder (ADHD) which is a childhood disorder that is becoming increasingly common, affects learning, effects social outcomes and standing, has a bearing on

families and can be debilitating for the sufferer. ADHD is controversial because there are still eminent professionals and scientists, such as Professor Steven Rose, who reject the categorisation of the condition as a disorder at all, regarding it as socially constructed and suggesting that 'many of these proposed mind manipulations are on the fringe of science fiction' (Rose, 2005). These views also fuel the controversy over the use of mind-changing drugs in the treatment of the disorder (Norris & Lloyd, 2000). However, differing views amongst health and educational professionals as to what constitutes ADHD (or in fact any other childhood disorder) serve as a good case for study because childhood disorders affect the lives of so many people as well as the sufferer. Teachers, researchers and other professionals have striven for many years to unravel the mysteries and complexities of disorders such as ADHD and how best to treat them. It is only now with the advancement of medical technology that more concrete evidence is finally dispersing the myths of the past that have suggested spurious causes.

Qualitative Case Study Research

This thesis examines a process and tells a story. It is a chronology of events and gives a personal account of my experiences as a practitioner and researcher, utilising data from those experiences as one source of evidence within this research context. At the same time the study investigates a social and scientific phenomenon that, due to technological and medical advances, has emerged in the forefront of psychiatric research. The Canadian professor of psychiatry, Rosemary Tannock, succinctly describes the phenomenon of ADHD as 'the current label for one of the most prevalent and intensively studied syndromes in child psychiatry' (Tannock, 1998: 65) In my research I give an account of my experiences as a special needs teacher and examine the typical processes involved in the identification of a childhood disorder

encountered in the inclusive classroom, and through the lived experience of the classroom teacher and the special needs coordinator. I take the reader through the guidelines of the government's Code of Practice on SEN (DfES, 2001) and describe how the often-bureaucratic processes that emerge can actually hinder the identification and diagnosis of more complex disorders.

My research followed the processes involved in identifying and diagnosing a disorder that went beyond the school phase and thus entered the diagnostic and scientific world of pharmacology, paediatrics, psychiatry and neuroscience. A chronology of events evolved: how do teachers identify SEN? What processes are put in place to help with this identification? At what stage do doctors, psychologists and psychiatrists become involved? What is the justification for prescribing psycho-stimulant drugs? What is the role of support assistants, therapists and other professionals? What is the impact on government educational policy and teachers and how does this affect the child and their family? This chronological approach is designed to see events unfold slowly over time (Creswell, 1998).

Qualitative research does not use any single method in its structure and can best be viewed as multimethod. According to Denzin and Lincoln (1998) 'qualitative researchers use semiotics, narrative, content, discourse, archival, phonetic analysis, even statistics' (p.5). Within the field of qualitative research, Cohen, Manion & Morrison (2001) see case study research as a combination of rich and vivid description of events relevant to the case; providing a chronological narrative of the events relative to the case; blending a description of events with the analysis of them; focusing on individual actors or groups of actors, and seeking to understand their

perception of events; highlighting specific events that are relevant to the case; the researcher is integrally involved in the case and an attempt is made to portray the richness of the case in writing up the report (p. 182). Although this thesis is overall a case study, there are also elements of narrative and quantitative methods of research considered within the analysis of the 'case' and thus plausible conclusions are reached. Despite this, it is merely a chapter in the novel of life that children with disabilities experience on a daily basis. This is a small- scale study that examines the ADHD phenomenon within my own professional context. Thus, although this research is limited by this context, the literature suggests that the findings reflect a much wider picture.

This thesis, therefore, explores a process of identifying, assessing and diagnosing a complex and controversial special need (ADHD). Through questionnaires and interviews with doctors, medical specialists and teachers, I have discovered instances in which a lack of knowledge and expertise amongst teaching professionals has led to a situation where a range of neurological disorders, including ADHD, can go unnoticed in the classroom. Even when symptoms of a disorder are noticed, lengthy and bureaucratic procedures are put into place involving medical and psychological assessment and a possible diagnosis through external agencies. It is at this point that teachers view certain disorders as outside of their control and under the remit of medical professionals and possible treatment with drugs.

The thesis makes a contribution to knowledge in the identification of vicious circle in which disorders that affect learning and behaviour are not identified or supported in the early stages, leading to disaffection and an exacerbation of other social and

learning problems. This has created a situation in which a rising number of pupils with social, emotional and behavioural difficulties and ADHD are being excluded from mainstream and special schools. This goes against government inclusion policies. A further problem is highlighted through the identification of huge increases in the prescribing of Ritalin and other similar drugs in the disorders treatment. Hence, a tension arises between stated government policy and the practical situations affecting teachers in schools. This is further exacerbated by contradictory government policy statements on inclusion versus the standard policies.

One possible solution to this problem is to enhance the status and role of the SEN coordinator (SENCO) as the 'in-house' expert through additional funding and specialist training. This, if effectively done, reduces the need for referral to external specialists and enables the SENCO to provide effective intervention and support for children's complex needs. In addition, this solution signifies an acceptance that a range of neurological conditions from dyslexia to autism and ADHD are 'medical' and 'within-child' and therefore may require special interventions over and above the normal support for SEN pupils.

Process and Product: don't just read the label - know the ingredients

Teachers and other educational professionals develop educational processes that assist their teaching and consequently student learning. A part of this process is to categorise students by their ability, which is commonly known as banding or setting. These processes are important and essential as they assist the teacher with developing the appropriate lesson content, pace of the lesson and level of difficulty and challenge to students. However, many of today's classrooms follow the modern trend of being

mixed ability in which the teacher uses differentiation strategies to enable students of different or lesser ability to be able to access the lesson content and develop learning alongside their more able peers. However, the child with special educational needs is in a category that requires special attention particularly where those needs are of a complex nature.

Special educational needs or SEN is a relatively new term to describe students who have a 'learning difficulty, which calls for special educational provision to be made for them' (DFES, 2001: 6). The generic term 'special educational needs' came about as a result of the Warnock committee report (DES, 1978) and brought in a fundamental ideological change with regard to special education as it dispensed with the 'medical model' of categorising children with physical and learning difficulties such as educationally sub normal (ESN) and replaced it with the generic category of special educational needs and the notion of including young people with SEN into the mainstream classroom. Prior to the Warnock report (DES, 1978), children with severe mental or physical difficulties were placed in special schools or units where they could receive high levels of support and the benefits of specialised teaching and equipment. In mainstream schools, there were still children who had different ability from the majority of their peers and were deemed to be slow at learning or even 'backward'. These children were categorised by teachers as 'remedial' and were often placed in special classes and provided with a simplified curriculum to suit their needs and pace of learning. However, subsequent legislation since the Warnock committee report (1978) and in particular the Education Acts 1993 and 1996, which placed a duty on the secretary of state to issue a Code of Practice, has further consolidated the inclusion of children with a wide range of physical and learning difficulties who

would have previously been educated in the special schools sector. The original Code of Practice came into effect in 1994. The revised Code of Practice came into effect in 2001 and includes new rights and duties introduced by the SEN and Disability Act 2001 and regulations. The Special Educational Needs and Disability Act (SENDA) 2001 gave 'a stronger right for children with SEN to be educated at a mainstream school' (DFES, 2001: 4).

The inclusion of children with special educational needs into the mainstream classroom has not entirely meant that schools have dispensed with categorising children into certain groups or removed stigmatising labels in every case. Teachers do not use terms such as 'sub-normal' or 'retarded' because these disabilities have been given new less stigmatising terms such as Severe Learning Difficulties (SLD) or Profound and Multiple Learning Difficulties (PMLD). Teachers also use terms such as Dyslexia or Specific Learning Difficulty (SpLD), Autism or Autistic Spectrum Disorder (ASD) and Attention Deficit Hyperactivity Disorder (ADHD). The main changes have been a move away from categorising children's difficulties using medical terms and connotations and a move towards an emphasis on a young person's learning difficulties. These changes of categories and re-classification of disorders are fundamental, as they move away from the deficit or within-child model of special need (medical model) and place a greater emphasis on teaching method, support and environment in overcoming a child's learning difficulties. However, many children's special needs are indeed medical and 'within-child' and can be differentiated from the 'slow learner' or poor reader.

The mainstream classroom includes a wide variety of children with special needs, including learning and physical difficulties. The dilemma faced by the classroom teacher is the accurate assessment of those needs. In order to be able to assess a child's needs it is necessary for the classroom teacher to gain an understanding of the nature of the child's disability and thus develop appropriate teaching strategies and levels of support to enable the child to access the curriculum and develop learning. Therefore, the onus falls on the classroom teacher to initiate a process of identifying the problem or difficulty, develop an understanding of the manifestations of the difficulty and how it affects learning and how best to support the child in the classroom. The identification of a special need is particularly important with more complex difficulties such as autism or ADHD because intervention will usually require multi-agency and medical support and thus early intervention is essential. However, in the case of those pupils who may be suffering from a social, emotional and behavioural difficulty such as ADHD, OFSTED has commented that 'newly trained teachers often report that initial training contained very little specific guidance as to how to understand and manage pupils' difficult behaviour'. They also suggest that 'many teachers...had little experience of working with pupils who have ESB...even in effective PRUs; training opportunities to develop strategies for working with the most difficult pupils are limited' (OFSTED, 2005:12) The result of this lack of knowledge and understanding is that the pupils' needs are not identified at the early stages, which can cause problems to escalate.

As a SENCO working in a mainstream school I had a first hand experience of the systems in place for the referral and subsequent assessment of pupils presenting with complex neurobiological conditions. These would include those on the autistic

spectrum, moderate learning difficulties, dyslexia and ADHD. Initially referral would be made to appropriate professionals and specialists such as an educational psychologist or psychiatrist. In some cases where a diagnosis of a condition or disorder had already been established, these professionals would be able to advise teachers on various interventions and support strategies to assist learning and development. However, when a child presented with a problem that has not been medically diagnosed, a referral to a Child Development Centre (CDC) or Child and Adolescent Mental Health Centre (CAMHS) was required. These centres employ paediatricians and other specialist staff such as psychiatrists and clinical psychologists to carry out formal assessment and diagnosis of a range of complex medical conditions.

It has been established in this thesis that more complex social, emotional and behavioural difficulties such as ADHD can remain unidentified for too long and this can lead to further difficulties for sufferers. The characteristic behaviours associated with neurologically based disorders such as attention deficit and hyperactivity can and do lead to social and learning difficulties in schools and in some cases throughout life.

Because children with ADHD are subsumed into the overarching category of behavioural, social and emotional difficulties (BSED) they are often treated in the same way as children without a medically diagnosed disorder. The government's guidance on the education of children with BSED as a special need acknowledges that 'careful consideration should be given to whether there may be unidentified SEN or an underlying disability' (DCSF, 2008: 7). However, the Report also acknowledges that exclusion data shows high rates of exclusion of children and young people with

SEN (ibid). Although a formal diagnosis is not necessary for a child to be identified as having BSED it is argued in this thesis that if a child is suffering from a medical or psychiatrically defined disorder such as autism or ADHD and the underlying (neurological) cause of their difficulties have not been formally diagnosed then appropriate support and intervention may prove difficult.

This thesis examines the guidance and processes put in place through the DfES Code of Practice (2001) and, through my own experiences as a school SENCO, the ways in which children are assessed and diagnosed. Explicitly, this thesis examines the following: what processes are in place through the Special Educational Needs Code of Practice (DfES, 2001) to refer children for formal assessment? What are the consequences for teaching and curriculum support when a diagnosis has been made? What are the effects of any prescribed medication on behavioural and educational outcomes? And, how does this fit with government initiatives such as Every Child Matters and, in particular, Removing Barriers to Achievement (DfES, 2004)?

The research for this thesis set out to examine the processes of identifying children with complex SEN and how teachers refer them for assessment and diagnosis. The need to establish the medical framework for diagnosis and the justification for using stimulant drugs as part of a multi-modal treatment regime was also examined and reported. In order to establish the need for intervention by doctors and psychiatrists in treating ADHD, the literature review examined the conceptual development of neurologically based disorders from their first clinical links at the turn of the twentieth century (Stills, 1902) to the advanced computer scanning technology of today.

The initial identification of a child's learning and behavioural difficulties is most likely to be made by parents, teachers and school special needs coordinators. The DfES Code of Practice (DfES, 2001) gives guidance to schools on the identification and support for children with SEN. The procedures for referring children for assessment by external agencies and professionals are examined in the light of this guidance and from my own experience of working as a school SENCO.

According to OfSTED (2004), 'SENCOs, identified the perceptions of staff as being a major barrier to effective inclusion' (p.29). In this thesis I have examined how teachers and support staff in a London comprehensive school perceived ADHD as a special educational need and what, if any, special intervention or support was put in place for pupils with characteristic behaviours attributed to ADHD or with a formal diagnosis.

The theoretical models used in this thesis suggest a pattern of support for children with SEN as proposed in the DfES Code of Practice (2001). However, subsequent legislation such as the ECM (2003) agenda and, in particular, the Removing Barriers to Achievement initiative have created a 'new ball game' in supporting children with complex difficulties such as Behavioural Social and Emotional Difficulties and ADHD. This thesis examines this process in the light of new legislation and draws upon expert opinion in the identification and diagnosis of a complex phenomenon such as ADHD and, thus seeks to establish whether government inclusion legislation is in fact creating new forms of exclusion for some groups despite initiatives to prevent this from happening. The ECM agenda aims to nurture closer working with schools and specialist services 'to promote children's welfare, to safeguard children

from abuse and neglect, so that children with additional needs can be identified earlier and supported effectively' (DfES 2004: 1). This thesis suggests that for some groups this is not being effectively managed.

The purpose of this research investigation

In order to examine the processes involved in the identification, diagnosis and treatment of ADHD and the educational and medical interventions required to support sufferers, it was necessary for me to identify the following research questions.

- What is the evidence from the literature regarding whether the conceptual development of ADHD has been established as a true neurobiological disorder requiring medical intervention?
- What is the involvement of the special needs department and special educational needs coordinator in schools as 'experts' in supporting children with ADHD?
- How has the reduction in external support services, due to changes in government funding, affected identification and diagnosis?
- Has the often bureaucratic referral system outlined in the governments' Code of Practice for special needs hindered support for children with ADHD?
- Is there a medical justification provided by doctors for prescribing drugs to children in order to treat and control the disorder?

How the study addressed the research questions

In order to answer the first of these research questions it was necessary to examine the literature on the conceptual development of ADHD and whether evidence exists that

establishes it as a true neurobiological disorder requiring medical intervention. A literature search was conducted which examined the development of ADHD from its first clinical 'links' and identification (Stills, 1902) to the advanced neuro-scientific and brain scan technology that establishes the neurological deficits affecting learning and behaviour and which are attributed to the disorder (Goswani, 2004). This establishment of a neurological basis for ADHD also gives justification for the use of medication such as methylphenidate (Ritalin) in its treatment. As well as exploring the scientific and medical technology involved in ADHD research, it was also necessary to examine the views of teachers, GPs, psychologists (clinical and educational), psychiatrists and therapists because they are all involved in the identification, education, medical and therapeutic treatment of ADHD.

The second question was to investigate, through drawing on my own experience and knowledge as a special needs teacher, the operation of the Code of Practice in schools in terms of the involvement of SEN departments and coordinators (DfES, 2001). In order to provide another source of data within the research context, I give a personal account of the processes involved in the identification of a special need from the perspective of the classroom teacher as a practitioner researcher. The wider involvement of the SEN coordinator as 'expert' and the support of the special needs department are also examined in detail. In addition, the DfES Code of Practice was consulted regarding the guidelines it gives for the involvement of SEN departments, external agencies such as the psychological and behaviour support service and the referral of young people to medical, therapeutic and family services.

The third question to be answered was how the reduction of external support services has affected support for children with social, emotional and behavioural difficulties. With the delegation of school budgets, the staffing and resources of external support services have been reduced over the past ten years and now schools have to 'buy-in' their services as and when required. This has put a pressure on schools to deal with problems 'in-house' whenever possible. Therefore the referral of a child for psychological or psychiatric assessment for ADHD is not a decision taken lightly. The guidelines of Code of Practice and the process of referral is bureaucratic and very time consuming, which means it can take up to two years for a child to receive a formal diagnosis of a medical problem or a statutory assessment of a special need. This lengthy time lapse goes against the government ideals of early identification of a special need and therefore appropriate support, creating a further contradiction between government policy and actual practice in the classroom. According to OFSTED, 'specialist teaching approaches were seldom as successful in secondary schools because their learning needs remained unidentified for too long' (OFSTED, 1994: 17). Through interviews and questionnaires, I examined the processes involved in the formal identification and diagnosis of ADHD by paediatricians and clinical psychologists. I also explored the justification by doctors for administering drugs and the alternative views about treatment by therapists and other professionals who work with young people with the disorder.

The fourth question concerned the inclusion of young people with ADHD and other social, emotional and behavioural problems into the mainstream classroom. Lack of understanding, inadequate teacher perception, difficulty with teaching, bureaucratic processes and poor resources and support have led to a large number of disaffected

young people being categorised as having social, emotional and behavioural difficulties, leading to possible exclusion. This group of young people will also include those with a diagnosis of ADHD. This continues to be problematic. According to school inspectors 'the admission of pupils with behavioural difficulties continues to be the hardest test of the inclusion policy' (OFSTED, 2004: 7) Inspectors go on to suggest that 'the proportion of pupils in pupil referral units has risen by 25% between 2001 and 2003' (ibid).

The last question was whether the perception of ADHD and its establishment as a neurologically based disorder can also be affected by psychosocial pressures and environment and the justification, by doctors, for prescribing and using drugs in its treatment.

This phenomenon (ADHD) is a disorder that is also characterised by lack of consensus in terms of its origin (nature/nurture); its mode of treatment; its impact on the child's learning and the quality of education they receive.

This study provides a snapshot of a disorder that is controversial as well as complex. However, the findings echo those in existing literature and provide evidence that supports the wider findings of OfSTED inspection reports regarding the growing numbers of students who are becoming excluded from schools through emotional and behavioural disorders and related conditions such as ADHD. Therefore, although the research undertaken for this report was conducted in the locality of my professional practice, I believe it to be typical of a much wider context and it reflects similar findings nationally.

Definition of terms

Attention Deficit Hyperactivity Disorder (ADHD) is a neurologically based disorder that is psychiatrically defined and has symptoms and characteristic behaviours that range in their severity, can be pervasive across different situations and is genetic in origin (APA, 1994). These characteristic behaviours range from subtle cognitive deficits affecting mental processes and learning to severe impulsivity and hyperactivity that can affect relationships, learning and health. ADHD rarely exists on its own and is often co-morbid (a psychiatric term to describe illnesses and disorders that can co-exist) with a range of other behaviourally defined disorders such as severe mood swings (bipolar disorder), Conduct and Oppositional Defiant Disorders (CD and ODD), Attention Deficit Disorder (ADD) and problems with learning such as reading difficulties (RD) poor memory and attentional problems (Tannock, 1998; Thapar et al, 2001; Rucklidge & Tannock, 2002). Thus ADHD is best viewed as a spectrum disorder with a range of symptoms that can affect social and educational outcomes in similar ways to other neurologically defined disorders such as autism and dyslexia, which can also co-exist with ADHD.

Because of the neurobiological links that ADHD can have with so many other medically defined disorders that affect brain processes and behavioural outcomes, the disorder is difficult to define in singular terms and therefore ADHD is defined and categorised within a broad range of psychiatric, psychological and social terms by a variety of organisations and is included in various diagnostic manuals for diseases and disorders. The American Psychiatric Association (APA) was the first organisation to define and use the term ADHD in their Diagnostic and Statistical Manual of Mental Disorders (DSM, 1980-1994). The disorder has been constantly re-conceptualised by

the APA since 1980 and what we now know as ADHD first appeared in the 1994 DSM IV manual. In 1993 the World Health Organisation (WHO) categorised certain behaviours associated with hyperactivity and attention difficulties and included the term ‘hyperkinetic syndrome’ in their 10th version of the International Classification of Diseases manual (ICD 10, 1993). In Britain, the British Psychological Society (BPS) decided to include ADHD within a broad spectrum of Social, Emotional and Behavioural Difficulties that affect young people: thus S-EBD (later changed to BESD to reflect the impact of behaviour as the primary concern) was born as a category used to describe the disorder, along with other social and emotional difficulties affecting young people. The conceptualisation and classification of ADHD by these significant organisations is an attempt to make sense of a very complex disorder that not only affects the mental, and physical, health of young people but can also progress into adulthood and thus can be life-long.

In the past 100 years or so, the symptoms of ADHD have been medically defined and linked to abnormalities in the frontal lobes of the brain affecting the operation of neurotransmitters, which can be described as chemical messengers, causing difficulties with concentration and impulse control. Advances in medical technology and the development of neurological research and neuroscience have aroused much interest in trying to discover the underlying cause/s of ADHD (Goswani, 2004).

According to Goswani (2004:1), ‘the study of learning unites education and neuroscience’. She goes on to suggest that ‘neuroscience as broadly defined investigates the processes by which the brain learns and remembers, from the molecular and cellular levels right through to brain systems’. Tannock (1998: 66) suggests that ‘the literature on neuroimaging and genetics, in particular, has grown

exponentially' and 'the extant literature is providing preliminary evidence for dysfunction of the frontostriatal networks (which control attention and response organisation). Although no single cause has yet been identified by neuroscientists they have identified anomalies within certain areas of the brain that are thought to affect how the brain processes information and reacts to external stimuli. According to Goswami (2004:1) 'brain cells (or neurons) transmit information via electrical signals, which pass from cell to cell via the synapses, triggering the release of neurotransmitter's (chemical messengers). She goes on to say that 'learning broadly comprises changes in connectivity, either via changes in potentiation at the synaps or via the strengthening or pruning of connections. Successful teaching thus directly affects brain function, by changing connectivity'. Problems arise when there is a faulty connection between the synapses and neurotransmitters. These 'cognitive deficits' are thought to be the underlying cause of a range of problems associated with ADHD that can affect learning, behaviour and relationships in those that suffer with the disorder (Carr, 2002). The identification of 'faults' in neurotransmitter regulation/function is the rationale for the prescribing of Methylphenidate (Ritalin) because this psychostimulant drug helps to regulate the neurotransmitter dysfunction (Carr, 2002). Research by educational psychologists has looked at a range of internal and external stimuli that can either create the circumstances that exacerbate ADHD or can maintain the condition such as the stimuli arising within or caused by families, schools and the environment of the person (BPS, 2000; Cooper & Ideus, 1996).

In the field of education and schools, teachers also view ADHD as a complex and problematic phenomenon. The characteristic behaviours associated with the disorder can cause problems in the classroom both with learning and with conduct. The co-

morbid relationship with other neurological disorders such as autism and dyslexia can make identification of the disorder and subsequent classroom support very difficult for teachers and other educational professionals who work with affected students. Other co-existing disorders that affect student conduct and result in negative behaviours and consequent difficult teacher–student relationships can also add to classroom problems and can lead to the condition being misconceived as solely behavioural. However the behaviours often associated and attributed to the disorder can manifest themselves in very subtle ways that may go unnoticed by the classroom teacher and can possibly lead to disaffection, low self-esteem and lack of progress, a particular problem with girls. ADHD symptoms in girls can manifest themselves differently and tend to affect emotional responses and concentration rather than impulsivity and conduct and therefore can go unnoticed and undetected in the classroom (Cooper 1996; Cooper & Ideus 1996; Dalsgaard et al, 2003). Another problem for teachers is whether ADHD constitutes a special educational need as defined by the Code of Practice (DfES, 2001). In simple terms if a student has a learning difficulty that requires special educational provision then they have special needs as defined by the Code of Practice. In reality, teachers often view ADHD as a medical condition resulting in negative behaviour that is treated with drugs and therefore is often dealt with as a problem with behaviour and conduct rather than learning. Therefore ADHD ‘symptoms’ are often treated differently from the learning needs normally associated with SEN students, which can lead to disaffection and further problems. The inclusion of ADHD within the category of EBD has inadvertently led to the creation of a new group of young people who are increasingly being ‘excluded’ from the mainstream of schools (OFSTED, 2004).

As discussed above, the Warnock Report abandoned the notion that SEN was a 'within-child' problem often used to describe children with special needs and introduced the generic term of 'special educational needs' (SEN). The abandonment of the medical model was designed to assist with the ideals of a policy of inclusion of all children with special needs into a broadly defined group that included those with a range of neurologically defined disorders such as autism, dyslexia and ADHD as well as those with physical disabilities and learning difficulties. However, the inclusion of young people with medical and psychiatrically defined disorders has created a dilemma in schools because teachers often view the identification and diagnosis of these disorders as outside of their expertise and have to rely on the intervention of medical experts and psychologists. Many of these young people will be receiving some form of medication or specialist support from outside agencies that can further alienate teachers from the problem.

The 'inclusion' of children with a range of physical and neuropsychological difficulties including those with behavioural difficulties (EBD) has created a group of students whom are increasingly being 'excluded' from mainstream schools because teachers and schools struggle to cope with them. These young people are deemed to have social, emotional and behavioural difficulties and would include those students suffering with ADHD, Conduct Disorder, Oppositional Defiant Disorder and a range of other social, emotional and educational difficulties that affect learning and relationships (APA, 1994).

Teachers and learning support assistants in mainstream schools are committed to the ideals of including students with special educational needs and endeavour to support

the Code of Practice and its guidance with regard to teaching and supporting SEN students. In practice this generally works well and in the majority of cases children with SEN are supported through a combination of differentiation strategies and additional support in the classroom. However young people with complex medical problems, especially those with neurological conditions affecting brain processes and behaviour, are a particular challenge to teachers because the latter do not have the knowledge, expertise or time to fully understand these complex conditions. Thus, there is an inherent problem because teachers and parents often see these conditions as medical and therefore outside of their responsibility (Norris & Lloyd, 2000; Prior, 1997). This perception by teachers and the view that their role is only part of the solution is because intervention is often necessarily combined with medical and psychological inputs. These additional inputs by professionals outside the classroom would typically involve medication or the involvement of therapists and other quasi-medical specialists. Another key problem for the classroom teacher is related to early identification and the consequent support of a learning difficulty or special need, seen as crucial for educational intervention strategies to be effective. The identification of a special educational need is particularly important in cases in which a learning difficulty is a result of a medical or neurological condition because lack of early identification can lead to the student becoming frustrated and disaffected with education and may lead to difficulties with behaviour and conduct causing 'a crisis that leads to belated action' (OFSTED, 2005: 12). A vicious circle is created because lack of knowledge and expertise about neurologically based conditions, lengthy identification processes and the reliance on external experts and services all serve to exacerbate the problem for the student and the teacher, leading to insufficient support in the classroom. Even after a student has been identified and diagnosed with a

medical problem, teachers still have a problem with lack of training and expertise, the best type of strategies to use and the most effective way of implementing them and supporting students (OFSTED, 2005). Another problem arises for the teacher when some of these 'medical' conditions are being treated with drugs to control certain behaviours such as severe mood swings, hyperactivity and lack of attention and concentration.

Phases of the research

This research project was organised in five phases and concerned the identification of school-age young people deemed to be suffering from the disorder and the way in which they are supported in schools. The phases in this research were used to set ADHD within my own professional context as an educationalist and to examine the impact of the disorder on teaching and learning. A literature review looked at the conceptual development of ADHD from its behavioural roots to today's biological underpinning and the involvement of neuroscience, psychology and sociology used in the diagnosis of the disorder.

1. The purpose of the first phase of this research was to examine the processes involved in the identification of a special need such as ADHD in the classroom and how this often complex educational need is supported by professionals. As I was working as a special educational needs coordinator at the time, I was able to draw on my own professional experience as a source of evidence and comment on the role of teachers and classroom assistants in this process. The role of the SENCO and the impact of the governments' Code of Practice was also examined. An additional final phase of research was added in order to update and add to the existing findings in this thesis. Two SENCOs and a

learning support manager were interviewed at three London comprehensive schools.

2. The second phase looked at how professionals who work in schools' external support services such as Child and Adolescent Mental Health Services (CAMHS) are involved in the identification of childhood disorders and the support of other difficulties that affect young people and their families through counselling, advice and therapy. The research investigated the ways in which doctors, psychologists and therapists view ADHD as a medical/biological disorder and the possible factors involved in the increasing prevalence of the disorder. Questionnaires and interviews conducted with staff at the Child and Adolescent Mental Health Service (CAMHS) centre investigated the processes involved in identifying young people with ADHD and how these centres work alongside schools in supporting students with mental health problems. The attitude of professionals towards the use of drugs in treating the disorder and alternative therapies was also explored.
3. In the third phase of this research I investigated the role of Paediatricians and Psychologists at a Child Development Centre (CDC), who are involved in the identification and diagnosis of a range of childhood disorders, including ADHD. Their role in the process of supporting schools, teachers and other professionals was also explored. A short questionnaire was administered at the centre followed by interviews with a community paediatrician specialising in ADHD and with a clinical psychologist. The interviews with staff investigated the underlying biological cause of ADHD, the process of identification and diagnosis, the use of drugs and alternative treatments and the rationale for prescribing drugs to children based on clinical practice.

4. The fourth phase investigated how teachers and classroom support workers perceived ADHD once it had been identified in the classroom and what levels of support were offered to those children identified as having the disorder. Interviews with teachers and classroom support workers at a London comprehensive school were conducted in order to investigate their perception of what caused ADHD, how it should be treated or managed in the classroom. The perception, by teachers and support staff, of how the disorder manifests itself in the classroom was also examined.
5. The fifth phase of this project investigated how various government initiatives have brought about a policy of inclusion for the majority of young people with disabilities and special educational needs into mainstream schools. The abandonment of the 'medical model' and the introduction of the generic term of Special Educational Needs (SEN) following the 1978 Warnock Report (DES, 1978) has led to the inclusion of students with a wide range of complex neurological conditions such as autism and ADHD who would have previously been educated in special schools. Many of these students, especially those with behavioural difficulties, have been placed within a new category of SEN for students with Social Emotional and Behavioural Difficulties (S-EBD). Unfortunately, many teachers have found themselves at odds with this group of challenging young people and this has led to children in these groups being increasingly excluded from mainstream schools and in some cases placed into special units. This has had a detrimental effect on the government's inclusion targets (OFSTED, 2005).

This thesis contributes to knowledge through the examination of a complex medical phenomenon (ADHD) from an educational practitioner's perspective and the way in which this impacts on teaching, learning and the wider context of inclusion. Through my research I have identified a 'vicious circle' of circumstances that is contrary to the ideals of inclusion for particular groups of children. I am proposing an adopted model of inclusion with recommendations to break through this cycle, for the benefit of the students, the teachers, parents, support workers and external agencies involved in the diagnosis of and support for students with ADHD symptoms.

Summary of Chapter 1

This research reflects my experience as a teacher and researcher of special educational needs in both special and mainstream schools. The research came about through my personal experiences as a SENCO and through working with children who have complex social, emotional and behavioural difficulties. By choosing a case study approach I was able to investigate real people in real situations and reflect on my own practice. A contribution to knowledge was made through the identification of a weakness in the system of referring children to external support agencies in order to identify specific SEN which impact on behaviour, learning and social needs. Five research phases were used to examine the processes of identifying and supporting specific SEN. These were (1) examining the identification of special needs in the classroom; (2) investigating the role of professionals who work in external support services, the role of doctors and psychologists (educational and clinical) in the diagnosis of disorders such as ADHD; (3) the role of psychologists and paediatricians who are involved in diagnosing ADHD; (4) the role of teachers and classroom support assistants in supporting identified pupils and (5) the role of government policies and educational initiatives that have supported or hindered the teaching and learning processes for affected pupils.

Chapter 2: ADHD and Education: The Literature

Attention Deficit Hyperactivity Disorder (ADHD) is a relatively new term that describes a range of behaviours that can affect a person socially and academically. ADHD is a medical term defined by the American Psychiatric Association and is used in the APA Diagnostic and Statistical Manual of Mental Disorders (APA, 1980, 1994). As ADHD is a psychiatrically defined disorder with medical underpinnings it is not surprising that much of the research on the disorder has centred round the functioning of the brain and the way the mind works and processes information (Carr, 2002; Eliez & Riess, 2000; Grodzinsky & Diamond, 1992; Gadow & Nolan, 2002; Goswami, 2004; James & Blair, 2003; Mc Nicholas & Baird, 2000; Rubia et al, 2001; Rucklidge & Tannock, 2002; Tannock, 1998; Thapar et al, 1999; Werry, 1992). It is acknowledged by the APA that other factors can play a part in the maintenance of the disorder and can exacerbate certain actions and behaviours in those considered to have a diagnosis of ADHD. Because the cause of disorder is considered to have a neurological basis, that is, in the way the brain functions, much of the medical research is conducted by specialists such as those who work in the field of neurobiology and neuroscience (Carr, 2002; Goldstein, 2008; Goswami, 2004; James & Blair, 2003; Rucklidge & Tannock, 2002; Tannock, 1998; Trip et al, 2002; Taylor, 2004, 2009; Williams, 2008). These specialist doctors, researchers and scientists use highly technical and advanced equipment that can measure subtle changes in the chemistry of the brain. They also study the genetic implications of characteristics that may be present in sufferers of the disorder. Consequently, the research by medical professionals on ADHD and other neurological conditions has been at the forefront of a wide range of investigations by those who deal with affected people on a daily basis.

From an educational professional's view, the intense medical research associated with ADHD means that the disorder is often seen as outside the control of teachers and more the business of doctors such as psychiatrists and paediatricians. However, the acknowledgement that environmental, educational and psychological factors can exacerbate the condition and consequently its outcomes means that medical and educational professionals must work together for a common good and work towards the best appropriate support and treatment regime (Cooper, 2000, 2008).

ADHD: the role of technology in the identification of symptoms

According to Tannock (1998), in her review of the conceptual and technological advances in cognitive neuroscience and molecular genetics, recent advances in neuro-imaging such as fMIR scanners (functional magnetic resonance imaging) and PET scanners (positron emission tomography) have the potential to identify the underlying pathological causes of Attention Deficit Hyperactivity Disorder (ADHD). This neurobiological research and the establishment of genetic links are at the forefront of the current medical research surrounding both the cause of the disorder and the identification of subtle neurological functions that can affect learning and behaviour (Goswani, 2004).

Neuroscience is a relatively new discipline encompassing neurology, psychology and biology that has been developing over the last 100 years (Goswani, 2004). Some explanation of the medical technologies mentioned in this literature review and how they are used in ADHD research is necessary and will be returned to later. What is beginning to emerge is a new recognition of the complexity of ADHD, both as a biologically defined syndrome and as a complex psychosocial phenomenon that is

attracting much research interest by educationalist and medical practitioners in Britain and across the globe. In 1998 Rosemary Tannock conducted one of the most comprehensive reviews on ADHD. Tannock's review looked at the current research on the advances in cognitive, neurobiological and genetics on ADHD. The review looked at several key areas in ADHD research including the scientific study of ADHD, problems of co-morbidity, advances in neuroimaging, advances in genetic research and family, twin and adoption studies. Tannock's conclusion from the review was that substantial progress had been made in the conceptualisation and development of a theoretical model of ADHD. The research carried out by Tannock would serve as a springboard for future studies on ADHD. Accordingly Tannock (1998) makes the following comment:

Attention Deficit Hyperactivity Disorder (ADHD) is the current label for one of the most prevalent and intensively studied syndromes in child psychiatry, and possibly the most controversial. (Tannock, 1998: 66)

This statement by Tannock, a professor of child psychiatry at the institute of research (Canada) raises a number of important questions about ADHD, a predominantly childhood disorder that can continue into adulthood and is thought to be genetically inherited. These questions include the following: why is the disorder so prevalent? Why is research on the disorder so intensive? Why is the disorder so controversial?

ADHD: Historical and conceptual development

To find answers to these questions it is essential to look at the historical development of our understanding of ADHD and how this developed from Stills' (1902) concepts of 'behaviour inhibition' and 'moral control' to today's conception that it has biological and psychosocial links. Stills (1902) made the first clinical link to the disorder at the beginning of the 20th century. The advances in today's diagnostic

brain scanning technology have further established his biological theories. According to Weiss (see Tannock, 1998: 65)

ADHD is a paradigm for a true biopsychosocial disorder, raising critical questions concerning the relations between genetic, biological, and environmental factors. As a result, it has captured the interest of clinicians and researchers from many different disciplines continuously for three decades.

However, the condition known as Attention Deficit Hyperactivity Disorder is not distinctly identifiable as an illness or as a problem affecting only the young. It is an umbrella term to describe a very complex disorder that crosses the boundaries between education and medicine. There has been considerable debate amongst educationalists and medical practitioners as to the cause of ADHD and in particular whether the underlying causes are a result of 'neurological deficits' and, 'genetics' (Carr, 2002; Comer, 2004; Grodzinsky & Diamond, 1992; James & Blair, 2003; Kewley, 1999; Mercugliano, 1995; Rubia et al, 2001; Raulin, 2003; Tannock, 1998; Thapar et al, 1999; Taylor, 1999).

The British Psychological Society (BPS) views the disorder as a bio-psycho-social phenomenon that has a medical diagnosis provided by the American Psychiatric Association (BPS, 2000; Cooper, 2008). Norwich et al (2002) describe the characteristics of the disorder as follows:

It is characterised by chronic and pervasive (to home and school) problems of inattention, impulsiveness, and/or excessive motor activity which have seriously debilitating effects on individuals' social emotional and educational development, and are sometimes disruptive to the home and /or school environment. Between two and five per cent of British school children are believed to experience this condition. (Norwich et al, 2002: 182)

Attention Deficit Hyperactivity Disorder first appeared in the American Psychiatric Association (APA) in their Diagnostic and Statistical Manual for Mental Disorders (DSM, 1994). The DSM manual and the subsequent manuals produced by the APA

list the characteristic behaviours of ADHD and categorise them into behavioural subtypes. Initially there were two subtypes listed, Attention Deficit Disorder with, or without Hyperactivity (ADDH and ADD). The three subtypes in current use to describe ADHD are Predominantly Inattentive Type, Predominantly Hyperactive-Impulsive Type and Combined Type (DSM-1V, 1994). A major drawback of the DSM classification system is the broadness of the diagnostic categories. This has resulted in a number of other childhood disorders being encompassed within the diagnostic categories. According to Taylor (1994: 6) 'most conditions in medicine do not have a single cause; multifactorial causation is much more common'. However, the DSM and other classification systems have created a major problem for both clinicians and other professionals because it is very difficult to apply 'distinctness' to a range of disorders and this has led to high rates of diagnosis of co-morbidity or co-existing disorders, thus adding to diagnostic confusion and possible misdiagnosis. The problem of related and co-existing disorders in childhood psychiatry is particularly problematic in the diagnosis of ADHD because the disorder rarely exists alone and co-morbidity rates can be as high as 80% (Tannock, 1998). According to Kadesjo & Gillberg (2001):

We concluded that pure ADHD is rare even in a general population sample. Thus, studies reporting on ADHD cases without comorbidity probably refer to highly atypical samples. By and large, such studies cannot inform rational clinical decisions. (Kadesjo & Gillberg, 2001: 487)

ADHD is a conceptual term used by the APA to describe poor sustained attention, impulsiveness, and hyperactivity. However, according to Cooper (1996), there is a 200-year history linking certain behavioural difficulties with physiological origins. G.F. Stills (1902), a British medical doctor, made the first clinical links to behavioural disorders when he used the terms 'volitional inhibition' and 'moral control' to describe excessive motor activity (persistent motor restlessness) in children. Since the

early part of the twentieth century and the first clinical descriptions there have been many different conceptualisations of what we now know as ADHD. According to Tannock (1998: 68), the changes in concepts since that time have identified defects in ‘volitional inhibition’ or ‘moral control’ (1902), minimal brain damage or dysfunction (1940-1960), hyperactivity and poor impulse control (1960s) attention and impulse control (1970s-1980s). Current formulations include poor self-regulation and behavioural inhibition.

Attention Deficit Hyperactivity Disorder is seen as an emerging phenomenon that has evolved over time and in many ways the description of ADHD characteristics has turned full circle. In the early 1900s the behavioural descriptor of ‘persistent motor restlessness’ was being used to describe hyperactive behaviour. For two decades (1940-1960) following on from this early period 1900-1939, the term ‘minimal brain damage’ was used to describe the cause of a range of dysfunctional behaviours (Tannock, 1998). Following further research carried out in the USA on personality disorders, the term of ‘minimal brain damage’ was changed to ‘minimal brain dysfunction’ due to the suggestion that personality changes had a neurological basis. (Anastopoulos et al, see Prior 1997: 16). More recent research suggests that underlying neurological problems/deficits are the cause of ADHD and these are most likely to be genetically inherited. (Comer, 2004; Raulin, 2003; Taylor, 2009)

Unfortunately, Attention Deficit Hyperactivity Disorder is a term often associated with behaviours that are seen as negative and socially unacceptable, such as poor conduct and boisterous hyperactive behaviour, particularly in boys. Some of these behaviours are considered as oppositional and defiant, causing a range of socially

unacceptable problems (Hale et al, 2005). These negative behaviours associated with ADHD may be a result of other disorders that can co-exist with ADHD, thus adding to confusion in its identification (Gadow & Nolan, 2002; Kadesjo & Gillberg, 2001; Hale et al, 2005; McNicholas & Baird, 2000; Peris & Hinshaw, 2003; Thapar et al, 2001). However, these co-existing disorders are not necessarily caused by ADHD and may be distinctly different in terms of diagnosis and outcomes. The term ADHD also covers a range of other behaviours that are not necessarily problematic to society and may not be disruptive to those with whom ADHD sufferers come into contact. These include social immaturity, emotional difficulties, attention difficulties and learning problems (Landrum et al, 2003). Socially, however, the ‘symptoms’ and ‘characteristics’ of ADHD can be a cause for concern where a degree of rule following and good conduct is required, such as in a classroom or social setting (Singh, 2008). In families where ADHD problems do exist, concern is caused due to the child or adult’s interaction and behaviour towards family members or possibly in the workplace. In society generally and in medicine there is concern over the best way to treat any underlying medical problems and co-morbid conditions that may be present such as depression and anxiety (Carr, 2002). Doctors may also resort to the use of powerful psycho-stimulant drugs to control hyperactive behaviour in children or use anti-depressants for adults. According to OFSTED ‘in some SLD and EBD schools up to two thirds of pupils may be on medication’ (OFSTED, 2005: 9) Social stigma can be attached to sufferers for having a special educational need or mental health problem. Educationally, ADHD may cause problems at school with learning difficulties or social interaction, leading to punishment for ‘unacceptable’ behaviour, or may result in school and social exclusion. In the wider community, ADHD can be a concern amongst a range of professionals including doctors, psychologists, therapists,

welfare officers, teachers and police who deal with the behavioural consequences of the disorder and its rising prevalence on a day-to-day basis. According to Carr (2002: 375) 'epidemiological studies of ADHD report overall prevalence rates varying from 1-19 per cent'

ADHD: biological, psychological and social perspectives

The controversy that often surrounds ADHD is in many ways compounded by the many different social and medical theories that are put forward to explain the cause or aetiology of the disorder and how best to treat its symptoms or characteristic behaviours. According to Carr (2002), these theories can be divided into three main categories. First, there are those which focus largely on the role of biological factors in the aetiology (cause) of ADHD (Carr, 2002; Grodzinsky & Diamond, 1992; James & Blair, 2003; Thapar et al, 1999). Second, there are intra-psychoic theories that attempt to explain the syndrome of inattention, over-activity and impulsivity through reference to a central underlying deficit. Third, are those which deal with the role of psychosocial factors in the development and maintenance of the condition (Brandau & Prentice, 2004; Cooper, 2000, 2008; Das & Papadopoulos, 2003; Lovey, 1998; Norwich et al, 2002; Peris & Hinshaw, 2003; Prior, 1997; Sava, 2000; Vulliamy & Webb, 2003). Carr (2002) lists the following theories and hypothesis relating to the disorder: Aetiological theories, Biological theories, Genetic hypothesis, Organic deficit theory, Neurotransmitter dysregulation hypothesis, Allergy hypothesis, Under-arousal hypothesis, Intra-psychoic theories, Inattention hypothesis, Hyperactivity hypothesis, Impulsivity hypothesis, Rule-following deficit hypothesis and Systems theory. (Carr, 2002: 377-382). Because of the many different theories and

controversial social issues that surround the syndrome of ADHD, psychologists have characterised the disorder as being part of a range of social, emotional and behavioural difficulties (SEBD) that affect young people and adolescents. As well as the many different and sometimes controversial theories about the cause of ADHD, there are also factors that are thought to predispose the condition (genetic/biological) or maintain the condition such as poorly developed speech and developmental delay. Probably the most controversial treatment for ADHD, especially in children, is the use of powerful psycho-stimulant drugs such as Methylphenidate (Ritalin) and the concern surrounding its use and sometimes misuse by clinicians (Norris & Lloyd, 2000, 2006; Kirstjanson, 2009; Rey & Sawyer, 2003). The controversy surrounding the use of drugs in the treatment of ADHD is comprehensive and will be returned to later in this thesis.

Although the biological/genetic links to certain ADHD behaviours have been identified and established (Rutter et al, 2001), the disorder can also occur without any history of brain abnormality and in some cases without hyperactivity. In their report on *ADHD Guidelines and principles for successful multi-agency working*, the British Psychological Society (BPS, 2000), hold the view that:

ADHD is a multi-faceted condition. Ill informed and unhelpful ways of portraying ADHD, for example, as a disorder determined solely by either biology or environment should be challenged; biological, psychological, social and cultural aspects should be considered in all cases (BPS, 2000: 18)

This psychological viewpoint put forward by the BPS and other organisations such as the National Institute for Clinical Excellence (NICE) is what establishes ADHD as a bio-psycho-social phenomenon that is multi-faceted in nature and thus requires a multi-disciplinary approach to its assessment and intervention. According to Cooper

(2000: 3), 'the underlying message of the report is simple: in that the needs of children with ADHD go beyond what can be met by a single professional group'. In a more recent article Cooper (2008) comments:

In my view, failure to engage constructively with the biopsychosocial perspective will inhibit the development of effective educational provision, to the detriment not only of children with ADHD but all children (Cooper, 2008 p.471).

Psychologists are mainly concerned with the social and behavioural manifestations of disorders and how these can impact on learning and the relationships with others.

Psychologists are also mindful of the underlying biological causes of ADHD.

According to Prior (1997: 15), 'educational psychologists apply psychological knowledge so as to attempt to understand and explain human behaviour in order to facilitate positive change where needed'.

The difficulties associated with ADHD are often evident from an early age and are developmental. The development of ADHD starts from early childhood and can progress through to adulthood where between 30 to 50 per cent of adolescents carry the disorder into adulthood. (BPS, 2000; Cooper, 2000; Carr 2002) According to the BPS (2000), the characteristic behaviours of the disorder from an early age can be identified as:

Persistently failing to conform. At school the child may appear to be distractible and unable to persist with learning and play tasks. Short-term memory problems will begin to be academically debilitating. The child will show lack of social skills, be unable to engage in group work or co-operative play or simply show lack of interest in social interaction. Associated behaviours such as inability to sustain attention and lack of social skills may contravene classroom rules leading to disciplinary action. As children progress into adolescence these problems may become more compounded leading to further failure and negative experiences. (BPS, 2000: 26)

Children with ADHD are also disadvantaged by certain educational approaches to the condition thus, according to the BPS (2000):

The narrowing of the curriculum in the secondary school towards an emphasis on abstract and analytical learning activities makes schooling an increasingly aversive experience for many children with ADHD. (BPS, 2000: 27)

Psychologists do not dismiss the neurological basis of ADHD. They do, however, suggest a range of non-pharmacological interventions such as behaviour modification. Psychologists also advocate psychodynamic/family and individual therapy approaches before the use of medication but do concede that these interventions may need to be used in conjunction with drugs (Cooper, 2000, 2008). A recent NICE report on the use of drugs in the treatment of ADHD states that Methylphenidate (MPH) is 'recommended for use as part of a comprehensive treatment programme for children with a diagnosis of severe ADHD' (NICE, 2000: 3). According to Cooper (2000):

The strong implications of this is that the less severe forms of ADHD are likely to require interventions that focus on the psychology of the child and ecology surrounding the child (such as cognitive-behavioural therapy, psychotherapy, family interventions and educational interventions) rather than on the child's neurology. (Cooper, 2000: 3)

A key consideration and concern for psychologists is the perception of ADHD as a medical/behavioural disorder and, consequently its misconception by children, adults and professionals. The way ADHD is perceived by others is not only essential for its identification or diagnosis but, more crucially, how this affects the way young people with the disorder are viewed and treated by others. According to Cooper (1998):

The socio-cultural orientation... focuses on the ADHD as a social construct, and argues that the problems associated with ADHD are not so much located within the individual as in problematic aspects of the social context or culture inhabited by the individual.... (Cooper, 1998: 69)

Maras, Redmayne, Hall, Braithwaite and Prior (1997) propose 'that a growing amount of folklore is inherent in common perceptions of ADHD and suggest that perceptions are directly related to professional practice' (p1). Maras (1998) posits four key

psychological perspectives on ADHD. These are: psychobiological, cognitive, social and societal. These can be simplified into models: the medical model (medical/biological) the cognitive psychological, (behavioural/psychological), the psychosocial model (social/psychological), and a combined social, psychological and biological model (bio-psycho-social). The model that a professional adopts and believes will largely depend on the background of that professional and their ideological position.

An example of this can be found in a study by Garret (2000) on the attitude of American psychologists and psychiatrists towards the psychosocial and medical models of attention deficit hyperactivity disorder. Garret found that psychologists as a group (n93) favour the ADHD psychosocial model whereas psychiatrists (n88) rated the medical and psychosocial models equally. She also discovered that both humanistic psychologists and psychiatrists and reductionistic (*sic*) psychologists and psychiatrists favoured the medical model aetiology and psychosocial treatment dimensions. Reductionistic psychiatrists rated a higher endorsement of the medical model aetiology, and a lower endorsement of the psychosocial treatment compared to other practitioners. In conclusion, she found that the contradictory positions to which the practitioners subscribe may be adversely influencing the therapeutic relationship and, perhaps, hindering the progress of treatment for children diagnosed as having ADHD.

In Britain, however, educational psychologists as a group have adopted a bio-psycho-social perspective to reflect the interactions between biological, psychological and social forces (Brandau & Pretis, 2003). Educational psychologists are the

professionals who have most contact with schools and teaching professionals. The DfES Code of Practice (DfES, 2001), by contrast, places the onus for the identification of a wide range of classroom learning difficulties on teachers and Special Educational Needs Co-ordinators (SENCOs).

However, in my own experience as a teacher of special needs, when a child presents with a more complex learning or behavioural need such as conduct disorder or suspected ADHD, the SENCO will follow the guidelines of the DfES Code of Practice (DfES, 2001) and will usually make a referral to an educational psychologist for further assessment. Educational psychologists specialise in the educational and social factors that affect behaviour and learning. As mentioned earlier, they also take into account the possibility of underlying biological factors such as the existence of a neurological dysfunction. A number of defined special educational needs have a neurological basis and these would typically be disorders such as autism or those on the autistic spectrum (Aspergers syndrome), specific learning difficulties (dyslexia and dyspraxia) and ADHD. Educational psychologists look for 'within-child' factors that might contribute to a disorder such as temperament and other emotional difficulties but will also look at factors that are outside the child's control such as school, curriculum, teaching and teachers, environment and family background (Norwich et al, 2002; Landrum et al, 2003). Unless a neurologically based disorder has already been diagnosed, further assessment by a psychiatrist or paediatrician will be necessary to establish the presence of a medical condition.

During this investigation I found, at this stage of assessment, the child is likely to come across clinical psychologists. Clinical psychologists, as the name implies, work

alongside doctors, psychiatrists and paediatricians and are found in hospitals and Child Development Centres (CDC) and Child and Adolescent Mental Health Services (CAMHS) clinics. Clinical psychologists specialise in psychobiological problems, that is, problems caused by either an underlying medical condition or psychiatric condition that affects the psychology of the child and subsequent behaviour.

A problem sometimes exists in the perception of the ADHD syndrome and whether it exists or not. This is a widespread problem for all those professionals who come into contact with young people or adults deemed to be suffering from this 'disorder'. As well as the problematic conflicts in perceptions by professionals about the cause and nature of ADHD, there is also the problem of children's own perceptions of what constitutes ADHD. Cooper (1998: 48), commenting on pupils' perceptions of ADHD, notes thus, 'of particular concern, however, are recurring inaccuracies in pupils' perceptions of the nature of ADHD as a solely biologically determined phenomenon'. Unfortunately this view of ADHD as being solely biologically determined is often shared by teachers and other professionals who work with children. In a study by Maras (1997: 3) on teacher perceptions, issues and implications, she found that 'most respondents attributed a biological cause to ADHD'. She goes on to say that 'many related the cause to neurological damage and frontal lobe dysfunction suggesting that many had read recent literature on ADHD'.

This 'accepted' perception by teaching professionals and others is seen as a key concern for psychologists because, if teachers view ADHD as a solely biological phenomenon, they may also view the disorder as not being their problem and

therefore may reject non-pharmacological solutions to its treatment such as classroom teaching strategies or behaviour modification in supporting students with ADHD.

As well as the perception by teachers, and other professionals who work with children, of the biological cause of ADHD, there are further implications involved in this situation regarding the views of some parents towards affected children. Many parents hold the view that ADHD is a medical condition that can be 'cured' by drugs.

According to Reid and Magg (1997):

We have seen that, for many parents of children diagnosed with ADHD, the diagnosis with its medical implications comes as something of a relief-first, because they have located the 'cause' of their child's distress, and secondly, because they, as parents, are not to blame. (see Norris & Lloyd, 2000: 132)

This problem of parents and teachers viewing ADHD as a solely medical condition that is, or can only be, treated with drugs is worrying and will be commented on in more detail later in this thesis.

Maras et al (1997) found that the perception of professionals who work directly with children such as teachers and support workers (classroom assistants) was that they found it easier to define ADHD over other forms of emotional and behavioural difficulties (EBD). Definitions tended to reflect the descriptive nature of ADHD, such as those found in the American DSM and ICD manuals. These findings echo those of the author of this study in that, during interviews conducted with teaching and support staff at a London comprehensive school, common themes and explanations emerged amongst staff in the description of ADHD and reasons for its cause. Descriptions given by staff of the characteristic behaviours of ADHD closely resembled those of both the American DSM manual and the ICD manual of mental disorders. All the staff

members who were interviewed in this particular research phase highlighted hyperactivity, lack of attention and impulsivity as characteristic behaviours of ADHD. Behaviours relating to the ability of pupils to stay on task and difficulties affecting attention and concentration were also highlighted as problematic. Thus, comments by teaching staff and support workers included: ‘avoids work and is easily distracted’, ‘has a short attention span’, ‘tend to be easily distracted’, ‘can’t stay on task’, ‘not attentive’, and ‘lack of focus’. These examples were typically commented upon.

Teachers, parents and other professionals’ perceptions of the underlying causes of ADHD and its manifestations are crucial because this affects not only the way we respond to student needs, but also affects the strategies adopted to support vulnerable young people. Maras et al (1997) found that the perception of teachers varied between types of school and between the expertise and experience of teachers. Maras found that primary teachers from grant maintained schools (GM) provided proportionally fewer comments about ADHD than other groups and tended to focus on emotion. GM secondary school teachers provided proportionally more comments than other teachers and tended to focus on behaviour rather than emotion. She also found teachers in GM schools reported significantly more pupils ‘with’ ADHD than did teachers in locally managed (LM) schools (Maras et al: 2). In an article cited by Maras (see Laslett, 1998: 79) on teachers’ perceptions of students labelled as having emotional and behavioural difficulties, Laslett found that ‘many factors may influence teachers’ perceptions of what constitutes ‘problem behaviour’ including their personal characteristics, school experience and classroom management techniques’. Maras (1998), commenting on a study by Safran and Safran (see Laslett, 1998: 79), cited an assessment of ‘regular’ vs. special needs teachers:

‘The authors assessed... ‘regular’ vs. special needs teachers’ ratings of severity, tolerance, manageability and contagion factors in relation to a target child. The authors found that ‘regular’ teachers were less tolerant and more severe judges of behaviour, suggesting that what a teacher is used to may determine their subsequent interpretation of ‘difficult’ behaviour. Teachers more used to ‘disruptive’ behaviour, may accept and tolerate behaviour that may be rejected or labelled ‘difficult’ in a different context or by a different teacher

Safran and Safran (see Laslett, 1998: 79)

The perception of teachers and other professionals about what causes and constitutes ‘problem behaviour’, ADHD or any other special need is something that impacts on professional practice. Whether that special need is a result of ‘within-child’ factors, biology or environment, perception will play an important part in the educational and social outcomes of ‘identified’ or ‘diagnosed’ students with a range of social and educational special needs and, consequently, how they will be supported in schools (Rush, 2008). Another crucial factor that has to be considered when dealing with any socially or educationally disadvantaged group is the way in which perception affects our own attitude and thinking towards these groups, particularly in the case of ADHD and other disorders that constitute a special educational need, and the subsequent, sometimes subconscious, negativity or misconceptions that this can cause.

Other perceptual problems emerge with sex stereotyping and the relationship of ADHD to other disorders, such as those affecting conduct. Rutter et al (1994: 3), commenting on diagnostic classifications, cautions that ‘there is a tendency to assume that psychiatric classifications must imply the existence of disease entities and that there is some ‘natural’ ‘correct’ scheme waiting to be discovered’. Naturally there is a need to classify illnesses for diagnostic purposes, but this should also be extended to other factors such as psychological disturbance, personality characteristics, adaptive functioning and psychosocial functions and situations. The Diagnostic and Statistical

Manual of Mental disorders (DSM1V 1994) and International Classification of Diseases (ICD 10, 1993) manuals both have a high degree of overlap that may reflect inadequate conceptualisation of disorders such as ADHD. Werry (1992: 472) comments 'It follows that...if the menu is long and the necessary symptoms few, children receiving the same diagnosis may have very different clinical pictures'. The problems associated with multiple diagnosis and mixed disorders is one of the key problems in both the classification and the identification of ADHD as a heterogeneous disorder unclouded by its relationship to other disorders such as conduct disorder (CD) or oppositional defiant disorder (ODD).

The number of boys diagnosed with ADHD outnumbers girls and this is thought to be a result of several key factors. Firstly, boys exhibit behaviours differently from girls and are more likely to show aggression, be easily distracted and be seen as disruptive. Maras (1998: 79) found that 'the gender of a child has been shown to correlate with teachers' expectations about the acceptability (or not) of certain, particularly aggressive, behaviours'. She also found that 'teachers and other professionals may not 'notice' or refer behaviour of a low magnitude, which is often perceived as more typical of girls'. Therefore, apart from any inherent biological disposition for these behaviours, there is also the problem of the way adults and institutions perceive these behaviours as problematic (Owens et al 2009). One of the initial methods of diagnosis used in schools is the use of behavioural checklists such as the Achenbach' or Conners' rating scale (Conners, 1987). Again, boys exhibiting boisterous and 'boyish' behaviours similar to those that can found in these checklists, or behaviours meeting the diagnostic criteria used in both the DSM and ICD manuals, are more likely to be targeted as a problem. Perception of what constitutes negative behaviour can also be a

problem for girls as well as boys and can greatly affect the prevalence rates of ADHD. Prior (1997: 18) found ‘there may be widely differing perceptions as to when behavioural traits may be deemed to have become dysfunctional’. This statement by Prior supports the view of Maras (1998) on teacher perception and tolerance differences between mainstream classroom teachers and teachers who work in special schools.

Since Stills (1902) began to suggest that ‘certain behaviours in children were linked to biology’ there have been many theories surrounding the underlying cause of what we now know as Attention Deficit Hyperactivity Disorder. As discussed above, the early research on the disorder suggested that ADHD was the result of brain damage from birth or a result of disease. Even then, the probable cause of the brain damage was not clear to researchers and many theories were being suggested to explain the underlying cause/s of ADHD. Mercugliano (see Batshaw & Perret, 1995: 391) reviewed some of the theories to explain the cause of brain damage and these include: prenatal exposure to lead; excessive alcohol; cocaine abuse; premature birth and low birth weight; brain infections; inborn errors of metabolism; sex chromosome abnormality; Turner and fragile x syndrome. However, ADHD can exist without any history of brain damage or birth trauma, which further complicates the brain damage theory. Other brain damage theories suggest that structural neurological deficit is caused by the prenatal intrauterine environment (Carr, 2004). According to Prior (1997), the outbreak of the encephalitis disease was thought to have contributed to birth defects and brain damage, leading to personality defects. The various theories surrounding the possible cause of personality problems, attention difficulties and hyperactivity led the American Psychiatric Association to establish a diagnostic category for ADHD as

outlined in chapter one. The inclusion of ADHD in the Diagnostic and Statistical Manual of Mental Disorders (APA, DSM 1980-1994) was a landmark in establishing ADHD as a recognised disorder. However the DSM manual and the subsequent World Health Organisation manual both use behavioural descriptors in the diagnosis of ADHD and this has led to the disorder to be identified and viewed as causing problem behaviours such as aggression and hyperactivity but ignoring the ‘less noticeable’ problems associated with emotion and other psychosocial functions. It is the use of behavioural descriptors that has caused a number of problems in the identification of ADHD, particularly with the perception that the disorder results in poor behaviour and learning difficulties and the predominance of boys being identified as having ADHD (Hale et al, 2005; Dalsgaard et al, 2002).

Volitional inhibition, moral control, persistent motor restlessness, minimal brain damage, minimal brain dysfunction, neurological deficit, hyperkinetic disorder, attention deficit disorder and hyperactive syndrome are just some of the terms that have been used to describe what is now known as Attention Deficit Hyperactivity Disorder (Stills, 1904; Tannock, 1998; APA, 1994; WHO, 1993). As summarised in chapter one, In 1998 Rosemary Tannock, a Canadian professor of child psychiatry, carried out one of the most comprehensive reviews yet on the advances in Cognitive, Neurobiological, and Genetic Research on ADHD. Tannock (1998) found in her review that:

A systematic review of the literature revealed a marked increase in the number of articles addressing cognitive and genetic factors, brain structure and function, and the significance of comorbidity, reflecting a shift from description and validation of ADHD to a focus on its mechanisms, etiology, and pathogenesis. (Tannock, 1998: 65-66)

Tannock also commented that the literature on neuroimaging and especially genetic studies had grown exponentially during that decade. The biological dimension of ADHD highlighted in Tannock's (1998) review is still at the forefront of research on causative factors for ADHD, but more recent neuro-scientific studies have focused on how these biological/neurological dysfunctions affect learning. However, Carr (2002) has shown that although many other theories still exist on the possible cause of the disorder, it is still the biological theories that dominate thus, according to Carr (2002):

Hypotheses about the role of genetic factors, structural brain abnormalities, neurotransmitter dysregulation, dietary factors and underarousal have guided much research in the aetiology of ADHD. (Carr, 2002: 376)

The exact causes of ADHD are unknown, however research has shown there is often a genetic component to attention and hyperactive disorders (Biederman, Faraone, Keenan 1990; Carr, 2002; Goodman, 1989; Raskin, Shaywitz and Shaywitz, 1994; Rutter et al, 2001; Tannock, 1998; Taylor, 2009) According to Raskin et al, (see Batshaw & Perret, 1995: 392), several areas of the brain are involved in the control of attention, including the frontal lobes of the cortex and the reticular activating system/locus ceruleus. The frontal lobe of the brain is important in planning, organisation and feelings. The stimulation of these areas require chemicals called neurotransmitters that act as chemical messengers between brain cells (Mercugliano, 1995). Research by Shaywitz and Shaywitz (see Batshaw & Perret, 1995: 392) suggests that children with ADHD have neurotransmitter abnormalities. This theory underlies the rationale for using stimulant medications to treat ADHD, since these drugs increase the activity of neurotransmitters in certain areas of the brain. The neurotransmitter dysregulation hypothesis is the most popular biological explanation for ADHD, particularly for symptoms of inattention and hyperactivity (Carr, 2002; Grodzinski & Diamond, 1992) Research carried out by Mc Cracken (see Carr, 2002:

377) posits that dysregulation of the dopamine system in the ventral segmental areas of the brain and noradrenaline and adrenaline in the locus coeruleus may be present in ADHD, and it is probably these systems that are affected by drug treatment. It is also thought that these brain abnormalities can be genetically inherited. According to Tannock (1998):

The extant literature is providing preliminary evidence for dysfunction of the frontostriatal networks (which control attention and response and response organisation) that may be of a genetic origin (Tannock, 1998: 66).

Barkley (see Tannock, 1998: 68) reinforced the literature at that time on the phenomenon and suggested that:

These findings are generally consistent with current models of ADHD that are rooted in biological paradigms and emphasise neurobiological, neuroanatomical and genetic mechanisms as contributing factors to the behavioural characteristics.

Genetic theories also suggest that a predisposition to hyperactivity is inherited by children who develop ADHD (Carr, 2002; Rubia et al, 2001; Tannock, 1998; Thapar et al, 1999) According to Tannock (1998):

Twin and adoption studies substantiate and extend the evidence from family studies by indicating the heritability of ADHD and its behavioural symptoms, across both categorical and dimensional conceptualisations of the condition. The high heritability estimates for ADHD and component systems imply a very strong genetic contribution to ADHD and component symptoms, which increases the chance of finding a gene of major effect for ADHD if one exists. (Tannock, 1998: 87)

The diagnostic markers for the disorder are still viewed in behavioural terminology such as 'poor sustained attention', 'impulsivity' and 'hyperactivity' by both the American Psychiatric Association (APA, 1994) and the World Health Organisation (ICD, 1993). It is the conceptual view of the disorder's development that is seen as different and much of the earlier research on the disorder tried to identify the disorder as distinct rather than a cluster of unrelated symptoms. However when two or more psychiatric diagnoses co-exist, this is termed as a 'psychiatric comorbidity' and was

first used as a classification by Feinstein (1970). The view of Tannock (1998) is that the identification of ADHD is based on clusters of symptoms being present and the significance of other co-morbid disorders.

According to Tannock (1998: 67), 'between 50 and 80 per cent of children with ADHD meet the diagnostic criteria for other disorders'. Tannock (ibid) cites the most frequently observed as: disruptive behaviour disorders 40-90 per cent, mood disorders 15-20 per cent, anxiety disorders 25 per cent, and specific learning disorders 20 per cent. What is not known, however, is which of these clusters of disorders are specifically linked to ADHD: 'few studies specify whether the figures reflect comorbidity between ADHD and one other disorder independent of or in conjunction with other comorbid disorders' (Tannock, 1998: 67). Although the co-morbidity rates identified between ADHD and other disorders differ between researchers, and are dependent on the diagnostic criteria used, it has been established that ADHD rarely exists on its own, thus further complicating the identification and treatment of ADHD (Carr, 2002; Kewley, 1999; Kadesjo & Gillberg, 2001; Mc Nicholas & Baird, 2000; Peris & Hinshaw, 2003; Sava, 2000; Taylor, 1997, 2009; Thapar et al, 2001)

Much of the earlier research on ADHD and its relationship with other disorders has centred round behaviours related mainly to conduct, for example, Conduct Disorder and Oppositional Defiant Disorder (Gadow & Nolan, 2002). However, more recent research has been looking at a range of other disorders that focus on an underlying psychological cause as well as biology and these include: Attachment Insecurity (Clarke et al, 2002) Academic achievement and progress (Merrell & Tymms, 2001;

Carr, 2002; Brandau & Pretis, 2004) Expressed Emotion (Peris & Hinshaw, 2003), and Bipolar Disorder (McNicholas & Baird, 2000)

Clarke et al (2002: 181) found that the 'early parent-child relationship serves as the foundation for the emergence of self-regulation skills'. This initial dependence on caregivers and the subsequent emotional security arising from it is seen as crucial for the child's psychological make-up. Clarke (ibid) posits that individuals who are insecurely attached are thought to be 'more vulnerable to problems with affective and behavioural regulation'. Deficits in self-regulation, including impulse control and inhibition are deficits related to the ADHD syndrome. According to Clark (2002) research indicates that attachment security has a positive effect on the development of specific areas of competence in which children with ADHD experience difficulties. A study on ADHD symptoms and their impact on academic achievement by Merrell & Tymms (2001) found that children who have been formally diagnosed as having ADHD frequently achieved lower grades than their peers. The study examined the level of achievement and the amount of progress made in mathematics and reading. The study covered the period between the start of formal education, a year later and at the end of the key stage. However, when all factors were taken into account such as age, sex and ability, it was found that the most significant factor affecting underachievement, for example, in maths and reading, was difficulties with inattention and its affect on achievement and not necessarily the academic ability of the child. Merrell & Tymms (2002) conclude their study thus:

A valuable finding of this study has been the evidence to suggest that, after considering ability, the underachievement of children meeting a high number of criteria relating to the Combined and Predominantly Inattentive subtypes of ADHD would seem to be a consequence of their behaviour and not learning difficulties. (Merrell & Tymms, 2002: 54)

A study by Peris & Hinshaw (2003) on family dynamics and girls with ADHD found that patterns of family interaction and family influence have consequences for the symptoms of ADHD. The research investigated the relationship between parental expressed emotion and the symptoms of ADHD. The study discovered that high levels of expressed emotion were associated with both ADHD and aggression. The researchers found that although there was little evidence that parenting practices were the ultimate cause of ADHD, there was a consistent pattern of results that emerged with regard to the manner in which family factors influence aggressive symptoms associated with the disorder and co-morbid disruptive behaviour patterns. The research also discovered that symptoms of inattention amongst girls were equally as challenging to parents as hyperactive/impulsive symptoms.

McNicholas (2000) suggests that bipolar disorder is characterised by repeated disturbances in mood and activity level. In adults, these moods can be described as 'manic' or 'hypomanic' and therefore, moods can swing from an elated high activity state to a depressed mood low activity state. The relative mood swings are considered to be episodic and, in adults, can last from a few hours to a week or more. In childhood and adolescence, however, the symptoms associated with bipolar disorder present differently. There is recognition that the condition may present more with irritability or depression with associated aggression and hyperactivity (Mc Nicholas & Baird, 2000). The diagnosis of bipolar disorder is made using the criteria found in the American DSMIV manual and it shares many similarities with ADHD and other co-morbid conditions. According to McNicholas and Baird (2000):

The other diagnostic difficulty in pre-pubertal children is the fact that early-onset bipolar disorder shares symptoms with a number of other conditions and may be co-morbid with other disorders including attention deficit

hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), conduct disorder (CD), anxiety, depressive disorders and learning disabilities.

(McNicholas & Baird, 2000: 596)

The relationship of ADHD and other co-existing disorders have encouraged researchers to look at the biology of brain functioning and genetic links to establish the aetiology or cause of ADHD and a range of other disorders. These neurobiological and genetic studies are highly scientific and the most commonly used techniques in ADHD research focus on brain structure and function (neuroimaging). The most modern scanning machines called Magnetic Resonance Imaging (MRI) and Functional Magnetic Resonance Imaging scanners (fMRI) can electronically 'slice' the brain into very small sections and can identify subtle changes in the brain's functioning. They can also detect the smallest changes in stimuli. The types of scanners used also include those that focus on brain structure and anatomy such as the positron emission tomography scanner (PET), the computerised transaxial tomography scanner (CT), the functional magnetic resonance imaging scanner (fMRI), and those that focus on brain metabolism and regional change in brain activity such as the single photon emission computerised tomography (SPECT) scanner. According to Goswani (2004):

Neuroimaging studies are based on the assumption that any cognitive task makes specific demands on the brain, which will be met by changes in neural activity. These changes in activity affect local blood flow, which can be measured either directly (PET) or indirectly (fMRI). Dynamic interactions among mental processes can be measured by ERPs (event related potential)

(Goswani, 2004: 5)

As well as establishing the presence of certain biological functions associated with ADHD, and the ways in which these functions of the brain affect learning, neuroscientists have developed various tests to investigate specific impairments in children with disorders such as ADHD and have concentrated round the frontal lobe region of the brain. According to Grodzinski and Diamond (1992: 428):

‘Neuroimaging studies have provided more direct evidence of anomalous frontal lobe function in ADHD children compared with controls’. This has led scientists to develop a variety of tests that measure the way the brain functions when carrying out tasks.

These neuropsychological tasks are used in conjunction with brain impulse measuring scanners, such as fMRI scanners, to measure executive functioning in children. They include such tests as the Maudsley Attention and Response Suppression (MARS) task battery, designed to measure impulsivity in its different manifestations of motor control, including response inhibition, motor timing and sensorimotor coordination. (Rubia et al, 2001). In many of these executive functioning tests, children with ADHD show impairment when compared to control groups. These tests are designed to go further than simply showing impairment in function: they are designed to show specific impairments that may be related to ADHD. Thus, Rubia et al (2001: 141) found that children with a refined phenotype of ADHD were impaired, however those impairments were specific to the more demanding inhibition tasks requiring inhibition of discrete motor responses and ‘were not due to generalised impairments in the interruption of automatic activities nor motor timing’.

The relationship between faulty cognitive functioning and learning has important implications for teachers and researchers. Thus, considerable research is being carried out that links neurological disorder to a wide range of learning difficulties.

Increasingly, researchers and neuroscientists are devising cognitive tests to demonstrate the relationship between anomalies in brain function, executive functioning and possible links to ADHD, particularly behavioural inhibition

(Laurence, 2008). These tests have important implications for teachers and the way in which the curriculum is organised in devising the best way of enabling children with these difficulties to access learning.

According to Goswani (2004):

The tools of cognitive neuroscience offer various possibilities to education, including the early diagnosis of special educational needs, the monitoring and comparison of the effects of different kinds of educational input on learning, and an increased understanding of individual differences in learning and the best ways to suit input to the learner. (Goswani, 2004: 6)

An example of how these neurological tests can be used for educational purposes can be found in a recent study by Rucklidge & Tannock (2002). Their research found there was a substantial overlap between an ADHD group and a control group in reading difficulties. The study set out to investigate the relationship between reading disability and the deficits found in ADHD. The researchers used a group with a diagnosis of ADHD and a non ADHD group as a control. In a variety of executive functioning tests, they found that the ADHD group showed deficits in processing speed, naming of objects, poor behavioural inhibition and greater variability in reaction time and processing speed. These deficits were seen to be the best predictors of hyperactive/impulsive ADHD symptoms. The study set out to find methods of identifying and measuring specific deficits associated with ADHD. Thus Rucklidge and Tannock (2003) concluded that:

Currently clinical practice dictates that the best measure that we currently have is an interview reviewing the ADHD symptoms. Given the problems in this method of diagnosis, there is a great need to identify reliable and valid laboratory measures of ADHD. (Rucklidge & Tannock, 2003: 1000)

The relationship of other disorders to the ADHD syndrome (Co-morbidity)

As indicated earlier in this thesis, the co-morbid relationship between a whole range of disorders that can be found in children and adults is a major problem for

diagnosticians across all fields of medicine and education. Neurobiological, developmental and psychosocial disorders such as ADHD, Autism, Dyslexia, Conduct Disorder and a range of other behavioural medically defined disorders rarely exist on their own. As reported above, according to Tannock (1998), up to 80 per cent of children with ADHD also meet diagnostic criteria for other disorders. According to Mc Nicholas & Baird (2000: 596), 'Rates of reported co-morbidity of ADHD range from 57 to 98 per cent in bipolar patients'. McNicholas (2000: 598) also cautions that 'the presence of co-morbidity may delineate homogenous subgroups with different aetiological and modifying risk factors, different treatment responses and outcomes'. This confusion over the distinctness of a variety of disorders found in children and adults is a major problem for diagnosis and consequent treatment by clinicians.

Confusion over the distinctness, or not, of a disorder is not helped by the extensive range of symptoms and characteristics that can be found in both the DSM and ICD manuals and which are used in ADHD diagnosis. Tannock (1998: 67) also found that ADHD had a co-morbid relationship with both internalising and developmental learning disorders. These include: mood disorders (15-20%), anxiety disorders (25%) and specific learning disabilities (20%). However she goes on to caution that 'few studies specify whether the figures reflect co-morbidity between ADHD and one other disorder independent of or in conjunction with other comorbid diagnosis'. An example of this would be anxiety and conduct disorder or ADHD and reading disorder. A further problem arises in the diagnosis of different disorders and whether they are related to each other and their impact on learning. Each disorder is thought to have different cognitive effects on learning outcomes and this can have consequences for educational programmes such as those for reading and mathematics. Accordingly,

in a study by Rucklidge and Tannock (2002) on the relationship between ADHD, reading difficulties and gender they suggested that:

Certainly, the finding that RD and ADHD are associated with different cognitive deficits provides support for the external validity of the disorders; however, establishing that a specific deficit is primary and unique to ADHD or RD requires evidence that the deficit cannot be explained by comorbid problems. (Rucklidge & Tannock, 2003: 989)

There has been a shift in recent years between the literature on the biological causes of Attention Deficit Hyperactivity Disorder and that on how the presence of a neurological dysfunction affects learning. This relationship between neurologically based disorders, such as dyslexia, autism and ADHD and cognitive deficits in learning is important for all those involved with education and child development. The role that neuro-imaging studies, and the subsequent development of cognitive tests, play in the understanding of the way the brain functions and how these functions affect learning is essential for the development of appropriate curricula for these students. A key advantage of the tests being used and developed from neuroscience studies is the distinguishing of behaviours unique to ADHD and those that may be related to other disorders, thus helping to eliminate diagnostic confusion. The tests such as those carried out by Rucklidge et al (2002) looked for learning difficulties that were related to core deficits specific to ADHD, such as behavioural inhibition, and related these deficits to problems with learning to read. The MARS tests carried out by Rubia et al (2001) also found specific deficits in motor response inhibition caused by dysfunction of the frontostriatal brain regions. However, it should be noted that neuropsychological profiles derived from tests are not always conclusive and do not identify ADHD per se. What these tests do identify is learning difficulties that are related to some of the underlying deficits that have been established as being present in those students either with a diagnosis of ADHD or those who exhibit characteristic

behaviours but without formal diagnosis. The test can also help to distinguish between ADHD and other co-morbid disorders. Consequently, there are differences of opinion amongst some researchers as to these distinctions. Purvis & Tannock (see Rucklidge et al, 2002: 989) found that phonological processing, and not inhibitory control, differentiated ADHD and reading difficulties. Rucklidge and Tannock (2002) also cautions that:

[The fact that] Reading Difficulty (RD) and ADHD are each associated with different cognitive deficits provides support for the external validity of the disorders; however, establishing that a specific deficit is primary and unique to ADHD or RD requires evidence that a deficit cannot be explained by comorbid problems. (Rucklidge & Tannock, 2002: 989)

Rubia et al (2001: 142) also found that ‘response inhibition deficits have not been shown to be specific to this one form of psychopathology’ and go on to suggest that ‘studies using more stringently defined psychiatric control groups will be necessary to investigate the diagnostic specificity of inhibitory impairments’. Bruer (see Goswami, 2004: 12) cautions that ‘while neuroscience has learned a lot about neurons and synapses, it has not learned enough to guide educational practice in any meaningful way’. Eliez et al (2000: 692) also cautions that ‘unfortunately, most of the neuroimaging studies performed in child psychiatry thus far have had sample sizes that are too small to identify definitively any subtypes that may exist’.

It is apparent that the advances in neuroscience have helped to develop our understanding of complex neurological functioning and the relationship with a variety of disorders including ADHD. However, neuroscience has not been able to establish any direct link to specific disorders but has shown links to a variety of interrelated conditions that may be present in these disorders. The identification of specific neurological functioning and its effects on learning and behaviour is an important step

forward in distinguishing between complex related disorders. It is also important in devising the best educational interventions and subsequent outcomes for those deemed to be suffering from these disorders (Jitendra, 2008; Sherman, 2008).

Statutory background

Supporting ADHD: The Code of Practice

Since the 1970s and in particular in the wake of the Warnock Report, government has pursued an inclusion programme for students with special needs into mainstream schools. Many of these children, particularly those with more complex difficulties, would previously have been educated in special schools or units. However, despite the legislative developments such as the DfES Code of Practice that gives practical SEN guidance to schools, many schools are failing to give satisfactory support to students with SEN. This is particularly highlighted in the case of students with complex behavioural difficulties including those with emotional and behavioural difficulties (EBD) and ADHD. Schools and teachers have found it difficult to include and manage these students, leading to disaffection and exclusion. Teachers in particular have found they lack both knowledge and training in how to deal with these students.

The rejection of the 'medical model' has reduced the stigma of labelling and 'within-child' factors of SEN. But has this led to a reduction in the identification of internalised and 'medical' conditions in the classroom?

The rejection of the 'medical model' means teachers are failing to identify children with complex neurological and 'within-child' conditions such as ADHD at the early

stages of these types of disorder, thus affecting progress in these pupils' learning and self-esteem. In the case of ADHD, this may be contributing to the growing number of students with social emotional and behavioural problems in schools who end up being excluded. The DfES Code of Practice defines EBD as follows:

Section 3.64 of the DfES Code of Practice (1994) on the *identification and assessment of special educational needs* defines children with EBD thus:

Pupils with emotional and/or behavioural difficulties have learning difficulties as defined at paragraph 2:1 above. They may fail to meet expectations in school and in some but by no means all cases may disrupt the education of others. (DfES, 1994 Code of Practice: 54)

Section 3:65 of the 1994 Code of Practice goes on to further define some of the causes of EBD:

Emotional and behavioural difficulties may result, for example, from abuse or neglect; physical or mental illness; sensory or physical impairment; or psychological trauma. In some cases, emotional and behavioural difficulties may arise from or be exacerbated by circumstances within the school environment. They may also be associated with other learning difficulties. (Section 3:65 DfES, 1994 Code of Practice: 54-55)

It can be noted that none of the above definitions mention ADHD per se but make some reference to physical or mental illness. Another interesting point in this definition is the assertion that EBD 'may arise from or be exacerbated by circumstances within the school environment' and this will be returned to later in this thesis

The current Code of Practice (DfES, 2001) makes no reference to children with EBD or ADHD in the definition of special needs but under section 7: '*Statutory Assessment of Special Educational Needs*' the Code makes the following definition:

Children and young people who demonstrate features of emotional and behavioural difficulties, who are withdrawn or isolated, disruptive and disturbing, hyperactive and lack concentration; those with immature social skills; and those presenting challenging behaviours arising from other complex special needs...(Section 7:60 DfES, Code of Practice: 87)

Because of the complexity of ADHD, it is not easy to define or identify. Naturally impulsivity and hyperactivity are much easier to spot than shyness and introversion, especially when they are combined with subtle cognitive deficits that impinge on the processes of learning. Accordingly Cooper (1996) summarises the disorder thus:

This neurological disorder often shows itself in subtle and inconsistent ways, thus identification and assessment processes are aimed at investigating *long-term emotional and behavioural patterns* displayed by the child in various settings, over an extensive period of time. (Cooper, 1996: 20)

Thus, for early identification of ADHD or EBD and therefore early support to take place, it is essential that a detailed analysis of the needs of these particular students is provided and that they are assessed at the early stages so that targeted and effective support can be given. However, the DfES acknowledges that although sound assessment is the first step, ‘boundaries between EBD, ordinary unruliness, disaffection and various clinical conditions are not always clear-cut but have a major bearing on the solution required’ (DfES, 1997: 80).

The current legislation for children with special educational needs as outlined in the DfES (2001) Code of Practice is based on five fundamental principles of inclusive practice. These are as follows:

- A child with special educational needs should have their needs met
- The special educational needs of children will normally be met in mainstream schools or settings
- The views of the child should be sought and taken into account

- Parents have a vital role to play in supporting their child's education
- Children with special educational needs should be offered full access to a broad, balanced and relevant education, including an appropriate curriculum for the foundation stage and the National Curriculum

(DfES, 2001 Code of Practice: 7)

These fundamental principles are the cornerstone of the government's inclusion Policy and place an onus on schools to provide for the social, educational and moral needs of children in mainstream schools, regardless of their special needs or disability.

The emphasis throughout the Code is on early identification and supporting students' Individual' needs to be able to access the full range of educational opportunities that are made available for all students. The way students are supported is based on a partnership approach between the school, the student and the students' parents, health and social services and other agencies such as Child and Adolescent Mental Health Services (CAMHS).

Special needs support in schools is through a three-stage SEN structure (school action, school action plus and statement) offering different levels of support for an individual's physical, social and or learning needs. The type of support that is required may be outlined through an Individual Education Plan (IEP) in cases where the provision needed is considered to be 'additional to or different from normal provision' or through a 'statement' of statutory provision. In addition to an IEP for learning needs, a school may also use a behaviour support plan or home/school contract to target particular problems with behaviour or attendance. A criticism of the Code's staged approach is how and on what criteria is a child placed on a particular stage.

In simplistic terms, if a child's needs can be met in the classroom through the normal differentiated curriculum, then the child will be placed on the 'school action' stage of the Code. If, however, the child's needs require the intervention of external support services, for example psychological or behaviour support services, then the child will be placed on 'school action plus'. In certain cases, a child may have such complex difficulties that the Local Authority will issue a statutory assessment or 'statement'. A statement outlines a statutory requirement for the school to provide certain levels of support for the child's needs, for example, it may specify that the child requires a Learning Support Assistant (LSA) for a designated number of hours per week. The Code of Practice also acknowledges that some children's needs may be so severe and complex that special educational provision is called for.

However, a report from the Special Needs Research Centre (cited in Farrell and Ainscow 2002: 16) claimed that following the guidance issued in advance of the publication of the 1994 Code of Practice 'More importantly, LEAs set different terms and conditions to govern which students should be placed at which stages'.

These differences were seen to be more marked for certain special needs such as children with EBDs thus:

Criteria for emotional and behavioural difficulties were particularly fuzzy and varied, with the failure of previous provision to make a difference to the child's difficulties commonly cited. (Farrell and Ainscow, 2002: 17)

The current special educational needs Code of Practice came about as a result of the 1996 Education Act but is a product of fundamental ideological change since the 1944 Education Act and in particular the 1978 Warnock Report. The most fundamental change brought about by the Warnock report was that it emphasised *educational* criteria for defining the special needs of children thus moving away from the medical or deficit model of need. Terms such as 'maladjusted' and 'educationally sub-normal'

were replaced with terms such as Emotional and Behavioural Difficulties, ‘Severe Learning Difficulties’ and Profound and Multiple Learning Difficulties. The days of Foucault’s ‘fools and mad men’ walking the streets, it seems, were over, as was the use of terms such as ‘idiot’, ‘sub-normal’ and ‘mentally defective’ to describe people with physical and learning disabilities. However, the move away from using medical descriptions and categories by teachers to describe certain ‘within child’ conditions in the classroom has created a sort of ‘them and us’ situation between teachers and doctors when children are deemed to be suffering from a medical or biologically determined condition such as ADHD or Autistic Spectrum Disorders. Therefore, when children are on medication for a condition such as ADHD they are sometimes seen as outside of the teacher’s responsibility. According to Cooper (1996) this can lead to demarcation disputes between teachers and doctors. Thus:

Teachers sometimes engage in demarcation disputes when they feel they are being asked to do things, which are outside their area of responsibility. They may have particular views and beliefs that make it difficult for them to cooperate with psychologists, medical doctors or parents. For example, they may have strong objections to the idea that behavioural problems can be influenced by biological factors. (Cooper et al, 1996: 81)

Historically, the post-war social and educational reforms led to the introduction of the 1944 Education Act and introduced compulsory post-elementary education for all children. The Act also established the principle that ‘all children are educable and therefore their educational needs should be met within the school system’ (Clough, 1998: 37). Clough (ibid) suggests that although this was a ‘profoundly inclusive policy it also had consequences that encouraged the growth of separate forms of provision for the disabled’. Thus Galloway (see Clough, 1998: 37) summarises this separation as follows:

This served to emphasise the separate nature of special education, with an implicit assumption that ‘special’ education could only be provided in schools

or classes recognised by the DES as efficient for the education of children with a particular category of handicap. The formality helped to ensure that transfer from special schools to the mainstream was a rare event.

A further consequence of the 1944 Act was to emphasise division and difference between 'normal' children and schools and those children considered to be impaired in some way or have a special need and therefore identified as those who should be educated in a 'special school'. Therefore the principles of 'education for all' and 'inclusive education' created 'exclusive practice' and stigmatised children with physical or educational special needs by placing them in special schools: thus they became 'excluded' from their mainstream peers.

The 1944 Act was criticised in respect of the fact that it placed an emphasis on 'impairment' and therefore support was geared to dealing with an individual's problems and ignoring the social and environmental aspects that could be contributing to a child's special needs. As discussed earlier, in 1967 the Plowden Report was published which brought fundamental changes to the way we viewed the causes and 'creation' of special needs. According to Clough (1998) the Plowden Report 'rejected the idea that educational 'handicap' arises from individual deficits' thus introducing the notion that schools and other educational institutes could be the 'disabling factor' in a child's needs by reinforcing social and economic disadvantage. The notion that schools are a context within which a child's educational needs could be compounded was also a feature of the 1978 Warnock Report:

Some handicapping conditions, particularly behavioural disorders, may be brought about or accentuated by factors at the school, such as its premises, organisation or staff. In such cases, assessment may need to focus on the institution, the classroom setting or the teacher as well as the individual child and his family if it is to encompass a full consideration of the child's problems and their educational implications. (DES, 1978: 59)

The 1944 Education Act started a significant shift in ideological thinking about how we ‘educate the masses’ to prepare people to meet the challenges of the post war economic revival. The 1944 Act also paved the way for the inclusive nature of the way we now aim to educate children. Subsequent legislation since that time has focussed on the needs of socially disadvantaged groups and those with physical and mental disabilities and how they can be better included within the mainstream education ‘system’.

The move away from conceptualising ‘within-child’ factors as contributing to a child’s special needs to the notion of social and environmental factors, including schools, as contributing to, and in some cases causing, special educational needs is not without its problems. According to Campbell and Oliver (see Mittler, 2000: 3):

The social model of disability is based on the proposition that it is society and its institutions that are oppressive, discriminatory and disabling and that attention therefore needs to be focused on the removal of obstacles to the participation of disabled people in the life of society, and in changing institutions, regulations and attitudes that create and maintain exclusion.

The special needs legislation since the 1944 Act has been aimed at the inclusion of people with physical disabilities and general learning difficulties within mainstream schools as opposed to special schools. The Code of Practice (2001) emphasises ‘enabling’ rather than ‘disabling’ and embodies the 1995 Disability Discrimination Act that places the onus on schools to ‘help them meet their responsibilities for disabled people’. However, subsequent legislation up to and including the current Code has created a climate in which certain important factors in a child’s special needs may be ignored or overlooked by teachers. According to Mittler (2000):

A defect or ‘within-child model’ is based on the assumption that the origins of learning difficulties lie largely within the child. According to this view, it follows that in order to help the child we need to find out as much as possible about the nature of these difficulties by means of a thorough assessment of the

child's strengths and weaknesses, to make a 'diagnosis' where possible and to plan a programme of intervention and support based on this analysis.

(Mittler, 2000: 3)

A more important aspect to be considered is the perception by teachers that these children are in some way outside of their responsibility, since 'an ethos exists which promotes inclusion yet acknowledges that the occasional pupil may have to have his or her needs met elsewhere and/or by other agencies' (DfEE, 1999).

There is a common held view that many types of disability are socially constructed, that is, society and its institutions are the disabling factor (Oliver, 1995). According to Berger and Luckman (1971), social categories and social knowledge are seen as being produced by the communications and interactions between people. Shakespear (2006) regards disability as socially created or constructed phenomenon and additional to a person's impairment (p.12-13). This can be viewed as an interaction between the impairment and social influences (Farrell, 2010).

It is further argued by Oliver (1995) and Jupp (1992) that if disability is 'constructed' by society the removal of barriers would reduce the disability and thus the need for special education. The term 'disability' is a broad term that can include medical and biological disorders such as ADHD and autism. This view is often regarded as the 'deficit model' because 'it places an emphasis on what an individual cannot do rather than what he can' (Farrell, 2010:13).

However, although there is an acceptance of the social construction of disability in this thesis it is also argued that conditions of a medical/neurobiological nature are

from within the child and may therefore require unique interventions to help overcome difficulties. It is also acknowledged that teacher attitudes, environment, schools, curriculum and family can exacerbate these conditions and create further barriers to social integration, learning and progress.

Thus the government's policy on including children deemed to have special educational needs is that 'for the vast majority of children their mainstream setting will meet all their special educational needs' (DfES, 2001). However, as stated earlier, there is one group of young people whose needs are not being met, who are becoming socially disadvantaged and are increasingly finding themselves excluded from education or finding themselves placed in a special school or units known as Pupil Referral Units. These students fall within the category known as EBD and will include those deemed to be suffering from Attention Deficit Disorders, hyperactivity, social-emotional and other co-existing disorders such as those affecting conduct and learning difficulties. The DfES (1997) Report *Principles into practice* states that:

We want to put our principles into practice for all children with SEN, including one group, which presents schools with special challenges-children with emotional and behavioural difficulties. The number of children perceived as falling within this group is increasing. We need to find ways of tackling their difficulties early, before they lead to under-achievement, disaffection and, in too many cases exclusion from mainstream education.

(DfES, 1997: 77)

Theoretically, if a child's learning needs can be identified and picked up at the early stages, and given appropriate support, the child is less likely to fall behind their classroom peers, or become disaffected, which could possibly lead to behavioural problems.

Thus, the Code of Practice states, 'when a class teacher or the SENCO identifies a child with SEN the class teacher should provide interventions that are additional to or different from those provided as part of the school's usual differentiated curriculum offer and strategies' (DfES, 2001: 52). Therefore children's learning is provided through a 'normal' differentiated curriculum with SEN support covered by certain interventions that are 'additional to or different from' the normal curriculum and will usually form part of an Individual Education Plan.

The sometimes simplistic view of SEN put forward by government, of meeting the special needs of the 'vast majority' of affected children often affects the way teachers perceive a child with SEN and subsequently support SEN in the classroom. The government's framework for meeting the special needs of children and thus 'including all children' has not been perceived without criticism with regard to the time and resources provided to meet children's needs.

The 2004 OfSTED Report titled 'Special Educational Needs and Disability-Towards Inclusive Schools' suggests that although schools are committed to meeting the special needs of students and are happy to admit 'pupils with complex needs', the 'admission and retention of pupils with social and behavioural difficulties continue to test the inclusion policy' (p.5)

When dealing with pupils with complex difficulties it needs to be remembered that such children are often at a higher risk of exclusion than children with 'normal' special educational needs. An example of this can be found in a survey by the National Autistic Society in which they found that children with autism and Asperger's syndrome were twenty times more likely to be excluded than their peers

(NAS, 2002). According to MacBeath et al (2006) school exclusion statistics in 2002-2003 indicated that 'statemented SEN children were nine times more likely to be excluded than children without statements' (p.60). Much of this exclusion, according to the Report, is down to 'lack of proper support for a child or for teaching staff, inappropriate placement, curricula and/or assessment' (ibid). The problem of a lack of support for SEN children is often highlighted in the secondary school where it seems teaching staff are rarely prepared for the complexity of learning and behavioural needs that arise in the classroom. However, government rhetoric on supporting complex needs would seem to paint a different picture:

An LEA educational psychologist put in place training for his class teacher and classmates. They were helped to understand Kevin's difficulties and were prepared for their part in his re-entry to school. A full-time teaching assistant and a lunchtime supervisor were appointed and the specialist diabetic nurse gave Kevin's 'team', training about his medical needs. Kevin's mother met with his 'team', including the educational psychologist, a behaviour support teacher and the head teacher, initially every two weeks to monitor progress and to adjust the programme if necessary. (OFSTED, 2003: 22)

The above anecdote is from the OFSTED (2003) report titled '*Special educational needs in the mainstream-LEA policy and support services*' and describes the support being provided for a boy who had been excluded from his previous school and had been receiving support at home from the LEA's Behaviour Support Service (BSS). He is described as having 'complex difficulties including attention deficit hyperactivity disorder (ADHD), Asperger's syndrome and diabetes'. He is also described as experiencing other conditions that often co-exist and are considered to be co-morbid with ADHD, such as mood swings (Bipolar disorder) and anxiety. The anecdote from the report paints a rather idealistic and 'rosy' picture of the level of support for a child with serious and complex difficulties that will have an impact on his learning, his relationship with family and peers and will probably continue into adulthood. The

report does not mention the huge costs and other resource implications of this level of provision. However, how does the identification of complex needs and the subsequent and necessary support given by teachers translate into practice? How do teachers deal with complex needs such as ADHD in the classroom? What special training have teachers received so they can understand and support these children's needs? The answers to these questions are sometimes as complex as the disorders themselves.

Personal reflection

In the 1990's when I was employed as a classroom teacher in mainstream schools, I noticed that a small number of children had difficulty controlling their behaviour in class and therefore disrupted the education of others and made little progress with their own learning. These children were not always from 'low ability' groups or from areas of 'social deprivation' and did not necessarily attend 'bad' schools. However, I also noticed that their behaviour was often associated with learning difficulties such as low reading ability or difficulty with spellings and words, often leading to low self-esteem. Consequently, these children were often placed in ability groups where teachers had a certain 'low' expectation of their behaviour and academic progress. How often do we hear teachers in the staffroom sighing at the thought of teaching 'class 4c' this afternoon? During my work as a mainstream school classroom teacher I became involved in teaching small groups of children that had 'difficulties' and had been 'withdrawn' from the classroom so that they could be given some 'remedial' support, to 'catch-up' and make progress. I noticed that this individualised and small group support made a big difference to their self-esteem and, consequently, gave them the confidence to learn and improve their behaviour. Typically, the 'head of special needs' or another designated person managed these 'withdrawn' groups of children

and had the responsibility of co-ordinating learning support throughout the school. The head of SEN was viewed by classroom teachers as being the ‘expert’ for matters concerning SEN students in the school and, consequently, any child with learning or behaviour difficulties was either ‘referred’ to this person or they would be ‘consulted’ on how to deal with the problems presented in the classroom.

The level and complexity of students considered to have ‘special needs’ in a mainstream school was mainly confined to ‘slow learners’ who required some form of ‘remedial’ support and to those children who, for whatever reason, could not control their behaviour in the classroom and were therefore withdrawn for periods of time and consequently ‘punished for their crime’. Children with more complex problems such as those with Moderate Learning Difficulties, Autistic Spectrum Disorders, and Social Emotional and Behavioural difficulties were usually placed in special schools and units, a situation that in some instances remains today.

The inclusion of children with complex needs in mainstream schools, particularly those with ‘medical conditions’, has created a dilemma for the classroom teacher as the Codes of Practice (DfES 1994, 2001) emphasise that all teachers are teachers of special needs and this places an onus on teachers to ‘provide’ for those needs.

However, according to the DfES, teachers are ‘generally not reaching out to take pupils with more complex needs, especially if their behaviour is hard to manage’.

(OFSTED, 2004: 23)

The SENCO

The school Special Educational Needs Coordinator is the crucial link to the effective inclusion of children with a wide range of social and educational needs. According to the SENCO charter (NUT, 2005), the role can only be effective in cases where school systems value and empower them in this difficult and complex position. The SENCO's role is to coordinate provision for pupils with SEN and secure high quality teaching and learning and the effective use of resources to meet the educational needs of young people with SEN. In order to carry out these essential duties, SENCOs should have sufficient time, space and administrative back up to fulfil the role. It is also important that the training needs of SENCOs are clearly identified and that they are involved in appropriate professional development and training. During my own appointment as a SENCO, I was also a member of a local forum where an exchange of information and ideas was a useful addition to formal courses. The position of SENCO is demanding and many SENCOs complain of excessive workloads and lack of resources, especially in staff time.

The Code of Practice sets out a staged approach to the 'identification and assessment' of a range of children's needs but in the case of complex neurological and medical conditions this can take a considerable length of time involving a range of 'experts'. The staged assessment set out in the Code ranges from the 'raising of a concern' by the classroom teacher to the multi-agency assessment involving observations, teacher and parent questionnaires, interviews with the child and parent/s, referral to child psychologist/behaviour support services, a GP or paediatrician and the involvement of other necessary long-term assessment procedures to enable accurate diagnosis to be

made. Mittler (2000) recommends caution about the use of 'new' diagnostic categories in schools:

In addition to children with clear evidence of specific impairments, the past decade has seen a spate of 'new' diagnostic categories where an organic aetiology has not been clearly established, even though research might in due course identify such a link. Obvious examples include dyslexia, attention deficit disorder (with or without hyperkinetic behaviour) autism and Asperger's syndrome. So far, there is little convincing evidence that accurate diagnosis of these or similar conditions, necessarily calls for syndrome-specific types of educational interventions. (Mittler, 2000: 4)

Although Mittler (2000) posits that specific educational intervention may not be necessary in all cases where a 'diagnosis' has been made, there are conditions, it could be argued, such as Autism, ADHD and Dyslexia where special provision to meet learning and behavioural needs is essential for progress to be made. This clearly brings us to two crucial questions with regard to supporting such students. Firstly, are students with complex difficulties such as ADHD and EBD being identified by teachers early enough? Secondly, because there is a lack of identification of the needs of these students as having a specific learning and/or behavioural difficulty are the needs of this group of students being met and may this non-identification possibly lead to exclusion and failure? Cooper et al (1996: 78) posits that 'ADHD which goes undetected and untreated in children may progress into more serious conditions'. According to Landrum et al (2003) teachers faced with students exhibiting social emotional and behavioural problems have a particular difficulty with regard to their own levels of training and expertise to deal with these groups. Thus:

Unfortunately, it appears that many, if not most, teachers are inadequately trained to intervene and effectively manage the more serious behavioural and instructional challenges that students with EBD are likely to present. (Landrum et al, 2003: 153)

However, it is not just students with EBD and ADHD who are causing concern amongst teachers in the 'inclusive' classroom. Many other complex and

neurologically based disorders such as Autism, Dyslexia, Dyspraxia, Aspergers' syndrome, Bipolar disorder and physical disabilities are also being presented to teachers on a daily basis. Another problem for teachers is the long and complex procedures involved in the 'diagnoses' of these complex special needs, often involving long periods of assessment and observation by 'experts' before an accurate diagnosis, and therefore accurate and effective intervention can be made. The assessment of a child's 'medical' needs' will typically involve psychologists and psychiatrists, therapist, doctors and paediatricians, attendance at external assessment centres such as Child Development Centres and Child and Adolescent Mental Health Services, by the parents and the child. However, according to a Report by the NUT (2003), the style of this identification and assessment has changed from individual support to that of advice. This effectively places the onus of hands on support for complex difficulties to the SENCO as 'expert'. The SENCO will be the key person who needs to translate advice into effective strategies and implement programmes of support for the child. This means that the SENCO will need to update their knowledge and skills in order to meet these challenges. Although the NUT Report (2003) found that a fairly high proportion of SENCOs (57%) were satisfied with their general training needs, the Report also found that more 'specific training needs as SENCOs are not being met adequately' (p.17)

Cole (2005) suggests that in order to meet the evolving and increasingly difficult role of 'coordinator', the SENCO role needs to be re-conceptualised and re-defined since the introduction of the revised Code of Practice (2001). However, it could be argued that the group EBD is the group that provides the biggest test to the inclusion policy and to the statement that the 'failure to provide education and create the conditions for

individual progress may be seen as a denial of a child's rights' (SENCO update, 2004 p.8). Indeed in a survey conducted by Cole (2005) the findings were that '83% of SENCOs expressed concern about the school being able to meet the needs of pupils with EBD' (p. 299). According to Kaufmann et al (see Cole 2005 p.303-304):

The inclusion of children with certain special needs such as autism and emotional and behavioural difficulties may come to dominate the political agenda as both parents and teachers fight for or against their inclusion in the mainstream classroom. In both the USA and Australia policies of inclusion have already been severely tested over the question of children with EBD (Cole, 2005 p.303-304).

The SENCO role is difficult and is made more so by the inclusion of children with complex special needs. The role of the SENCO is also made more difficult by the sometimes low status given to the role and the general lack of resources to carry out essential practice and support. In the survey conducted by Cole (2005) the findings were that many SENCOs maintained that they 'need more time, status, leadership and financial power to make this (inclusion) more effective' (p.299). Cole goes on to suggest:

If this is the case then it is hardly surprising that, given this generally perceived shortfall in funding the gap between policy and practice is difficult to close and the status of practitioners working to support inclusive practice is low. (Cole, 2005 p.300)

A somewhat contradictory view of this lack of power and status of SENCOs is the perception of their role as the leading 'expert' on SEN. According to Corbett (see Cole, 2005 p.304) 'while the 'professionalisation' of SEN and inclusion may appear to offer special' status, it remains questionable as to the nature and desirability of such status'.

Cheminais (2005) also suggests that the SENCO role should be re-conceptualised in order to meet the new challenges and changes in schools in recent years. One of the

biggest challenges to affect schools and SENCOs has been the introduction of the Every Child Matters agenda (DfES, 2004). This legislation considerably increases the responsibility and accountability of SENCOs. Recent educational reform requires SENCOs to become far more strategic and there is a move to raise SENCO status to that of a deputy head or similar. According to OfSTED (2005):

The most effective SENCOs in primary and secondary schools are influential in training staff and use their time and expertise very efficiently to support pupils and staff. They also have a high profile and a well-established leadership and management role. Effective inclusion is very closely associated with strong leadership and management and an underpinning commitment to translate policy into practice (OfSTED, 2005).

According to Cheminais (2005) 'personalised co-ordinated multi-disciplinary services based around the needs of the child, and their impact on learning and well being of pupils with SEN, is the key focus to the chapter of Removing Barriers to Achievement (RBA)' (p.29). The government proposes four key areas of SEN strategy:

- Early intervention;
- Removing barriers to learning;
- Raising expectations and achievement and;
- Delivering improvements in partnerships.

It is also proposed in the ECM agenda that early intervention will be supported by:

- Access to suitable childcare for parents;
- Removing barriers to learning will be improved by embedding inclusive practice;
- Raising expectations and achievement through national strategies such as Sure Start, personalised learning, assessment for learning and staff CPD;

- Delivering improvements in partnerships and ensuring parent confidence.

Cheminais also comments that RBA has started to make steady progress for children with ‘less severe needs’ including those with ‘less severe BESD’. However, she goes on to suggest that the government clearly recognises that in order to enable mainstream schools to successfully include pupils with diverse needs such as emotional and behavioural difficulties, teachers will require additional resources and support. Although the government acknowledges that certain groups of pupils such as those with more severe EBDs may require specialist provision they also suggest:

Inclusion is about much more than the type of school that children attend; it is about the quality of their experience; how they are helped to learn, achieve and participate fully in the life of the school (DfES, 2004 p.25)

Government places an onus on the SENCO and other teachers to identify and support pupils who experience social emotional and behavioural difficulties. However, influential Reports such as the NUT survey show there are many barriers that can hinder this process such as restrictions on time to do the job and specialist training and resources that prevent SENCOs and other teachers from being effective in supporting SEN. Therefore in order for SENCOs and other teachers to meet the ECM agenda of ‘removing barriers to learning’ and to instigate ‘early intervention’, government will need to help SENCOs remove barriers to their own effectiveness and equip them with more training and time to be able to identify those pupils with complex needs early and by doing so meet the ideals of ECM.

In 2008 the government introduced new legislation that requires all SENCOs to be qualified teachers (DCSF, 2008). In addition to this there is a recent government initiative to assist SENCOs with the ever increasing demands of their role through a new national diploma. According to the TDA the diploma aims to help experienced teachers in mainstream schools to develop the knowledge, skills and a deep understanding to deliver expertise on SEN. In addition, participants will be able to use the knowledge and skills gained on the programme to influence and improve other teachers practice and collaborate effectively to instigate change (TDA, 2010)

Also, in 2008 and as part of the Children's Plan, the Department for Children Schools and Families announced a review of Children and Adolescent Mental Health Services (CAMHS). The review addressed the education, care and support needs of children at risk and those experiencing behavioural, emotional and social difficulties as a special need (Teachernet, 2008). Whilst this review was taking place, the DCSF issued guidance on educating children with BESD. This guidance outlines and reinforces the duties in the Education Act 1996 that requires governing bodies to ensure provision is made for pupils with SEN. The guidance is specifically aimed at children with behavioural, emotional and social difficulties including conduct disorders and ADHD. This guidance initially places an onus on classroom teachers to observe, identify and intervene in the management of pupils with BESD. The guide also suggests that follow-up support will be provided by SENCO's and external support services where required. The Report acknowledges that BESD difficulties are likely to be a barrier to learning and could lead to frustration, aggressive behaviour and possible exclusion. The Report suggests that a medical diagnosis will assist teachers in developing appropriate strategies used to manage and minimise the impact of conditions such as

BESD/ADHD. The Report also acknowledges that identified difficulties without a diagnosis must be addressed.

Undiagnosed and unidentified BESD is an important issue in addressing the needs of young people with BESD and ADHD and is reported elsewhere in this thesis.

Unidentified and unsupported behavioural difficulties can also impact on a child's rights under the Disability Discrimination Act (1995). According to the Disability Rights Commission Code of Practice for schools, 'it may not be immediately obvious that a child is disabled. Under-achievement and difficult behaviour may, in some cases, indicate an underlying disability which has not yet been identified' (Disability Rights Commission, 2002 p.15)

The BESD guidance Report goes on to suggest that 'careful consideration should be given to whether there may be unidentified SEN when challenging behaviour is being addressed' (p.23). The Report also suggests that 'consideration should be given to whether other interventions could provide an alternative to exclusion' (ibid). This issue of unidentified needs and the consequent lack of appropriate support in schools, which may lead to exclusion, is a serious concern amongst teachers and society generally. The increasing numbers of children placed in Pupil Referral Units and other specialist provision gives evidence of this. According to the BESD guidance Report 'exclusion data reveal a disproportionately high rate of exclusions of children and young people with SEN' (p.23). The Report also acknowledges that a high number of these children will have BESD as a primary difficulty (p.5).

It is suggested in this thesis that government policy up until now has not been able to address the problems associated with unidentified and unmet needs for BESD/ADHD pupils, which has led to high levels of exclusion for these groups. This goes against government inclusion policy and in some cases, it could be argued, violates individual children's rights. It is also suggested by the government and others (Cole, 2005; Cheminais, 2005) that the role of SENCO should be enhanced through increased status and further training in order to better support children with complex needs and other SEN.

The establishment of ADHD as a biological, psychological and sociological disorder that can affect learning and personal development is only part of the story. As educationalists, teachers can adopt a sceptical view of the medical/biological cause of learning/behavioural difficulties and can find themselves at odds with medical opinion. It is important, therefore, to examine the assessment processes that go beyond schools in establishing a possible medical/biological cause of ADHD. If a medical/biological cause is established and is viewed as a contributory factor in the learning and behaviour difficulty of the pupil, then drugs may be prescribed along with educational and psychological interventions to support learning and social development. This research thesis examines the link between the biological establishment of ADHD and how this impacts on the social and educational world of teachers, schools and pupils.

Summary of Chapter 2

ADHD first appeared as a recognised syndrome in 1994 APA diagnostic manual. However, much research has been conducted since the British medical doctor George Stills (1902) gave the first clinical links to behaviour disorders in children. Today's advanced computer imaging technology has enabled medical practitioners to enter a whole new world of understanding with regard to the mechanisms of the human brain. However, controversy still exists around whether ADHD is a biological syndrome or a social construct. Organisations such as National Institute of Clinical Excellence and the British Psychological Society as well as many experts in the field of education and medicine prefer to view ADHD as biopsychosocial disorder to reflect its roots in biology, psychology and socially. ADHD is often viewed as a behavioural disorder that is treated with drugs rather than its core problems associated with attention difficulties and sometimes hyperactivity. The impact that ADHD has on personal development, learning and behaviour are the areas of most concern to parents and teachers. The controversy surrounding the use, and sometimes misuse, of medication to help children control symptoms of ADHD remains.

Chapter 3: Research Methodology

Qualitative researchers approach their studies with a certain paradigm or worldview. Paradigms are viewed as a set of basic beliefs or metaphysics that guide the investigator 'not only in choices of method but also in ontologically and epistemologically fundamental ways' (Denzin & Lincoln, 1998: 201). The word 'basic' is used not as a sign of simplicity but because paradigms have to be accepted on faith as ultimate truthfulness cannot be established. According to Denzin & Lincoln (1998):

A Paradigm may be viewed as a set of basic beliefs (or metaphysics) that deals with ultimates or first principles. It represents a worldview that defines, for its holder, the nature of the 'world,' the individual's place in it, and the range of possible relationships to that world and its parts...Inquiry paradigms define for inquirers what it is they are about, and what falls within and outside the limits of legitimate inquiry (Denzin & Lincoln, 1998: 200)

Cresswell (1998) uses the word 'assumption' when he describes paradigms. 'Qualitative researchers approach their studies with a certain paradigm or worldview, a basic set of beliefs or assumptions that guide their enquiries' (p74). He goes on to say that these assumptions are related to the nature of reality (ontology) the relationship of the researcher to what is being researched (epistemology) and the methodological issue or process of research. Paradigms are an important consideration in research because they are philosophical guidelines that assist the researcher in choosing a particular method of enquiry and in establishing a particular ideological position. The paradigm that underlies and shapes this thesis is that of a qualitative practitioner researcher.

The choice of research subjects for this thesis was made through my own experience and contacts with external agencies and medical professionals in the locality of my professional practice. My personal contact with these professionals enabled me to access services and gain valuable research data from within the ethically driven world of doctors, psychiatrists and psychologists and was an essential component in this research. The role of teachers, SENCOs and the operation of the SEN Code of Practice in the identification and support of pupils with SEN/SEBD were also examined as part of this process leading to more formal assessment of need.

This investigation used an 'intrinsic' case study approach (Stake, 1998) with an interpretive and subjective dimension. According to Cohen, Manion and Morrison (2001) 'a case study is a specific instance that is frequently designed to illustrate a more general principle...case studies can establish cause and affect, indeed one of their strengths is that they observe effects in real contexts. Cohen et al (2001) go on to suggest that 'case studies can penetrate situations in ways that are not always susceptible to numerical analysis' (p.181) A multimethod approach was used incorporating questionnaires, interviews and observations and enabled me to triangulate the results. According to Cohen, Manion and Morrison (2001)

Triangular techniques in the social sciences attempt to map out, or explain more fully, the richness and complexity of human behaviour by studying it from more than one standpoint and, in so doing, by making use of both quantitative and qualitative data (Cohen, Manion & Morrison, 2001: 112)

Qualitative researchers often choose the case study as their preferred method of developing their knowledge and understanding of complex phenomena and as the best way of presenting data that supports their findings. Cresswell (1998) views the case study as 'an exploration of a 'bounded system' or a case (or multiple cases) over time

through detailed in-depth data collection involving multiple sources of information rich in context.’ (p.61). Cohen, Manion and Morrison (2001) see the case study as ‘a unique example of real people in real situations, enabling readers to understand ideas more clearly than presenting them with abstract theories or principles.’ (p.181). For my research, the case study was the first choice as it was necessary for me to understand and establish the cause and effect of neurological disorders and the context of their cause and development. Much of the clinical observation and diagnosis of these disorders are carried out at Child Development Centres (CDC) or centres dealing with mental health and family issues such as Child and Adolescent Mental Health Services (CAMHS). In order for me to understand the often situational and complex context of these disorders and how they develop it was necessary for me to have an understanding of the context of where these assessments are carried out. For observation and assessment purposes, the centres replicate ‘natural settings’ by using play areas, lounge areas and other informal and natural settings that are similar to home and school. The centres also skilfully use therapist and psychology workshops such as social skills groups to enable observation to take place in a non-threatening way and to work with the child and assess the child’s interaction with others. The methods of assessment used by doctors and other professionals are non-invasive and are conducted through observation and discussion with parents and the child. Professionals at the centre also seek the views of the child on how they perceive the problems and their possible triggers. All these factors were taken into account in the methodological design of the study.

This research thesis was organised into five phases:

- The first phase was to examine the processes involved in the identification of a special need such as ADHD.
- The second phase explored how professionals who work in schools' external support services are involved in the identification of childhood disorders.
- In the third phase I researched the role of paediatricians and psychologists in diagnosing and supporting children with ADHD in schools.
- The fourth phase investigated how teachers and classroom support workers viewed ADHD as a problem in the classroom and how this would be supported.
- The fifth phase examined how various government inclusion policies since the Warnock Report has created a situation where there are large numbers of children with complex behavioural needs entering mainstream schools and teachers sometimes struggle to meet their unique needs.

Initially, I sent 12 questionnaires to the two centres (Appendix 1). The purpose of the questionnaires was to establish the medical grounds for diagnosis, that is, the establishment of a neurological disorder, and the possible cause/s of ADHD, for example, whether it was considered to be a result of internalised deficits and/or environment. The questionnaires were my own design and the types of questions asked were formulated from information gathered from the literature on ADHD characteristics and from the behaviours listed in the DSM and ICD manuals (Appendix 11). I also used information gathered from the wide-range of research on the biological and genetic theories attributed to ADHD. Social and psychological aspects that are thought to contribute to the disorder were also considered in the

design of my questions. I followed up the questionnaires by conducting interviews at the two centres with key personnel who were involved in assessment, treatment and diagnosis. Further research was conducted in a comprehensive school where I conducted interviews with teachers and support assistants and carried out some observations of lessons.

The two centres where the small-scale survey was conducted are within a large education authority in the South East of England. One of the centres was a Child and Adolescent Mental Health Services centre (CAMHS) and the other was a Child Development Centre (CDC) attached to a general hospital. The centres were chosen through my professional contacts as an SEN coordinator and this also enabled me to make contact with key professionals at the CDC centre, such as the community paediatrician, and arrange interviews. The aim was to investigate the processes involved in the formal diagnosis of ADHD and the rationale for the prescribing of drugs to alleviate symptoms such as hyperactive behaviour or lack of concentration. Not all children with a diagnosis of ADHD are prescribed drugs as a treatment. Usually they are only prescribed drugs in the most severe cases where other social and psychological interventions have failed to make significant changes to behaviour (Brandau & Prentice 2004; NICE 2000) and therefore, the design of my study took this into account.

In the first phase of my research I sought the opinions of medical professionals on the disorder and the use of drugs in its treatment. I sent 12 questionnaires (Appendix 1) to the CDC and CAMHS centres and specifically targeted doctors and psychologists as the key professionals involved in the assessment and formal diagnosis of ADHD.

The questionnaire consisted of short dichotomous questions concerning the possible causes of the disorder and its treatment. The questionnaires were supported by interviews with key staff at both centres. I decided to use a standardised structured interview schedule since, according to Cohen, Manion & Morrison, 2001: 271 'the exact wording and sequence of the questions is determined in advance, and in the same order' in structured interviews and therefore comparability of response is increased.

The two centres are relatively small in size and numbers of staff. Hence, in addition to this, I targeted key staff such as doctors, psychiatrists and psychologists who are directly involved in the assessment and diagnosis of ADHD. In view of the small numbers of staff this would involve, I initially sent six questionnaires to each of the two centres. In addition, a further six questionnaires were sent to the CAMHS centre. The first set of questionnaires sought opinion on the medical cause/s of ADHD. The additional six questionnaires (Appendix 2) sent to the CAMHS centre sought opinions on the cause/s of the rising prevalence of the disorder. The first survey produced eight returns (Appendix 3) and the second survey five returns (Appendix 4). The purpose of the first set of questions and the type of questions used was to specifically target the medical causes of ADHD and to establish/confirm the rationale for using drugs in the disorder's treatment. Therefore as discussed above I decided to use a questionnaire that was highly structured and used closed questions. A dichotomous (agree/disagree) response was used. In addition, there were two open-ended response questions at the end of each section. According to Cohen, Manion & Morrison (2001: 250) 'the dichotomous questionnaire is useful, for it compels respondents to 'come off the fence on an issue'. This type of questionnaire is also easy to code, as there are only two

categories of response. The first questionnaire was divided into two sections. Questions 1-6 sought opinion on the possible causes of ADHD, and questions 7-12 sought opinion on the range of treatments for the disorder. I included an open question at the end of each section to invite a personal comment. The questionnaires were followed-up with interviews at both centres. Twelve questionnaires were sent out and eight were returned for analysis. (Appendix 1)

During this phase of my research I also carried out observations of three different lessons involving three different groups (Appendix 6). One group was a key stage three group (11-14) and the other two were key stage four groups (14-16). Cohen, Manion & Morrison (2001) suggests that observation is attractive because it gives the researcher the opportunity to 'gather 'live' data from 'live' situations'. They go on to suggest:

This enables researchers to understand the context of programmes, to be open-ended and inductive, to see things that might otherwise be unconsciously missed, to discover things that participants might not freely talk about in interview situations, to move beyond perception-based data (e.g. opinions in interviews) and to access personal knowledge (Cohen et al, 2001: 305)

There are many different types of observations ranging from highly structured, where the observer knows in advance what they are looking for and then hypotheses will be either confirmed or refuted, and unstructured, where the observer's hypotheses will be generated rather than tested. A semi-structured observation was used. According to Cohen et al (2001: 305) 'semi-structured observation will have an agenda of issues but will gather data to illuminate these issues in a far less pre-determined or systematic manner'. The purpose of my observations were twofold in that, firstly, I was seeking to identify students who might be displaying ADHD characteristic behaviours and secondly, to determine if any behaviours that could be attributed to ADHD were problematic in the classroom and how these would be dealt with by the

teacher. Descriptive notes were taken (Appendix 7) to record what was being observed and to see how these related to the agenda of issues (Appendix 6). The issues outlined would be used to match any characteristic behaviour's listed in the diagnostic manuals (Appendix 11). The data collected was presented as a chronology of events as they unfolded (Appendix 7). The observations were used to give an example of how perceptions of what constitutes ADHD characteristic behaviours and possible misdiagnosis can lead to the disorder being wrongly identified (p.184). The use of multi-method data collection enabled me to triangulate my results and ensure the reliability of findings.

The design of the questionnaire used mainly closed questions with an opportunity for an open response. If only closed questions are used there may be a lack of coverage or authenticity. If only open questions are used there may be problems with lack of response or the comprehensiveness of the answers given. Therefore the use of both types of questions seemed a good way of addressing these design issues and increasing the validity of responses.

The interviews held at the CAMHS centre were less selective than the questionnaires, as a wide range of professionals are involved in the management of young people with ADHD and their assessment. I decided to interview doctors, psychologists, counsellors and therapists in order to investigate a range of responses. These professionals are also involved in the assessment of a wide range of other childhood disorders and family problems that are treated at these centres. A total of six interviews were conducted ranging from an interview with an Art therapist through to one with a community paediatrician (Appendix 5).

Interviews are an essential tool in educational research and are seen as an interchange of views between two or more people on a topic of mutual interest. The interview is seen as not exclusively either subjective or objective, it is inter-subjective. Thus according to Laing (see Cohen Morrison & Manion, 2001: 267):

Interviews enable participants - be they interviewers or interviewees - to discuss their interpretations of the world in which they live, and to express how they regard situations from their own point of view. In these senses the interview is not simply concerned with collecting data about life: it is part of life itself, its human embeddedness is inescapable.

Interviews were also conducted at a London comprehensive school. It is important when conducting interviews to consider the ethics of the interview process. Initially I contacted the school by telephone and asked for an appointment with the head of special needs. I subsequently met with the schools SENCO and explained the purpose of my research. I also explained that I would like the opportunity to interview a number of teaching and support staff on their perception of ADHD and how it is supported in the school. The SENCO informed me that she would discuss my research with the head teacher in order to obtain her permission. The SENCO also informed me that she would approach members of the teaching and support staff with regard to being interviewed and observed. After the head teacher and SENCO agreed the research I visited the school and conducted the interviews and observations over several weeks. Before each interview, I explained to staff the purpose of the research and how any findings would be used and disseminated. I was asked by the SENCO if the school could have a copy of the findings and this was agreed.

When considering classroom observations, I was aware of the ethical dilemma of whether the observations would be of a covert or overt nature and how they would

intrude into the normal life of the school. I decided my observations would be overt by the fact that it was obvious that a stranger was sitting in the classroom observing students and making notes. However, I was also aware of the covert nature of my observations in respect that the students did not know what I was observing or why. I sat at the back of the classroom in order to minimise any disruption to the normal running of the session and to help reduce the 'Hawthorne' and reactivity effect of my presence (Lave and Kvale, 1995). The purpose of these observations was to see if there were any behaviours being exhibited in the classroom that matched the criteria of the DSM manual and therefore could be perceived or attributed to ADHD type behaviour. Further difficulties that can affect observation data are issues of unknown antecedents and the presence of the researcher in the location. The observations conducted for this research were semi-structured in that there was an agenda of issues (Appendix 6), namely ADHD type behaviours and characteristics as outlined in the DSM and ICD manuals (Appendix 11), but data were needed to illustrate how issues of perception and attribution of cause can be misconstrued.

Ethical considerations.

My investigation was, initially, looking at the assessment of children beyond the schools phase and was intended to explore the medical procedures in place to conduct a diagnosis of a complex condition such as ADHD. I designed the study with ethical considerations in mind, obtaining ethics permission for the research from the university at the outset. Initially I contacted the lead person at the two centres and explained the purpose of my research. This was followed-up with a letter seeking permission from a range of professionals employed at the centres. I was mindful of the fact that doctors and other medical professionals are subject to strong ethical

guidelines with regard to procedures and patient confidentiality. I also needed to accept the principles of informed consent and the subjects' right to freedom and self-determination. According to Cohen, Manion and Morrison (2001), 'social research necessitates obtaining the consent and cooperation of subjects who are to assist in investigations, and of significant others in the institutions or organisations providing the research' (p.50). They go on to say that 'the principle of informed consent arises from the subject's right to freedom and self-determination' (p.51). In effect this gives the right for participants to take part in the research or decline to participate and, this needs to be respected. This meant some of the doctors at the centres were not happy to have their interviews recorded and their right to refuse to take part or withdraw from the research was accepted. In view of the ethical principles of anonymity and confidentiality, I also needed to assure others that the information I was seeking was for my own research purposes and that I was also working under strict ethical guidelines regarding confidentiality of information. Clearance for this research was obtained via the use of informed consent, as approved by the university at the commencement of the study. Thus 'they (researchers) will be quite explicit in explaining to subjects what the meaning and limits of confidentiality are in relation to the particular research project' (Cohen, Manion and Morrison 2001: 62)

A final phase of research was carried out at three London comprehensive schools. Respondents were enabled to give informed consent by an invitation letter (Appendix 14) to participate voluntarily and could have withdrawn at any stage. I obtained permission to visit the schools, and both the institutions and respondents were anonymous in the thesis. There was no risk to any participant or to the researcher and the data from the interviews and questionnaires from all phases were securely and

anonymously stored. The guidelines of the British Educational Research Association (BERA, 2004) were followed throughout the thesis.

When designing a questionnaire it is important to consider the ethical implications of the questions. Doctors, teachers and other professionals abide by ethical codes of practice and have a duty to protect the welfare and interests of patients and students with regard to anonymity, confidentiality and the protection of data particularly when that data is of a sensitive nature.

In ethical terms, questionnaires can be viewed as an intrusion into the life of the respondent. They take time to complete, can be sensitive or invade privacy and therefore participants have a right to withdraw at any stage in the process or not to complete particular items in the questionnaire. The right of participants not to complete or return questionnaires can have adverse effects on the research data and outcomes and this needs to be considered at each stage of the process of analysis and when drawing conclusions from the research. Thus, there may be certain factors in the questionnaire design that need to be considered confidential particularly those factors, which are intrusive such as data that is of a medical or personal nature. There could also be data that could be perceived as a threat to a person or institution and therefore may go unreported. According to Cohen, Manion and Morrison (2001) questionnaires need to be clear in purpose, clear on what's needed to meet the purposes of the study, asks the most appropriate questions and elicit the most appropriate data to answer research questions.

The questions chosen were developed through my own experience of working with children with ADHD and through information gathered from the literature.

Information on characteristic behaviours from the DSM and ICD manuals was also used in the design (Appendix 11). Information gathered from the results of the initial questionnaire administered to doctors and therapist at the CAMHS centre would be used to develop an interview schedule (Appendix 5) and used at both the CDC and CAMHS centres.

The question of Bias.

Another important consideration arises also when using questionnaires in research regarding the issue of bias. The first questionnaire sample was targeted at doctors and psychiatrists at the CDC and CAMHS centres and therefore was small in size. The sample size used will depend heavily on the purpose of the study and the nature of the population in the survey. The CDC and CAMHS are community based and relatively small in size. Staff at the centres includes doctors, psychiatrists, psychologists, play workers and therapists. At this stage of my research, the purpose was to establish the biological underpinnings of ADHD and the justification by doctors for using drugs in its treatment. Therefore the first sets of questionnaires were sent for the specific attention of doctors and psychiatrists. The initial response rate was pleasing and out of twelve questionnaires sent I received eight returns. The sample size used depended heavily on defining the population of the focus of the study, that is, doctors and psychiatrists. Although the sample size was small, the findings are reflected in the current literature on the biology of ADHD and support the theories on cause and treatment. The survey was also supported by interviews with doctors and other key professionals at the two centres. The issue of validity, reliability and accuracy of

response were checked by triangulating the data against the results of the interviews and observations as well as my own personal experiences and the documentary evidence in the literature review.

According to Cohen et al (2001) the sources of bias in interviews are ‘the characteristics of the interviewer, the characteristics of the respondent, and the substantive content of the questions’ (p.121). These issues include:

- The attitudes, opinions and expectations of the interviewer;
- A tendency for the interviewer to see the respondent in her own image;
- A tendency for the interviewer to seek answers that support pre-conceived notions;
- Misconceptions on the part of the interviewer of what the respondent is saying;
- Misunderstandings on the part of the respondent of what is being asked.

(Cohen, Manion and Morrison 2001: 121)

On the specific issue of researcher bias Mehra (2002) suggests the following:

[The] qualitative research paradigm believes that the researcher is an important part of the process. The researcher can’t separate himself or herself from the topic/people he or she is studying, it is in the interaction between the researcher and researched that knowledge is created. So researcher bias enters into the picture even if the researcher tries to stay out of it (Mehra 2002: 7)

Interviews are an interpersonal exchange of views and therefore the interviewer can have an influence on the interviewee and consequently the data produced. Doctors and teachers can be protective of information given, especially when the questions being asked are of a sensitive nature or are seen as being a threat. I was therefore mindful of the fact that doctors and teachers work under strict ethical codes and guidelines

concerning confidentiality and protection of student/patient data. Bias in interviewing can be caused by poor rapport, poor prompting and biased probing (Oppenheim 1992: 62). Other causes of bias can be the style of the interviewer and whether too many assumptions are being made about interviewees' knowledge. There are also issues concerning power relations and equality between interviewer and interviewee.

Doctors and teachers as professionals have an element of power within their own fields of knowledge and as experts. However, it needs to be respected that a therapist or classroom assistant may feel intimidated by questions of an expert nature and may feel vulnerable or exposed by the interviewer's questions and this needs to be carefully considered in all cases.

Qualitative research paradigms accept that, to some extent, bias is inevitable, as the researcher's personal and professional understanding is one source of evidence.

Having accepted that there is an inevitable element of bias within the framing of the research, however, the researcher needs to try to maintain a critical and reflective stance to eliminate unnecessary bias and to check their facts by monitoring the conduct of the study in rigorous ways e.g. to ensure that interviewees, where possible are randomly selected, that questions asked are open-ended, and that key informants are used to cross-check data. I was mindful throughout of issues of bias and, while recognising that qualitative research invariably contains some elements of bias, I was scrupulous in ensuring that this was minimised. It was not possible to have direct contact with participants and therefore the medical secretary at the CDC and CAMHS centres approached interviewees. This meant that random selection of participants was not possible and therefore may have introduced an element of bias. However, bias was reduced to a minimum by the use of a structured interview schedule, which used the

same format and sequence of words and questions for each respondent (Silverman, 1993). I also incorporated some open-ended questions that enabled participants to freely answer the question in any way they wished.

Further research was conducted in a London comprehensive school and involved interviews with teaching and support staff and observations of children's classroom behaviour and conduct. A difficulty with this type of research is the inherent bias that can be caused by any pre-conception of the researcher during the observations and which may influence the outcome and findings. Six interviews were conducted with teaching and SEN support staff. The interview technique used in this fourth research phase was semi-structured (Appendix 6) and followed the interview guide approach in that the topic of ADHD was specified in advance and the sequence and wording of questions were decided in the course of the interview (Cohen, Manion & Morrison, 2001: 271). This interviewing technique is used to increase the comprehensiveness of the data and makes the collection of that data more systematic. According to Cohen et al (2001: 271) logical gaps in the data can be anticipated and closed, interviews therefore 'remain fairly conversational and situational'. The purpose of the interviews was to explore the views and perception of staff working with students with a variety of Special Educational Needs (SEN) as well as those deemed to have Social Emotional and Behavioural Difficulties (SEBD), which would include those with ADHD. Information was also sought as to whether staff had any personal experiences of working with students with a diagnosis of ADHD and how these students are supported in the classroom. The opinion, by staff, of whether ADHD, formally diagnosed or otherwise, is considered a problem in this particular school was also explored. Four Classroom Support Workers (CSW) and two teachers were

interviewed. Field notes were taken for five of the interviews and one interview was taped. I would have preferred to tape all of my interviews but unfortunately only one of the participants agreed to their interview being taped. The right of the other participants not to have their interviews recorded was accepted.

According to Kvale (see Cohen, Manion & Morrison: 270) there are several types of interview and Kvale argues that interviews:

Differ in the openness of their purpose, their degree of structure, the extent to which they are exploratory or hypothesis-testing, whether they seek description or interpretation, whether they are largely cognitive-focused or emotion-focused.

A final phase of research was carried out at three London comprehensive schools. One of the schools was an all girls' comprehensive and the other two were co-educational. Semi-structured interviews were conducted with two SENCOs and a learning support manager. Respondents were enabled to give informed consent to participate voluntarily and could have withdrawn at any stage. I obtained permission to visit the schools, and both the institutions and respondents were anonymous in the thesis. There was no risk to any participant or to the researcher and the data from the interviews and questionnaires from all phases were securely and anonymously stored. Unfortunately as with the previous interviews only one of the participants agreed to have their interview recorded. However this enabled me to code the data and provide in-depth analysis of key points from the interview. I was also able to triangulate data from earlier findings in this thesis regarding support for pupils. The guidelines of the British Educational Research Association (BERA, 2004) were followed throughout the thesis.

The data from the interviews identified a number of common themes concerning the identification and support for pupils with ADHD. This enabled me to triangulate findings from my earlier research data obtained from a classroom observation (Appendix 7) and from questionnaires and interviews with medical and educational staff on the possible cause/s of ADHD (Appendix 3 and 4). The various forms of intervention and support strategies used to help children overcome their difficulties was also explored and compared to data from the literature. I was also able to reflect on my own personal experience of working in special schools for children with EBD and ADHD (p.70) and through my role as a practitioner researcher in special education.

Reflections on the purpose of this research.

How then do these philosophical guidelines fit my position as a qualitative researcher? Why did I choose a particular ideological position such as an interpretive, naturalistic approach? Or did the nature of my studies guide me towards this particular stance? To answer these questions, I needed to analyse what the purpose of my research was. What body of knowledge I was trying to add to or discover? Where did I need to carry out my research and why? And finally, why did I choose a particular methodological approach?

The purpose of my research was to develop a better understanding of a natural phenomenon (neurological deficit) that affects certain children, is developmental in its nature and is pervasive across different settings. The subject matter of my enquiry is also of professional relevance to myself as lecturer and researcher in special needs. Neurological deficit in children is, unlike physical disability, a disability that's not

necessarily very obvious to the eye. However, the symptoms these disorders cause are very evident to those who come into contact with sufferers on a daily basis including the child's family and teachers. In order for me to develop a better understanding of childhood developmental behaviour and disorders, and the organisations /professionals that diagnose and treat these children, it was necessary for me to carry out the research from the inside of the organisations that diagnose, assess and treat these conditions within the natural settings. This naturalistic approach enabled me to gain a better insight into the very complex areas of diagnosis and develop first hand information from the doctors and other professionals. Cresswell (1998) defines qualitative research as:

.....an inquiry process of understanding based on distinct methodological traditions of enquiry that explores a social or human problem. The researcher builds a complex, holistic picture, analyses words, reports detailed views of informants, and conducts the study in a natural setting (Cresswell, 1998: 15)

This definition describes my own research precisely as I was researching a complex human phenomenon that is considered by the professionals involved to be multi-dimensional in its nature. As a teacher of special needs I had gained some professional knowledge of childhood disabilities such as ADHD and autism but I lacked the in-depth understanding of how these disorders manifest themselves and affect others. In many ways this approach of building a complex holistic picture fitted the ontological question regarding the reality of the situation, the 'how things really are' and how things really work' (Denzin & Lincoln, 1998: 201) in respect of my enquiry into the complicated phenomenon of ADHD.

In order to carry out research into neurological illness/disorders in children it was necessary for me to enter the complex and ethically driven domain of the specialist

medical practitioner (paediatrician). It was also necessary for me to develop an understanding of complex medical phenomena such as those involving neuro-developmental disorders. To conduct this research it was necessary for me to interact with doctors and psychologists in an epistemologically meaningful way in order to understand the phenomenon being studied from their (medical) point of view, that is, symptoms, cause, treatment and my own (educational) point of view as researcher, lecturer, facilitator. In order for research to be meaningful you must have the full understanding and cooperation of the respondents involved in the research.

The investigator must become part of the context in order to understand the processes and interactions of those being investigated. The inquirer and the object of enquiry interact to influence one and other and therefore cooperation between the researcher and the researched is essential. This is known as one of the axioms or basic beliefs of the naturalistic paradigms. According to Glass (2000) ‘there are no techniques available to the contemporary evaluator that, do not depend heavily for their validity on the cooperation of the persons being evaluated...’ Initial access to the CDC and CAMHS centres was through personal contact and through a detailed letter to the principal medical doctor at the respective centres. My introductory letter was passed on to the principal medical secretary who arranged the distribution of the questionnaires and arranged the interviews with key staff.

An important consideration in qualitative research is to look at the phenomena being researched holistically (Lincoln & Guba, 1985). This was particularly true within my research on developmental illness and disorders. The type of illnesses and disorders that form the focus of this research are considered to be developmental in their nature

and therefore many factors can have a bearing on the cause and subsequent development of these disorders. With neurologically based disorders, that is, those affecting the functioning of the brain, it is essential to look at the patients' complete history including family background (genetic and heritable links), medical history from birth, as some illnesses and disorders developing in later life can be a result of birth defects or trauma, co-morbidity or relationship to other disorders affecting diagnosis and environmental factors that can create and/or exacerbate a condition. It is only by looking at the patient and their disorder holistically that one can fully understand illnesses or disorders that have a developmental perspective because in isolation of the context of development, their cause may not make much sense.

By conducting this research in the field where assessment takes place it was possible for me to gain first hand information from the professionals involved such as doctors, psychologist and therapists. Sturman (1999) argues the following distinguishing features of case studies:

Human systems have a wholeness or integrity to them rather than being a loose connection of traits, necessitating in-depth investigation. Further, contexts are unique and dynamic; hence case studies investigate and report the complex dynamic and unfolding interactions of events, human relationships and other factors in a unique instance.

(Sturman see Cohen, Manion & Morrison, 2001:181)

Lincoln and Guba (1985) hold the view that qualitative research is based on an holistic view and that social phenomena, human dilemmas, and the nature of cases are situational and influenced by happenings of many kinds. This is certainly true with disorders that are considered to be developmental, as many 'other' factors have to be taken into account when assessing and diagnosing such disorders.

Stake (1998) divides the case study into three distinct types. First, is the ‘intrinsic case study’ where the study is undertaken because the researcher wants a better understanding of a particular case; second, is the ‘instrumental case study’ where the researcher is seeking an insight into an issue of refinement of a theory; third, the ‘collective case study’ an instrumental study extended to several cases.

I chose to do an ‘intrinsic’ case study because I was seeking to improve my knowledge and understanding of a complex multidimensional phenomenon (ADHD) for which researchers and doctors have many different views regarding its cause and treatment. Intrinsic case study draws the researcher towards an understanding of what is important about the case within its own world, rather than the world in general or the researchers’ own world, through issues, context and interpretations. According to Stake (1988), ‘the purpose of the case study is not to represent the world, but to represent the case’ (see also Denzin & Lincoln:104)

Gaining Access.

The reason I chose these two particular centres was through my professional connection as a Special Educational Needs Coordinator. The research undertaken for this thesis enabled me to adopt a reflexive approach and draw upon my own personal experiences both as a researcher and practitioner in the field of special education. The centres are located in a large education authority and serve as a specialised external support service to schools across two authorities in the south east of England.

In order to obtain the views of teachers and support assistants from a school perspective, I approached three schools, two co-educational and one single sex school. One of the co-educational schools was in the process of an OfSTED inspection and

the other co-educational school was reluctant to participate in research in such a sensitive area that can affect educational outcomes, behaviour and exclusion.

However, a London girls' comprehensive school was very willing to participate in the research and provided a valuable insight into the perception of ADHD and how teachers and support assistants viewed support differently. This school provided an additional dimension in respect of the fact that statistically more boys than girls receive an assessment and or diagnosis for ADHD and it was therefore interesting to hear staff views on the characteristic behaviours of the disorder in girls and how this might affect learning.

The three schools selected in this phase of my research are located in a large London education authority. I decided to choose co-educational schools to establish, as it is suggested in the literature, that more boys than girls are perceived/identified as having ADHD, and how this impacted on internal structures and support for pupils.

Unfortunately two of the SEN managers were very defensive about the subject matter and voiced a reluctance to take part in research on ADHD and behaviour. The literature in this thesis highlights a growing concern by government on exclusion data and the numbers of children being identified as having social, emotional and behavioural difficulties (Ofsted, 2004; MacBeath, et al, 2006). Consequently the school undergoing an OfSTED inspection was not contacted again at this stage and the rights of the other school not to participate was respected.

Summary of Chapter 3

This research thesis came about through my own professional practice. My choice of subjects was through my professional contacts and because they were experts in the field of my study. This created issues concerned with bias and I tried to control this through random selection and not being directly involved in who I would be interviewing. I also needed to be mindful of the ethical considerations of interviewing teachers, doctors and other medical professionals. I contacted the lead person at two centres by letter and the persons to be interviewed were chosen by the centre managers. The teachers and support assistants were chosen for interview by the school SENCO. I chose an intrinsic and interpretive case study approach in order for me to develop an understanding of a complex disorder and to develop an understanding of how it is identified by teachers and diagnosed by doctors.

Chapter 4: Findings and Analysis

The DfES Code of Practice (2001) is designed to give practical advice and guidance to LEAs and maintained schools in the identification, assessment and provision for children's special educational needs. Schools and LEAs must consider what the Code says and although it is up to individual schools how they discharge their duties, they must give regard to the Code and must not ignore it. As the teacher responsible for providing and coordinating of SEN support, I give a personal account of the operation of the CoP in the mainstream school where I was employed. From my experience of teaching in both special and mainstream schools this account is not untypical of the day-to-day organisation of SEN support. There is a need to streamline the present system of support and referral for children with complex difficulties as it is too time consuming and bureaucratic. This examination of the current SEN support system highlights a weakness that can lead to a failure to identify student' needs in the early stages and may lead to disaffection and possible exclusion.

Findings from personal experience and documentary analysis.

In this phase of my research I investigated and examined the processes involved in the identification and subsequent diagnosis, or non-diagnosis, of students with attention deficit hyperactivity disorder in schools. Working as a teacher of students with special educational needs, I was in the unique position of being able to investigate the identification and diagnosis of a phenomenon that crosses the boundaries of education, medical science and biology. This research phase investigated the support given to students either suspected of having the disorder, or with a diagnosis, through reflection and analysis of my personal experience and the literature reviewed.

When I was employed in the mainstream schools sector, I often came across young people who had difficulty with controlling their behaviour and consequently they caused disruption and this inevitably affected their own, as well as others', learning. Looking back to those days I realise that many of these children did not necessarily have a medical problem that caused their negative behaviour. It is true these children were disaffected from school life, they lacked self-esteem, were sometimes rude and often bored. School to them was simply a large playground! These children were often categorised as having learning difficulties because of their behaviour and were often found in the small withdrawal groups where, due to curriculum structure, small numbers and high staff ratios they tended to thrive.

However, some years later, in the early 1990s, I applied for a teaching position in an all-boys' special school for children with Emotional and Behavioural Difficulties (EBD). I soon realised that the young people at this school had far more severe problems than those I had encountered in a mainstream school, including problems with emotion and behaviour. Apart from the behavioural extremes I encountered, there were two very distinctive differences in the type of support these young people received. Firstly, there was a high level of psychological support and, secondly, there was a high level of medical support, including psychiatric support and medication. Many of these young people carried the ADHD label and some wore it with pride because it gave a reason or an excuse for their behaviour. Most of the young people who had a diagnosis of ADHD were taking medication (Ritalin) to help them with their difficulties and through my own experience I was able to identify when a dose was due or missed because behaviour and mood change was often bizarre. According to OFSTED (2005:9), in some EBD schools 'up to two thirds of pupils are on

medication as a result of their difficult behaviour'. In the twelve years I taught in EBD special schools, I developed a good knowledge of the characteristic behaviours of young people with ADHD and EBD but a very limited knowledge of the underlying cause/s of the disorder or the characteristic behaviours or the effect of medication. Most of my personal and professional interests at that time were in the psychological aspects of behaviour modification and behaviourism.

When I returned to mainstream teaching as a head of special needs (SENCO) I was faced with the all-inclusive classroom and it was quite a shock to the system at first. In one of the classes there was a young girl in a wheelchair who at only nine years of age was suffering from juvenile arthritis and could only walk a distance of a few feet at a time. In another class there was a boy with autism considered to be educationally 'high functioning' who did not suffer from behavioural difficulties. There were two hearing impaired girls for whom the teacher had to use a radio device and sit them at the front of the class to enable them to lip-read as well as hear. A girl of nine in another class had a very rare genetic disorder and was being taught how to count up to ten! Most of the classes I was teaching were the 'bottom set kids'. Two of the boys were on Ritalin and had a diagnosis of ADHD. Their attitude and conduct was often highly problematic in the classroom.

The start of my new teaching position as head of special needs also coincided with the start of my studies for the professional doctorate. The course handbook stated that research should be in an area of 'professional interest'. As a teacher of special education, I decided to research ADHD and how drugs such as Ritalin really affect the child and their ability to learn.

However, because ADHD is a complex neuro-psychiatric disorder it has been necessary for me to enter the highly specialised world of psychiatry, biology, neuroscience, clinical psychology, educational psychology and pharmacology. It was also necessary for me to relate these medical and scientific areas of my research back into an educational context. Some pertinent questions came to mind. Of what use will this research be to the teacher in the classroom? How might my research affect/change policy? What are the implications for training? From my point of view as a lecturer in SEN and teacher educator it is essential that the classroom teacher develops a better understanding of some of the more complex neurological disorders that can be found in the inclusive classroom. By doing so, the teacher will be able to better understand complex needs, adapt the curriculum and, more effectively work with medical professionals and advise colleagues. The purpose of my research is to examine the processes involved in the identification and diagnosis of ADHD and the rationale for using drugs in its treatment. According to Denzin (1989) 'Interpretive research begins and ends with the biography and self of the researcher' (p.12)

The initial identification of a special need, whether that need is a behavioural difficulty or a deficit in learning, is normally through a concern raised by parents and/or teachers. Concerns will be raised if a child's behaviour or learning difficulty is affecting relationships at home and/or in school and is affecting the child's learning and academic progress. Initially, the school's SEN co-ordinator or SENCO will monitor the child's progress/conduct and will begin to gather information from teachers and parents to ascertain the possible cause of the problem. A documented file will be established and monitored, and the child will be placed on the 'register' for SEN. The student's Special Educational Needs file will also be reviewed on a regular

basis to see if there is any emerging pattern or, if a difficulty already exists, if there is any information passed from previous schools or external support agencies such as the educational psychology service (EPS).

The placing of a student on the school's SEN register to indicate that they have an identified special educational need will instigate two things. Firstly, there is a process of continuous monitoring and gathering of information from teachers, a psychologist, a speech therapist and other professionals who may be involved. Secondly, extra support is normally put in place through an individual education plan (IEP). An IEP will only be generated if the programmes used to meet the child's needs are additional to or different from the differentiated curriculum plan that is in place as part of normal provision (DfES, 2001). Schools normally make every attempt to meet a child's needs through the school's normal SEN support programmes, that is, within the available resources allocated for supporting students with SEN. A child is placed on a school's register of students with special needs, initially at the school action stage, unless external agencies are involved. School based support will vary between schools but will typically include special educational programmes, monitored through an Individual Education Plan (IEP), extra classroom support possibly with a learning support assistant or in the case of behaviour problems, a behaviour support plan, and continuous monitoring of progress and conduct. At all stages of SEN support, the parents are involved and are asked to agree to the school's intervention and support strategies. Parental involvement and support by the school and their child's special needs is in line with the partnership approach advocated in the guidelines of the DfES Code of Practice. All schools should have a detailed policy on supporting students

with social emotional and behavioural problems as well as learning difficulties and must give regard to the SEN Code of Practice.

Prior to the 2001 Code of Practice for special educational needs, schools used a five-stage model ranging from stage 1, the raising of an initial concern, learning or behavioural problem either by the classroom teacher or parent, through to stage 5, the issuing of a 'statement' or statutory assessment of special need (DfES, 1994). A child whose educational or social needs were considered to be within stages 1 and 2 of the Code would have had their needs met through the strategies and support provided by the school's own staff and resources. If the child's needs necessitated support from an agency external to the school, for example a speech and language therapist or psychologists, the child should have been placed at stages 3 and 4 of the Code. Stage 5 of the Code would be for any student with a statutory assessment of special educational needs or statement. The issuing of a statement of special educational need places a statutory obligation on the school and the Local Education Authority (LEA) to provide for the child's needs (1996 Education Act (section) 324). An example of this would be, let's say, the statement required the child to have extra classroom support from a Learning Support Assistant (LSA) for 15 hours per week. The school would be under an obligation to provide for this support either from existing school resources or by employing additional staff. The school might also need to 'buy in' specialist staff such as hearing impaired tutors or speech and language therapists. The 2001 Code of Practice (DfES, 2001) made significant changes to supporting students with special needs. The five-stage model was replaced in 2001 with a three-stage model (School Action, School Action Plus and Statement). The Code emphasised that the vast majority of students with special needs would have their needs met within the

school's own resources. Therefore, in practice, a high number of SEN student needs would be met at the 'School Action' stage of the Code. However some students may have physical or learning needs of such complexity that support from outside the school will be necessary and this would place the student at the 'School Action Plus' stage of the Code. Students with a statutory assessment or statement would normally be receiving external medical or educational support for their special needs.

The referral of children with any condition, medical or otherwise, by teachers and schools to external support services is not automatic or a matter taken lightly. Referral has implications for time and resources, involves extensive paper work, meetings and monitoring and the consent and involvement of parents and the child. Referral also puts a spotlight on the internal organisation of the school with regard to teaching methods, teachers, curriculum and special needs departments. Therefore it is only when schools have exhausted their own internal support mechanisms and expertise provided by the special needs department and classroom teachers including special programmes, extra support in the classroom, pastoral support and parental involvement that external resources will be called upon. In most cases external support services become involved when there are problems that are outside of the school's control or expertise and these would include students' with medical conditions, disabilities, and involvement of agencies such as social services.

In the case of students deemed to have attention deficit hyperactivity disorder, there has been some debate as to whether ADHD actually constitutes a special educational need as defined by the Code of Practice. The Special Educational Needs Code of Practice DfES (2001) defines a special need as a 'learning difficulty, which calls for

special educational provision to be made'. The Disability Discrimination Act, included in the Code, refers to a mental impairment, which has a substantial and long-term adverse effect on ability to carry out normal day-to-day activities.

Although the disorder of ADHD does not in itself automatically qualify as a special educational need, many of the symptoms and associated behaviours outlined in section 7.60 of the Code can lead to learning and/or social emotional and behavioural problems and thus will place ADHD within the context of a special need. It is also true to say that many of the co-morbid conditions associated with ADHD such as conduct problems and learning deficits, particularly reading and language delay (Rucklidge & Tannock, 2002), would place a student with ADHD on the school's register of students with special needs.

As reported above, Attention Deficit Hyperactivity Disorder is a neurological condition that is psychiatrically defined by the American Psychiatric Association (APA 1994) and therefore is located in the highly specialised medical paradigms of neuroscience, neuro-anatomy, neurobiology and psychiatry (Comer, 2004; Carr 1999; Raulin, 2003; Rutter et al, 1994; Taylor, 1999, 2009; Tannock, 1998; Tannock et al, 2006). It is now understood that the disorder can also be affected by social, environmental and psychological factors and terms such as multi-faceted, multi-factorial, multi-dimensional are often used to describe ADHD (Norwich et al, 2002; BPS 2000; Cooper 2008). The disorder is complex and can manifest itself in many different ways. Therefore, as well as specialist doctors such as paediatricians and psychiatrists, a variety of other medical and educational professionals are involved in its identification and subsequent diagnosis of the disorder, such as educational/clinical psychologists and therapists. These professionals work alongside General

Practitioners, clinics/hospitals and with families to help them with the assessment and support for a wide range of childhood problems including ADHD and disorders such as Autism. As described earlier, the medical and educational professionals who are involved in the assessment of ADHD and other childhood' problems often work in clinics and assessment centres commonly known as community child development centres (CDC) or Child and Adolescent Mental Health Services (CAMHS). These centres are sometimes attached to hospitals and work closely with schools, community groups and social services and therefore are funded by National Health Service trusts and/or Local Authorities.

As previously mentioned, ADHD affects mainly school-aged children but can be evident from an earlier age and can persist into adulthood. The disorder is a concern for parents because certain characteristic behaviours that are associated with ADHD are considered to be anti-social and therefore can affect conduct and family relationships. ADHD can also carry with it the social stigma of the child having special needs or a medical condition that is treated with drugs. From the school's perspective, the associated negative behaviours can result in behavioural and learning problems, thus affecting student progress and educational outcome. Teachers and parents also have many concerns over the prescribing of medication and the stigma of children having mental health problems. There can also be concerns by schools and teachers over the issue of extra resources, for example, special programmes and the deployment of Learning Support Assistants (LSA). The initial concerns that a child might be suffering the symptoms or characteristic behaviours of ADHD usually come from parents or from teachers and this can trigger a lengthy and complex process of identification/diagnosis and support involving parents, schools and a number of other

support agencies. Schools have a variety of external specialist services that can be called upon to support both teachers and students. These are typically: Behaviour Support Service (BSS), Education Psychology (EP) Community Development Centres (CDC) Child and Adolescent Mental Health Service (CAMHS)

After reviewing the child's SEN profile to see if there is any pattern of previous behaviour or learning difficulties, the school's SEN co-ordinator should consult agencies such as the behaviour support service (BSS) or the school's educational psychology service (EPS). Professionals from these services, if not already involved, work closely with the school to develop appropriate strategies and curricula.

Professionals from these services will form part of a multi-professional group in tackling the child's problems including school, parents, GPs, counsellors, therapists, learning support assistants, teachers and the child. The strategies employed by these services to identify problems would typically include observation of the child in the classroom, meetings with teachers and parents, the use of behaviour checklists and the development of the Individual Education Plan/Behaviour Support Plan or other special programme. It is only when all strategies have been tried and the problems are still considered to be severe and unmanageable that further referral may be made. If a medical or neurological condition is suspected such as Autism or ADHD the referral will involve medical assessment through services such as Child Development Centres (CDC) and/or Child and Adolescent Mental Health Services (CAMHS). These services are community based and will be staffed by a range of professionals both medical and non-medical. Typically these centres will have doctors, psychiatrists, psychologists, therapists, play workers and counsellors.

Schools have a wide range of services they can call upon to assist them in supporting pupil's learning and family support. In my own experience, the most commonly used of the external services in a mainstream school is speech and language therapists, educational psychology, and behaviour support. However much of this will depend on the numbers of children with SEN, the nature of their special needs and the effectiveness of the internal expertise of staff. In areas where there are high levels of negative social indicators such as high unemployment, single parent families, or high truancy levels, there may also be high levels of social service involvement as well including the relatively new role of family liaison workers who work closely between schools and families, mainly on truancy issues.

As previously suggested, the placing of a child at school action plus level of the Code of Practice is automatically triggered if a child is necessarily receiving any support from an external agency. However the introduction of delegated budgets to schools has caused many of these services to break-up into independent units which means some are under education services, for example, educational psychology, and some are under the medical services, such as speech and language therapy. Many of these services are understaffed or have such heavy caseloads that they are too stretched to be efficient. According to OFSTED (2005), 'at least half the schools reported difficulties in accessing support as a result of staff shortages' (p. 22). OFSTED go on to suggest that 'support from educational psychologists is insufficient and most of their time is spent on statutory assessment' (ibid). It is sometimes unclear to teachers 'what's out there' and how they can access these services, as 'in about half the schools procedures for working with external professionals are unclear and information is not shared effectively' (OFSTED, 2005: 21). Therefore, when making

a referral to these agencies, factors of costs and availability need to be taken into account as well as consideration of support for the child's needs. It is not surprising therefore that I have known cases in which a diagnosis or a statutory assessment of needs can take up to two years to complete, thus flying in the face of the government ideal of 'early identification and intervention'.

The Identification Assessment and Diagnosis of ADHD-beyond the school's phase.

Teachers are sometimes faced with a child who has difficulties that do not respond to the expertise and resources of the school's special needs department. Sometimes these difficulties result in bizarre behaviour or learning patterns that cause concern to teachers and families. The child may be suspected or identified as having a medical or psychiatric condition such as autism or ADHD. This initial concern should instigate a referral for further assessment by specialists and may lead to a formal diagnosis. In this phase of my research, I investigated the role of a child development centre that deals in the assessment and diagnosis of a wide range of childhood disorders. The investigation looked at how children are formally diagnosed as having a medical or neurological disorder and, in the case of ADHD, the rationale for prescribing psycho-stimulant drugs as part of the treatment regime. The medicalisation of children for their behaviour is controversial. This phase of my research examined the processes involved in the identification of a medical/psychiatric condition that may require drugs as part of its treatment. The role of genetics, biology, environment, schools and family are all taken into account in the assessment process.

The purpose of this research phase was to go beyond the work of schools in the identification of attention deficit hyperactivity disorder and investigate how ADHD is actually diagnosed, or not, as the case may be, by doctors and psychologists. The research was conducted at a Child Development Centre attached to a general hospital. A second consideration in this investigation was that diagnosis of ADHD often leads to the prescribing of stimulant medication such as methylphenidate with the brand name of Ritalin (Norris & Lloyd, 2000; Lloyd et al, 2006). This raised a number of questions: first, what was the rationale employed by doctors for using drugs to treat the condition? Second, should drugs be administered to children without the establishment of any brain (neurotransmitter) dysfunction through a brain scan such as MfRI (Magnetic (functioning) Resonance Imaging)?

Neurotransmitter dysfunction in the brain as an underlying cause of ADHD and its treatment by psycho-stimulant drugs such as Ritalin is an area of great controversy amongst parents and professionals. According to Norris & Lloyd (2000: 124) 'In England, between 1991 and 1996, the number of methylphenidate prescriptions increased by over 2,000 per cent'. Cohen (see Lloyd et al 2006:14) states that the prescription cost increased 'from 6,000 prescriptions for stimulants in 1994 to 186,200 in 2000, to 458,000 in 2004 (Prescription cost analysis 2005)'. This equates to a rise in prescriptions of some 7600 per cent. Recent research by the government inspectorate claims that 'in over half the primary, secondary and special schools and in three quarters of the PRUs some pupils are on medication as a result of their difficult behaviour' (OFSTED, 2005: 9). Ofsted go on to state that 'in some of the SLD and SEBD schools up to two thirds of pupils may be on medication' (ibid). The prescribing of medication such as Ritalin to treat disorders such as ADHD is often

misunderstood, particularly by the media and newspapers and this often results in alarming headlines such as ‘fears over soaring use of ‘chemical cosh’ on children’ (Daily Mail, Monday, July 21, 2003) and ‘four British youngsters die after taking Ritalin’ (Mail on Sunday, August 31, 2003) ‘the drug Ritalin is being prescribed to hyperactive children as a quick fix to make their parents’ lives easier’ (Daily Mail, ‘You magazine’ 31 August, 2003). As described in chapters one and two, In simplistic terms, research into the structure and working of the brain has indicated that faulty neurotransmitters, which are small chemical messengers in the brain, are the underlying medical cause of ADHD. Neurotransmitter dysfunction affects the way the brain processes information and deficits in this area of the brain lead to difficulties in maintaining attention and can cause delayed inhibitory response. It is the lack of inhibitory control that can lead to impulsivity and hyperactive behaviour (Tannock, 1998; Grodzinsky, 1992). This research, supported by scientific and medical studies across the globe, has shown that inhibitory response is caused by dysfunction in the frontal lobes of the brain. According to the Quay-Gray model (see Tannock 1998: 70) this inhibition failure is linked to the neuro-anatomical systems of the behavioural inhibition system. The failure to inhibit or delay a behavioural response is seen as the central deficit in ADHD. It has been demonstrated that the neurological under-stimulation and the symptoms of inattention and or hyperactivity caused by these deficits have been shown to be effectively treated with psycho-stimulant medication. In reality, the prescribing of medication such as Ritalin to treat ADHD is a last resort and not the first choice, though, as newspapers would suggest. The prescribing of Ritalin by doctors or any other ‘mind changing’ drug has to follow the medical guidelines such as those laid down by the National Institute for Clinical Excellence (Nice, 2000). Therefore a lengthy procedure of reports, tests, alternative interventions

(such as behaviour management) and assessment will take place before a doctor will prescribe drugs.

Findings of survey

The first centre in which the survey was conducted was a Child Development Centre or CDC. These centres offer multi-disciplinary assessment for children from birth up to adolescence. The team are involved with children who may have a delay in their development, a disability or some other special need. The key person at this centre is the community paediatrician who is responsible for investigating any medical problem and acts as a link to health visitors and education authorities. Other professionals involved in assessment and care at the CDC are: nursery nurses, liaison health visitors, speech and language therapists, clinical psychologists, educational psychologists, support teachers, pre-school advisors, dieticians, social workers, a community nurse (learning disabilities), an audiologist, and an orthoptist. The Child Development Centre team provide ongoing care to families and their children. They help children develop their abilities to the full and minimise difficulties as much as possible.

Data from questionnaire 1

The questionnaire sought to confirm doctors' and psychiatrist's opinions on the underlying medical and biological cause/s of ADHD (Appendix 3). The first two questions concerned the presence of a biological cause (neurotransmitter dysfunction) and whether ADHD is considered genetically inherited. The two centres in which the research was carried out are small and community based but serve a large population

within a local authority in the south east of England. A total of twelve questionnaires were sent (six to each centre) and there were eight returns.

The first question asked doctors whether they considered ADHD had a biological cause, that is, faulty neurotransmitter functioning. All of the doctors who replied to this question (n8) agreed that the underlying cause of ADHD was faults in neurotransmitter regulation. This neurotransmitter theory is supported by a number of researchers from the field of medicine and biology. The neurotransmitter dysregulation hypothesis is the most popular biological explanation for ADHD particularly for symptoms of inattention and hyperactivity (Carr, 2002; Grodzinski & Diamond, 1992). As discussed earlier, neurotransmitters are the chemical messengers that carry electrical impulses between brain cells (synapses). If these messengers are underdeveloped or 'faulty', they can cause difficulties with cognitive functioning. Thus this has important implications for teachers.

Question 2 sought opinions on whether ADHD was genetically inherited. Again there was also full agreement amongst the respondents (n8) that it was genetically inherited. These results are consistent with the current research on the biological underpinnings of ADHD and the neurotransmitter dysregulation hypotheses (Carr, 2002). According to Mc Cracken (2002) 'dysregulation of the dopamine system in the ventral segmental areas of the brain and noradrenaline and adrenaline in the locus coeruleus may be present in ADHD, and it is probably these systems that are affected by drug treatment' (p.377). Tannock (1998) suggests that 'current models of ADHD that are rooted in biological paradigms and emphasise neurobiological, neuroanatomical and genetic

mechanisms are contributing factors to behavioural characteristics. (Tannock, 1998: 68)

Question 3 concerned environmental factors as an underlying cause of ADHD. In reply to this question, there was a split opinion. Five of the doctors agreed and two of the doctors disagreed with the question. One doctor considered that this question could not be answered in such 'black and white terms'. Environmental factors are not necessarily a cause of ADHD but can be significant in maintaining and exacerbating the condition (Norwich et al, 2002; Cooper, 2008). There is also debate amongst researchers that neurological factors are the primary deficit of ADHD and a range of other behavioural difficulties represent a challenge 'to more conventionally held opinion that has regarded such behaviours as primarily stemming from the individual's interaction with environmental factors' (Prior, 1997: 17; Cooper, 2008). Cultural factors can also play their part and 'loss of extended family support, mother blame, pressure on schools, breakdown in the moral authority of adults' and other similar factors are also seen as contributing and maintaining ADHD (Timimi, 2004: 8).

Question 4 asked whether inadequate parenting was seen as a contributory cause of ADHD. There was a strong opinion against this view. One of the doctors agreed that parenting did contribute and six doctors disagreed. One of the doctors felt this question could not be answered in such simplistic terms. Inadequate parenting is often cited as one of the causes of many of society's anti-social problems. Norris & Lloyd (2000) suggest that 'those taking a 'social constructivist' or behavioural approach might claim that parents are increasingly seeking a diagnosis that removes

responsibility from themselves' (Norris & Lloyd, 2000: 135) They go on to suggest that Emotional and Behavioural Disorders (EBD) carry more stigma than the medical label of ADHD and so parents may prefer a label which is less stigmatising. It is also acknowledged that parents sometimes lack social skills and the understanding of the psychosocial factors in ADHD and these are necessary in managing poor behaviour and relationship problems at home and school. (Vulliamy & Webb, 2003). 'Poor coping skills', 'adverse family relationships' and 'critical emotion from parents' are characteristic of hyperactivity and conduct disorder (Taylor, 1994: 298) It is also considered that 'the failure of children with ADHD to internalise rules of social conduct at home and to meet parental expectations for appropriate social and academic behaviour can lead to conflicts in parent-child relationships' (Carr, 2002: 374).

Question 5 sought opinion on psychological factors as a cause of ADHD. Five of the doctors disagreed with this and two doctors agreed. Again, one of the doctors felt she was unable to answer this question in such simple terms. Although doctors do not see the cause of ADHD as psychological per se, it was clear from the questionnaire that psychosocial factors such as behaviour management, parenting and environmental change were seen as part of the treatment of the disorder. Family problems and parental psychological problems such as depression, aggression or alcohol abuse, exposure to marital discord, over intrusive parenting during infancy and coercive parent-child interactions in childhood and adolescence have all been found to have associations with ADHD (Carr, 2002; Taylor et al, 1994). According to Norwich, (2002) and Landrum, (2003) as well as within-child factors that might contribute to a disorder such as temperament and other emotional difficulties, there are factors that

are outside the child's control such as school, curriculum, teaching and teachers, environment and family background.

Question 6 of the first set of questions had an open reply opportunity in order to enable respondents to add a personal opinion on the cause of ADHD. Two doctors gave a reply to this question. The first doctor considered ADHD to be 'an inherited condition in which there is a metabolic disturbance in the frontal lobes of the brain'. This view is widely accepted in research as the underlying neurological basis of ADHD (Batshaw & Perret, 1995; Carr, 2002; Comer, 2004; DSM 1994; Tannock 1998, 2006; Thapar et al, 1999; Grodzinski & Diamond, 1992; Goswami, 2004; James & Blair, 2003; Mercugliano, 1995; Rubia et al; Rutter, 2001; Raulin, 2003; Taylor, 2009) The second doctor who replied to this question had a somewhat different view. The doctor accepted that neurotransmitter function, and genetics contribute to the cause of ADHD but also suggested that environmental factors, parenting and psychological factors 'may produce similar symptoms but not ADHD'. This was a suggestion of co-morbidity or disorders that co-exist with ADHD, but are not necessarily caused by the disorder, such as conduct and oppositional disorders. (Dalsgaard et al, 2002; Gadow & Nolan, 2002; Kadesjo & Gillberg, 2001 Thapar et al, 2001; et al), Reading difficulties (Adams et al, 1999; Rucklidge & Tannock, 2002; et al), Information processing (Tannock et al 2006), Attachment Insecurity (Clarke et al 2002), Academic achievement (Brandau & Pretis, 2004; Merrel & Tymms, 2001), and Bipolar disorder (McNicholas & Baird, 2000). The paediatrician interviewed in this research considered co-morbidity to be evident in the region of 70 percent of ADHD cases presented to her, a figure supported by Tannocks' 1998 review, in which

she suggests that ADHD rarely exists alone and that co-morbidity rates can be as high as 80%.

There was full agreement on Question 7 and 8 concerning behaviour management and environmental changes being used in the treatment of the disorder's symptoms. It is widely accepted that children with ADHD related symptoms such as conduct problems or aggression should be subjected to strategies to help them manage their difficulties. This would also include social and environmental changes, as these are known to maintain or exacerbate difficulties. (Brandau & Pretis, 2004; BPS, 2000; Lovey, 1998; Norwich et al, 2002; Prior, 1997; Sava, 2000) From my own professional experience of working in special schools for pupils with social emotional and behavioural difficulties, behaviour management programmes using sanctions and rewards were often used. Pupils would be subjected to a highly structured teaching environment where they were encouraged to take responsibility for their own behaviour. The use of sanctions and rewards meant that pupils could choose a positive outcome to their behaviour (reward) or suffer a consequence for inappropriate or negative behaviour (sanction) A token reward system is often used where pupils gain points or credits that can be 'spent' on desirable activities such as outings or computer time. A consequence would be a loss of privilege or reward rather than a punishment.

Question 9 on better parenting as a treatment for ADHD had a split response. Four of the doctors agreed with this question and four disagreed. The issue of the effect of parenting on a range of childhood disorders is an area of great debate amongst professionals. In many ways, this question was similar to question four that asked if parents were considered to be the cause of ADHD. Parents do not necessarily cause an

illness or a disorder but can contribute to the maintenance of that disorder through a lack of appropriate parenting or social skills and sometimes try to absolve themselves from their responsibility by seeking a medical cause to explain their child's behaviour (Norris & Lloyd, 2000; Lloyd et al, 2006). Also disorders such as conduct disorder and oppositional disorder are often found in families where there is a high degree of disharmony. Children who suffer with these disorders have difficulty with social adjustment, thus exacerbating problems (Taylor, 2004). Some see 'ADHD as a scapegoat for many individual and societal dysfunctions' (Sava, 2000: 149). From my experience of working in special schools I noticed that a number of pupils came from what would be termed 'dysfunctional families' or were in foster or local authority care. This meant they had probably experienced a lot of negativity in their lives and this had an impact on their self-esteem and behaviour. The use of behaviourist techniques that gave them safety, security and structure often helped them to overcome their difficulties to a degree. However, behaviour at times was such that additional methods of 'treatment' would be required and in many cases this involved a prescription of stimulant medication especially where a diagnosis of ADHD was present.

Question 10 concerned the treatment of ADHD with drugs. All of the doctors surveyed agreed that ADHD should be treated with drugs (100%). As discussed earlier, the symptoms of ADHD (Inattention, Impulsivity and Hyperactivity) are often treated with drugs because psycho-stimulant drugs such as methylphenidate (Ritalin) have been shown to be beneficial in treating these conditions (Carr, 2002; Taylor, 1994) However, other treatments are considered by doctors and CDC and CAMHS centres use various alternative treatments such as behaviour therapy/modification and

family therapy as well as medication to treat and control underlying symptoms. According to Taylor (1994: 300), 'the suppression of hyperactivity is only a means to a goal, not an end in itself, so medication should be seen as an adjunct to other therapies'. The theories surrounding ADHD and the dysfunction of neurotransmitters (chemical messengers between brain cells) underlie the rationale for using stimulant medication (Shaywitz and Shaywitz, 1995; Batshaw and Perret, 1995). As reported in chapter 1, Goswami states that, 'brain cells (or neurons) transmit information via electrical signals, which pass from cell to cell via the synapses, triggering the release of neurotransmitters...problems arise when there is a faulty connection between the synapses and neurotransmitters (Goswami, 2004:1) These 'faulty' transmitters can be helped through the use of stimulants.

Question 11 concerning the treatment of ADHD had an open response and four of the doctors replied to this question. The questions concerned the use of behaviour management, environmental changes, better parenting and drugs in the treatment of ADHD. One of the doctors considered that 'a combination of the above depending on the child and circumstances and resources available' was a factor. Another doctor thought 'a combination of any/all the above as appropriate'. A third doctor replied that 'combined therapy, drugs, environment etc' was appropriate. And the last doctor who replied thought a 'combination of behaviour management strategies and drug therapy' was the best treatment regime. This use of a combination of strategies to help overcome symptoms is widely accepted by educational and medical professionals. According to the British Psychological Society (BPS) 'ill informed and unhelpful ways of portraying ADHD, for example, as a disorder determined solely by either

biology or environment should be challenged; biological, psychological, social and cultural aspects should be considered in all cases' (BPS, 2000: 18).

Question 12 concerning the treatment of ADHD using drugs provoked a mixed response. The question asked if ADHD is a biological/medical condition, should it only be treated with drugs when a doctor has fully, that is through a brain scan, diagnosed the existence of a neurological disorder? Six of the doctors agreed to the proposal in this question and two of the doctors disagreed. The testing or brain scanning for neurological dysfunction is not feasible in every case where ADHD is suspected. During my interview with a community paediatrician at the CDC centre, I asked about brain scan evidence in diagnosing ADHD. I discovered that doctors depend on clinical research evidence, symptoms and family history when making a diagnosis of an illness or disorder and not through individual testing in every case presented to them. However, there are circumstances where patients will be sent for a scan for certain conditions where there is doubt over the cause of an illness or neurological functioning and where there are accidents involving head injury. However, this would not be the case in the assessment and diagnosis of ADHD on a day-to-day basis. Doctors assessing for ADHD would also consider and take into account any other related disorders that might co-exist with the disorder and will look at family history for any possible genetic relationship. Under normal day-to-day practice, doctors examine the patients' symptoms and match these to known clinical evidence in order to make a diagnosis. However, there are certain conditions, especially those involving neurology that, would require a more specialist input for an accurate diagnosis to be made. During my interview with the community paediatrician, I asked whether a family GP would normally make a diagnosis of

ADHD. This doctor informed me, that under the terms of ‘best practice’, a GP would not normally make a diagnosis of ADHD but would refer the patient to a specialist for a detailed assessment/diagnosis of a ‘condition’ or underlying medical cause. This research thesis examined this process in going beyond the assessments made by teachers and educational psychologists for pupils with special needs.

Discussion of key findings from Questionnaire 1

This was a small-scale survey conducted at two centres. However, these two centres serve a large education authority and employ highly qualified personnel such as specialist doctors, nurses and therapists, psychiatrists and psychologists who are involved in the assessment and diagnosis of a wide range of childhood illnesses and disorders. The results obtained from this survey indicate that doctors clearly view the cause of ADHD symptoms to be a result of an abnormality in the functioning of the brain (neurotransmitter dysfunction) and that it is genetically inherited. This biological view held by doctors is widely supported by research on the underlying cause of ADHD. According to Carr (2002: 377) ‘The neurotransmitter dysregulation hypothesis attributes the symptoms of ADHD to abnormalities in neurotransmitter functioning at the synapses affected by psychostimulants which ameliorate the symptomology of ADHD’. The wording of the questionnaire was designed to establish whether respondents thought there was a biological cause and thus whether respondents felt this would ‘justify’ the use of stimulants in the disorder’s treatment. Although the doctors in this survey agreed on biological and genetic issues as cause (questions 1, 2, and 10) they also advocated a number of other factors in the treatment of ADHD symptoms (inattention, impulsivity, hyperactivity) including a combination of the following: behaviour management, parenting issues, family therapy and

environmental change. The interviews held at the CDC centre with a paediatrician and clinical psychologist also supported these findings, in that, when a child is diagnosed with a medical condition, a range of therapies and combinations are considered alongside the use of medication.

The second centre in which the survey was conducted was a Child and Adolescent Mental Health Centre. CAMHS provide a specialist service for children and adolescence (up to school leaving age) and their families. Help is available for serious concerns about behaviour, emotional problems or relationship difficulties. The help from these centres is through advice, individual therapy, or through child/family discussions to promote better communication and understanding. CAMHS centres also offer a consultation service to advise other professionals in supporting young people's difficulties. Children and adolescents are referred to these services by the family doctor and other professionals working in health, education or social services. Often, professionals at the centres have already been involved in providing some support to families and schools. The type of service offered by these centres is considered multi-disciplinary and the team is made up of many different professionals including child psychiatrists, community nurses, clinical psychologists, specialist social workers and family and individual therapists.

Data from questionnaire 2 (CAMHS)

A questionnaire was administered to the CAMHS centre seeking the opinion of professionals on the possible cause/s of the rising prevalence of the disorder (see Appendix 2). The questionnaire was deliberately short in its structure in order to be

specific. The intention was to support the questionnaire with interviews, which would enable me to elaborate on the questionnaire's responses. A total of six questionnaires were sent and there were five returns.

The first question sought opinion on the apparent increases in the identification of ADHD. Question two had five subsections on some of the possible causes of increased prevalence. Question three had an open response for personal comment. The questionnaire was supported by interviews with key professionals at the centre for Child and Adolescent Mental Health Services (CAMHS).

Question 1 asked for opinion on the recent increase in the identification of ADHD. Four respondents agreed that in their opinion there had been a reported rise in the prevalence of ADHD. One of the respondents disagreed. According to Tannock (1998), 'ADHD is the current label for one of the most prevalent and intensively studied syndromes in child psychiatry' (p.66). This has contributed to an increased awareness of the disorder and the perception of ADHD as an illness that affects behaviour. Inclusion of ADHD in the American Psychiatric Association's (APA) Diagnostic and Statistical Manual of Mental Disorders (DSM IV, 1994) with its broad categories and three subtypes of behavioural symptoms have also added to increased identification and diagnosis. As a consequence of this inclusion in the APA manual there is a wider recognition of ADHD symptoms and characteristic behaviours, teachers, parents and other professionals are now much more aware of the existence of this syndrome. The inclusion of ADHD as a biopsychosocial disorder by the BPS and NICE has further added to its recognition. This has led to increased publicity by newspapers and other media, which has raised awareness and 'common knowledge'

of ADHD. According to Lloyd et al (2006), there is 'clear evidence of a significant move towards greater use of psycho-medical explanations, apparent in the 'new medical model' and the 'biopsychosocial' models (p.216). This view is also supported by a number of other researchers. (Slee,1995, 1998; Cooper and O'Regan 2001; Cooper, 2008; Thomas and Loxley, 2001)

Question 2 asked for opinion on the possible reasons for the increased prevalence of ADHD. This question contained five subsections: methods of diagnosis; increased awareness; definition; labelling by teachers; labelling by parents. All of the respondents agreed on methods of diagnosis as being a contributory factor in the disorder's prevalence. Respondents also agreed that increased awareness of the disorder was a contributing factor in prevalence. On the question of whether a 'new diagnostic definition' was a factor, only three of the respondents agreed with this. However, in 1993 the World Health Organisation (WHO) published its International Classification of Diseases manual (ICD 10) and included 'hyperkinetic syndrome' which closely resembles the combined type of ADHD. Further more, the term ADHD to describe inattention, impulsivity and hyperactivity first appeared in the APA, DSM manual in 1994 and has much broader categories to describe behavioural symptoms thus contributing to increased prevalence and diagnosis. According to Norwich et al, 'between two and five per-cent of British school children are believed to experience this condition' (p.182) A significant finding was the labelling of the disorder by teachers and this was agreed by four of the respondents, as was labelling by parents. According to Reid and Magg (1997) 'for many parents of children diagnosed with ADHD...because they have located the cause of their child's distress...they, as parents are not to blame (cited in Norris & Lloyd, 2000: 132). Lloyd et al (2006)

argue that 'ADHD can sometimes offer a special status to young people and their parents, offering 'labels of forgiveness'-this diagnosis saves them from blame, from being branded bad' (Lloyd et al 2006: 216). One of the difficulties with the behaviours associated with ADHD/hyperkinetic syndrome in the DSM and ICD manuals is that the manuals focus on behaviours such as hyperactivity and conduct. This can inevitably lead to an assumption that these syndromes are about poor behaviour when they are really about attention difficulties. Thus, when children display negative behaviours such as aggression/boisterousness, these are sometimes perceived, by teachers and parent's, as having ADHD. However, they are more likely to have a related (comorbid) disorder such as those affecting conduct (CD) or oppositional defiant disorder (ODD). However, excessive hyperactivity, which can be related to ADHD could be perceived by some as unacceptable behaviour.

Only one of the respondents replied to question three 'any other cause of prevalence' and this was a psychiatrist who considered that cultural factors leading to higher expectations for male children to achieve academically and to stay at school was a factor (Stolzer, 2009). The doctor also cited relationship breakdown, preference of biological fathers at home, social cohesion and identification with teachers as being contributing factors to the disorder's prevalence. This cultural viewpoint contributing to certain disorders is also supported by Timimi (2004: 8) who commented that in 'modern western culture many factors adversely affect the mental health of children and families including: loss of extended family support, mother blame, schools, breakdown in moral authority, market economy value systems that encourage individuality, competitiveness and independence.

Discussion of key findings from Questionnaire 2

It was clear from this second questionnaire that medical, psychological, cultural and social factors such as those involving the family are considered to be contributory factors in the cause and rising prevalence of ADHD. Improved methods of diagnosis using family history and a range of other assessment procedures such as reports from schools, parents and family doctors have helped to increase the identification rates of a range of childhood disorders including ADHD. Increased awareness by parents, schools, doctors and other professionals, including media coverage to a range of childhood conditions that affect development and learning has also led to the perception of a rise in the prevalence of these disorders. Another factor in the perception of the disorder's rising prevalence is the increase in the prescription of medication to treat the disorder (Cooper, 2000; Cohen, 2006; Norris & Lloyd, 2000; Lloyd et al 2006).

As reported earlier, other factors that cannot be overlooked and need to be considered with regard to prevalence include the co-morbid relationship to other conditions such as Conduct Disorder (CD) and Oppositional Defiant Disorder (ODD). Sometimes these conditions are mistakenly attributed to being ADHD. These conditions are relatively common in school-aged children but can occur with or without ADHD (Gadow & Nolan, 2002). Conduct Disorders are more influenced by environmental factors and social adversity whereas 'AD/HD is more associated with neurodevelopment problems' (Thapar et al, 2001: 227). In reality, the prevalence rates of ADHD vary depending on gender and age. ADHD is more prevalent in boys than girls and in pre-adolescents than in late adolescents (Carr, 2002). In a review of epidemiological studies by Carr (2002) there was a prevalence rate of 1-19 per cent

but this was dependent on diagnostic criteria and the demographic characteristics of the population studied. Timimi (2004) comments on hugely differing prevalence rates between 0.5% to 26% and cites major differences in the way children from different cultures are rated for symptoms of ADHD and rating differences between countries. According to NICE (2000) somewhere in the region of 5% of school-age children in England and Wales are likely to meet the criteria for ADHD and of these around 6% (the most severe types) will receive medication. Thus, many factors need to be taken into account when assessing the prevalence of an illness or a disorder. However, there are also many other factors that can give the perception of an epidemic, not least the role that misconception plays and the reporting by the mass media.

Interviews conducted with doctors, psychologists, therapists, and other support staff at the CDC and CAMHS centres

According to Cohen, Manion & Morrison (2001), interviews 'move away from seeing human subjects as simply manipulable and data as somehow external to individuals, and towards regarding knowledge as generated between humans, often through conversation' (p.267) Interviews were therefore conducted at the two centres in order to elaborate on the replies and to consolidate findings from the other sections of my enquiry regarding biological cause, prevalence and the justification for using drugs. According to Cohen et al (2001) Interviews are intersubjective and enable participants to 'discuss their interpretations of the world in which they live, and to express how they regard situations from their own point of view' (ibid)

Two phases of interviews were held. The first phase was conducted at the Child and Adolescent Mental Health Services (CAMHS) centre and concerned the possible

cause/s and perceived rise in the prevalence of ADHD. The interviews supported the findings from the questionnaire on the prevalence of ADHD and the perception of increases in number. The second phase of interviews were held at a Child Development Centre (CDC) and sought the opinions of a community paediatrician and a clinical psychologist on the methods of identification, assessment and diagnosis of ADHD, and the use of drugs in the disorder's treatment.

As mentioned earlier, these centres employ a range of professionals who are involved in the assessment and treatment of a wide range of childhood and family problems and are community based. The centres are multi-disciplinary and work in close co-operation with schools, social services and other community centres in supporting families and professionals. Four members of staff were interviewed at the CAMHS centre: an Art therapist, a social worker, a nurse specialist (ADHD), and an RGN nurse. The interviews were arranged by the centre administrator and with the consent of staff. Unfortunately, none of the doctors or psychiatrists was available for interview at the CAMHS centre.

Analysis of interviews (CAMHS)

The first question concerned the diagnosis of ADHD and asked in which way changes and improvements in the methods of diagnosis had had an impact on increased prevalence of the disorder. There was a range of responses to this question, from an awareness of increased diagnosis to increased recognition by doctors and media coverage. The nurse specialist interviewed commented that 'undoubtedly there is a large increase in diagnosis...largely in the last five to seven years' (Appendix 9). A

social worker at the centre commented that 'I think it is more widely recognised by general practitioner's level and upwards, with doctors realising that ADHD is a condition', and that 'it's a lot more, you know, highlighted in the media'. The nurse went on to suggest that there is a greater awareness of ADHD by parents due to the wide availability of books and quoted to me from a recent book on ADHD she had been reading by Dr Christian Green. She also mentioned that ADHD had been featured on programmes such as 'This morning' and therefore said, 'its got quite a high public profile and media attention'. The social worker interviewed felt that Britain often followed in the wake of large diagnostic programmes such as those in the United States of America. An important observation from the social worker was a social constructivist view of childhood disorders: 'you know how to conform to a certain set of behaviours and you know society accepts you. It's easier if the child or young person isn't conforming to that mould so that we've got the pathology we describe'. This is an important point to make in the identification and sometimes misconception of ADHD and the perception that a disorder is present, regardless whether an official diagnosis of any disorder or illness has been made. According to Carr (2002), 'epidemiological studies of ADHD report overall prevalence rates varying from 1-19 per cent. The identification and prevalence of ADHD is further enhanced by its inclusion in the ICD and DSM manuals of mental disorders and their broad categories of symptoms attributed to the disorder. Further increases in prevalence can also be a result of a range of other disorders such as those affecting conduct that can co-exist with the symptoms of ADHD. As mentioned earlier, these co-existing disorders are described by psychiatrists as being comorbid and according to Mc Nicholas (2000) this confusion over the distinctness of a variety of disorders

found in children and adults is a major problem for diagnosis and consequent treatment by clinicians.

The second question concerned the prescription (particularly by family doctors) of psycho-stimulant drugs such as Ritalin for the control of hyperactivity and how this has affected the prevalence of the disorder. The Art therapist interviewed by me commented that 'if anything the increase is caused by lack of funding and because of a lack of people like me'. This comment was an obvious suggestion about the alternative, to drugs, of treatments such as Art Therapy, as an area that this professional is involved with. The Art Therapist's view provides an important point regarding alternative remedies and interventions: Art Therapy is one of the alternative treatments/therapies in which professionals at CAMHS centres are highly involved. The nurse specialist felt the increase in prescription of Ritalin was 'in line with increased diagnosis' but also felt that 'it may be that parents are looking for the diagnosis and perhaps putting pressure on GPs'. She also held the view that sometimes parents may be looking to drugs as a means of 'social control' for behaviour. The social worker at the centre felt that there was a concern about the over prescription of medication in some cases and that 'there is a concern about errant prescription of Ritalin and other medications for ADHD. She also commented that 'Equally you can't in many cases argue with the successes that it does have for a lot of people so...I'm in two minds'.

The final question sought opinion of Ritalin as a means of 'social control' in the management of behaviour in children. The use of medication to control behaviour is an area of concern amongst professionals and it is felt that pressure from parents

could lead to misuse. There is also concern that some parents place pressure on doctors to prescribe medication for a range of negative behaviours that may, or may not, be related to ADHD rather than consider therapeutic intervention (Cooper, 2000; Prior, 1997; NICE, 2000). The comment by the Art therapist on the use of medication for ‘social control’ of behaviour was somewhat contradictory because she said ‘I don’t think it (Ritalin) is a method of social control’, but then went on to say that ‘If the mother is unsupported and the partner is on the dole Ritalin may be the best solution’. The therapist did go on to comment that ‘If there were more resources the mother could be better supported’ which suggested a preference for family/therapeutic approaches rather than medication. The social worker considered, ‘there is an element of social control because by prescribing that medication you’re in effect making the change in the person’s behaviour whether it’s positive or negative’. This is a relevant point to make because the prescribing of drugs such as Ritalin can have a beneficial effect on children’s concentration and behaviour regardless of any diagnosis for illness. The nurse specialist was aware that some of the children in the school she supports were diagnosed with ADHD and were on Ritalin. She went on to comment that ‘the teachers, classroom assistants and parents have been amazed by the enormous change in them’, also that ‘obviously the improvement in behaviour and improvement in their work and concentration, and what they’re able to achieve...is undoubtedly marked in children who have that diagnosis’.

Discussion of key findings of Interviews (CAMHS)

Professionals working at child, adolescent and mental health services centres are involved with the identification and treatment of a wide range of childhood,

adolescent and family mental health problems. These centres use a holistic approach in the identification, diagnosis and treatment of mental health problems. Professionals who work at these centres come from a range of backgrounds both medical and non-medical and therefore have a range of views on how best to treat child and family problems. The general view was that a range of therapeutic and medical treatments should be used.

There was a general agreement amongst staff that the rise in prevalence of disorders such as ADHD was due to better knowledge and awareness of the disorder, leading to higher rates of identification. Increased parental knowledge through books, newspaper articles, T.V. and radio also contributed to increased awareness, identification and diagnosis of ADHD, albeit sometimes incorrectly. Professionals at the centre considered that, increases in the use of medication for ADHD was in line with increases in the diagnosis of the disorder. However, these centres deal with a range of alternative treatments and therapies in treating child and adolescent disorders and mental health problems and take a holistic view to treatment. One of the professionals interviewed commented that Ritalin is beneficial in improving concentration and schoolwork regardless of any identified pathology. The paediatrician at the CDC centre also supported the view that the psycho-stimulant drug Ritalin (methylphenidate) can have a beneficial effect on the concentration of most young people if prescribed. There was also a suggestion that doctors are sometimes pressured by parents to prescribe medication for controlling behaviour that may not be caused by ADHD or related to the disorder.

The comments and replies made by staff at the CAMHS centre are significant for teachers and others involved in education. The prescribing of drugs is controversial (Norris & Lloyd 2000; Lloyd, Stead & Cohen 2006; Rey & Sawyer, 2003) and the use of alternative methods of treating childhood disorders such as therapy and behaviour management are important. From my own experience of working with children with emotional and behavioural difficulties including those with a diagnosis of ADHD, many different strategies will be employed to support the pupils' needs. However, when pupils are suffering from more severe symptoms of impulsivity, depression or hyperactive behaviour psychosocial interventions such as behaviour management are not always sufficient on their own. A combination of drugs and other interventions is often very successful. According to NICE (2000) drugs such as methylphenidate (Ritalin) is recommended for use as part of a comprehensive treatment programme for children with a diagnosis of severe ADHD. According to Cooper less severe forms of ADHD 'are likely to require interventions that focus on the psychology of the child...rather than on the child's neurology' (Cooper, 2000:3)

Analysis of interviews (CDC)

Two members of staff were interviewed at the Community Development Centre (CDC). One of the staff interviewed was a clinical psychologist and the other a community paediatrician. The purpose of the interview with the clinical psychologist was to ask her opinion and views on several matters concerning ADHD and to clarify her role in the process of assessment and diagnosis of childhood disorders. Opinion was sought on the identification and diagnosis of ADHD and its identity as a biological, psychological or sociological phenomenon. The psychologist was also

asked about her views on ADHD as a developmental disorder that will be grown out of over time and her opinion on the use of drugs and the rationale for using them. The psychologists' opinion on the neurotransmitter dysregulation theory and whether she considered this to be the underlying cause of ADHD was also sought.

Analysis of Interview 1. The clinical psychologist

The first question concerned the role of the clinical psychologist in diagnosing ADHD and its establishment as a neurological disorder (Appendix 10). The psychologist commented that, 'we (psychologists) don't have a direct role in the diagnosis as such' and, further, commented that 'their role is in supporting parents and schools in the management of specific behaviours as presented'. Psychologists in general look at how children relate to the influence of environment and also take into account other predisposing factors that can affect an individual's conduct. The psychologist went on to comment that 'if we really suspect a child of having ADHD we would refer them to the paediatrician for an opinion but that would need to be to be a very severe case where the child has exceptional problems in school'. I asked her at this point if psychologists had any involvement in the administration of the Child Behaviour Checklist to schools (Achenbach, 1991; Conners, 1997). The psychologist commented, 'we ask schools to look at Child Behaviour Checklists, and in the case of parents, we don't give the checklists out'. I was surprised at this comment because it was my understanding that the psychologist was responsible for administering child and parent checklists used for the monitoring of behaviour. I queried this with the psychologist and she commented that 'we only ask the parents and schools, with a view to tuition, and paediatricians to give them out'. I then informed the psychologist that I thought, initially, educational psychologists looked into the behavioural traits of

young people and then, if a medical condition was suspected, referred them to a paediatrician for medical assessment. The psychologist commented that, 'we look at behaviour and if we really feel there is something triggering that behaviour and it is very severe then we will refer to a paediatrician'. The psychologist suggested that in most instances children who are referred by schools are those with 'given characteristics of ADHD' and then 'we look at those characteristics and tend to work with those characteristics' (DSM IV, 1994). On the point about referral to a paediatrician, the comment made by the psychologist was in line with the agreed procedures as outlined in the DfES (2001) Code of Practice. She further commented, 'we then asked the school to make a referral through the School Based Review (SBR) to a paediatrician' but, 'we wouldn't refer directly, it wouldn't be a direct referral on our part'.

The second question concerned the psychologists' views on the identity of ADHD as a biological, psychological and sociologically defined phenomenon and sought her opinion on whether it was the upbringing by parents or environmental factors that had a part to play in the disorder's manifestation. The psychologist commented that in her own experience and those of her colleagues 'we seem to identify a whole range of factors for these children' and ultimately 'we tend to work with behaviours (as presented) rather than look at the root of the cause'. She then went on to suggest that 'if there is a very clear emotional/psychological reason we would try and steer school aims into working out ways of supporting the child'. In a further comment on identification procedures, the psychologist stated that their role is to 'to look at the picture as a whole, look at the severity and if the condition is very, very severe then we may asked the in-school review to think what possible solutions they may have

and how to best cope with this child '. She also commented further on the issue discussed above that one of the solutions may be to refer to a paediatrician. I asked if psychologists look specifically for the behavioural characteristics of ADHD and other similar disorders. She commented that, 'basically we are supporting the school and helping it to manage'. I then asked the psychologist about co-morbidity and the relationship of ADHD to other disorders (Feinstein, 1970) and how this has an impact on the psychological context in identification. The psychologist suggested that the context was more in line with psychology and 'the impact it's having on the child's learning in school' and, 'if the child is having difficulties with impulsivity and other difficulties we make suggestions as to how the school could manage that'. She also suggested that, 'clearly if it's a child who's having difficulties working with a group of children, we make observations and suggest how the child can be supported'. Also, 'It can be simple suggestions like using headphones/tape recordings to do their work'. She went on to comment that 'our job is really to support the child's learning with the child's difficulty... what is it that's preventing them, impulsivity? hyperactivity? It's actually looking in terms of what's in the child's characteristics that impact on the child's learning, rather than actually looking at the cause as such' (Goswami, 2004). The psychologist then commented on some of the characteristics that can contribute to childhood disorders such as ADHD and how the school can be helped to think about contributing factors. 'Sometimes it may turn out to be poor adults', 'or medication', 'it can be emotional, it can be attention seeking behaviour', 'it can be attention leading behaviour', 'it can be circumstances of the child's background leading to a difficulty', or 'it can be other medical difficulties like autism'. An interesting final comment on characteristic behaviours was, 'I bet the medical profession will agree that ADHD exists with a lot of co-morbid features like autism and various other

problems'. I asked the psychologist if co-morbidity is what makes ADHD so difficult to define? She said, 'that's the problem and it makes it very difficult to be clear as to medical aspects'. I sought further answers on the co-morbid aspects of ADHD and the difficulties researchers have found in finding a distinct cause. The psychologist suggested a number of psychosocial factors that are usually present in referred cases with ADHD such as, 'coming from extreme backgrounds', lack of stability where families are really struggling'. I asked for some clarification on aspects of dysfunctional families and she added that, 'there are a whole range of factors: it could be emotional problems, it could be errant partners or a single parent trying to manage on their own'. Also, 'There are so many aspects that are involved that are not medical in nature. I would say more often than not we rarely look at a child and say this is a pure medical difficulty, 'let's refer to a paediatrician'. The psychologist did concede that in some cases there may only be one possible solution, one possible way of supporting the child and commented that 'in terms of medication many children are better on Ritalin, I think we have all seen the impact of this'. We discussed the issue of ADHD and its relationship with behavioural problems. The psychologist commented that 'ADHD in itself shouldn't create behaviour problems, it only creates them within a learning context' and, 'a lot of parents, although they do have problems with their children, they don't seem to experience the same level of difficulty a child has in a social context' (Merrell & Tymms, 2002). I asked the psychologist if she was suggesting that behaviour depends on context and she commented that, 'yeah-if a child is expected to do something such as line-up neatly or in a straight line, maybe those are the times'. I asked the question about 'situational specificity' where behaviour in one context such as the home may be different from behaviour at school and vice versa. The psychologist commented that, 'a lot of the time these children

with ADHD can concentrate well on certain things such as game-boys or play stations. They have got concentration for specific aspects that interest them'. She went on to suggest that a dilemma is created when a child is not interested or bored or because the child does not want to do what they have been asked to do. (Goswani, 2004)

In question three I asked for the psychologists' views on ADHD as a developmental disorder that children will probably grow out of over time and as their brain matures and becomes fully developed. The first comment made was that she had not 'read the research to show that they (ADHD sufferers) decrease with time'. I asked about the age range dealt with at the clinic and suggested it was perhaps 5-11 years. The psychologist informed me that the age of students is quite broad, and that 'children as young as 2 or 3 years have been identified as having quite severe levels of ADHD'. I then asked about an upper age group for young people with the disorder. The psychologist said that it can go on to 15 or 16 years of age but does expand across the whole age range. Also that, 'many secondary schools have a very large number of youngsters that they want to classify as having ADHD characteristics 'my experience hasn't been that it goes away with time'. I suggested to the psychologist that in late teens and early twenties there seem to be fewer reported cases of the disorder. The psychologist commented that, 'I don't know what happens to them after that but they certainly are evident throughout the secondary phase. If that is the case, it lessens as they get older, it could be that getting a job is more satisfying than the academic curriculum, it's no longer the response they need to make'. I then asked if the CDC centre tends to get younger children referred to them rather than adolescents. She commented, 'the reason we don't get older children is the CDC has closed its books,

it has so many children waiting to be seen, the waiting list is very, very long and the CDC has closed its list to certain secondary aged children'. She went on to say that, 'I think the feeling here is it's probably more useful to deal with the younger children rather than somebody of 15-16 years of age on the brink of leaving school. How much difference can you make with children of that age? That's the general feeling'. It appears from this comment that the problems associated with NHS funding of key services and the practice of prioritisation extends across all service sectors including clinics and hospitals.

Question four was an important question for the purposes of this study and sought opinion on the use of psycho-stimulant drugs to treat a disorder that may, or may not, be caused by a neurological dysfunction. The psychologist commented on the 'positive effects' that she had seen in children on Ritalin and how this had fostered a positive relationship with parents where there had been a problem with behaviour. She also voiced a caution on the use of Ritalin: 'I think it can actually be useful but my anxiety is it is actually given out to a lot of children'. I then put forward my own hypotheses on the use of the drug, querying whether Ritalin should be used only in cases where a neurological disorder has been diagnosed. The psychologist commented that in her understanding of the medical facts 'nobody has established where these are' and, 'all I know in respect of Ritalin is it's a very theoretical concept and that the medical diagnosis has been so problematic'. She then went on to suggest, 'Ritalin does have an impact on children: it does help with attention'. I asked the psychologist if she thought the prescribing of Ritalin was on a trial and error basis. The psychologist commented that, 'In a lot of places it seems to work like that because the behaviours are sufficiently severe then you consider...let's give it a try'. However, the

psychologist did voice a concern, 'my concern is parents feel: what a relief, my child's on medication, we don't need to do anything else' (Reid & Magg, 1997; Lloyd et al 2006). In a further comment, she said, 'you give the medication and then there's a programme alongside, so parents and children can work on a programme together'. Also, 'schools and the child can work together on how best to support this child'. On the specific point of neurology and medical evidence, the psychologist said, 'without a doubt I have seen the children in our experience and with colleagues, where there is very clear evidence of very significant learning difficulties with these children with ADHD (Tannock, 1998, 2006). It would appear with these children that there could be a medical reason but they are very few and far between. They are of course the very, very severe ones'. She went on to further comment, 'there are a lot with a medical diagnosis, not many I would say have the very evident criteria or look about them of a neurological disorder...yeah brain disorder and it's quite frightening!' I came across a little lad of six I asked him why I was going to see him he said, 'because my brain is damaged'. I think for a young child of six to be given that message is maybe a little erroneous'. She went on to say that 'I think the doctors here are very good they tell the children they are given medication to help them concentrate it's nothing to do with behaviour, nothing to do with brain damage, it's just they are finding it difficult to concentrate'. I asked the psychologist about the effects of negative reinforcement and the effect of parents, and sometimes teachers, telling children they are naughty or badly behaved. She commented, 'in many families that I've worked with, if they give a very negative image of their child it tends to hand down to the child'. She also suggested that another aspect is 'children actually want attention and they don't mind how they get that attention. If their way of getting attention is being badly behaved, and doing very negative things many would prefer to get attention being naughty than

getting no attention'. The psychologist then outlined the programmes that the centre uses to support children and their families with issues surrounding parenting and behaviour, including ADHD and anger management. Basically, the CDC centre offers six sessions with a focus on anger management issues and then parents are offered six sessions where they are given the strategies to support their children. Again there is clearly an emphasis on behaviour management and therapy used alongside any medication that might be prescribed.

The final question asked for the psychologist's view on the theory that faulty neurotransmitters causing a lack of inhibitory control and impulsivity are responsible for ADHD (Tannock, 1998). The psychologist supported this theory and qualified her views of the problem in children in that, 'I'm certain there are transmitters in the brain that need to be developed. I wonder sometimes whether children haven't experienced that development'. She went on to add that, in her view, another factor was a lack of parenting skills in managing and encouraging appropriate behaviour that can lead to impulsive behaviour in children. She also suggested that sometimes Ritalin is used to bridge that gap. The psychologist then commented on something we discussed earlier regarding whether children grow out of certain behaviours through the process of maturity: 'I suppose what you asked earlier about children growing out of it (ADHD) I suppose that could lend itself to that way of thinking. It could be immaturity of neurotransmitters, they haven't had the opportunity to develop them...they haven't had the support to develop them'. I suggested to the psychologist that research indicates that the brain reaches maturity in late teens and early twenties and that this lends itself to the theory that, in many cases, as children mature, they grow out of certain 'childhood' disorders. The psychologist suggested that it might not simply be a

developmental problem, it could be an emotional problem that's responsible for behaviour. She went on to suggest that there can be many reasons to explain certain behaviours in children and therefore it's difficult to be clear as to cause. Emotional immaturity, complex family backgrounds, lack of focus and copying of boisterous behaviour by siblings are all factors to be considered. I asked about issues concerning lack of parental involvement perhaps through both parents being at work or the problems of single parents having an affect on family life. The psychologist commented, 'I know many of the doctors here recognise ADHD type features in the parents. There could also be social emotional factors as well; there are lots of issues to think about'.

Discussion of key findings from the interview (Clinical Psychologist)

Clinical psychologists are not directly involved in the clinical/medical diagnosis of childhood disorders or illnesses. However, they have a very important role in the assessment of a child's social and educational needs and in supporting young people and their families with a range of strategies to alleviate the problems that are caused by ADHD and other disorders. The clinical psychologists at this centre also work closely with community paediatricians and other professionals in developing programmes of support for a wide range of childhood conditions that can affect relationships with parents and other adults, peer relationships and learning outcomes. In order to support vulnerable children and their families, clinical psychologists take a holistic approach to the difficulties of young people they are presented with and take into account many different factors in their assessment of their problems. These contributing factors will include: family history, family dynamics and structure,

relationships with adults and peers, problems at school with learning, relationships and conduct, general health and whether they are on medication.

A number of important themes emerged from the interview: first, was that psychologists work with behaviours as presented rather than the underlying medical cause; second, is the characteristic behaviours that can impact on the child's learning; third, is the psycho-social impact of the disorder such as emotion, family problems or attention seeking behaviour; fourth, is the relationship ADHD can have with other disorders such as autism or conduct disorders; fifth, is the misconception that ADHD is about poor behaviour; and finally there is the question of the administering of drugs to control certain behaviours such as hyperactivity. Clinical psychologists, like so many of the non-medical professionals who work at CDC and CAMHS centres, are not so much concerned with the medical cause of a disorder, although they do take into consideration any underlying medical cause, but with the psychological outcomes of that illness or disorder and, how best to resolve the difficulties that they present. The psychologist commented 'we tend to work with behaviours (as presented) rather than look at the root cause'. She also acknowledged that many childhood disorders co-exist with other disorders, thus making it difficult to pinpoint actual causes or contributing factors and therefore acknowledged the need to carry out thorough assessment before giving any remedial advice. The main function of psychological assessment is to look at the behaviours that affect learning and impact on the child's self-esteem 'It's actually looking in terms of what's in the child's characteristics that impact on the child's learning, rather than actually looking at the cause as such' (BPS, 2000). The psychologist did not dismiss the possibility or presence of a medical condition and the need, in some cases, to administer drugs in its treatment but also

considered a range of other therapies and psychosocial interventions that can be used alongside any medical remedies. The psychologist commented on a number of social factors that can affect sufferers such as ‘sometimes it may turn out to be poor adults’, ‘it could be errant partners’, or ‘coming from extreme backgrounds’ and ‘lack of stability where families are really struggling’. These types of circumstances don’t actually cause ADHD, but can exacerbate the condition and create characteristics that can mislead observers into thinking that a more ‘within-child’ or medical problem exists. The psychologist at this centre acknowledged the possibility of a neurological dysfunction as an underlying cause of certain ADHD characteristics such as impulsivity and hyperactivity but also acknowledged that a range of other factors could cause characteristic behaviours that may or may not be related to a neurological dysfunction or specific disorder. She further acknowledged that no single cause has been established for ADHD, which is supported by the research of others (Taylor 1994). According to Timimi (2004: 8) ‘There are no specific cognitive, metabolic or neurological markers and no medical tests for ADHD’. There was also an acknowledgment that Ritalin can have beneficial effects on concentration and educational and behavioural outcomes regardless of pathology. The paediatrician interviewed at the centre (see below) also supported the beneficial effect of Ritalin. An interesting point made was concerning the psychosocial effects of behaviour such as attention seeking where a child will exhibit any behaviour, positive or negative, to gain attention from others.

In conclusion, it was clear from the interview that the understanding of the psychology of the child is crucial in the identification and assessment of any disorder. Also an understanding of the social and environmental factors, including family, that

surround the child and can contribute and exacerbate the problem, is also crucial in the development of strategies to support children and their families.

Analysis of Interview 2. Community Paediatrician.

The community paediatrician is the key person employed at the CDC centre and is the person who is central to the assessment and medical diagnosis of a wide range of child and adolescent illnesses and disorders. The types of illnesses and disorders that paediatricians at the centre come across on a day-to-day basis would typically include: ADHD and other related conditions, Autistic Spectrum Disorders (ASD), childhood depression and anxiety disorders, developmental and language delay, dyslexia and dyspraxia and children with physical disabilities. The purpose of this interview was to explore the medical view on disorders such as ADHD and to seek the justification for the administration of psycho-stimulant drugs such as Ritalin when a neurological dysfunction has not been fully diagnosed and established. Expert opinion was also sought on: the neurological and genetic cause of ADHD, on the problems of 'psuedo' ADHD where characteristic behaviours are present but no official diagnosis has been made, and on the role of psychologists in the administering of behavioural checklists and rating scales such as those by Achenbach (1991) and Conners (1997). Expert opinion was additionally sought regarding the relationship of prevalence and increases in identification rates by using different diagnostic criteria such as the American DSM criteria and the European ICD criteria.

The first question asked what medical evidence doctors use when making a diagnosis of ADHD and the medical opinion on whether the disorder is a genetic and heritable condition. The paediatrician replied that most of the genetic evidence has been from

family studies and twin studies that have been carried out on ADHD (Tannock, 1998). She went on to say that because the disorder is relatively new, 'no single gene has been identified as a cause' and therefore there are 'no clear criteria' in determining cause. The paediatrician also commented that there is 'definitely not a single cause' and therefore considered ADHD to be a 'multifactorial condition' (Taylor, 1994).

In the second question I asked the paediatrician how doctors determine that faulty neurotransmitters are evident as an underlying cause of ADHD. The doctor explained to me that the identification of neurological dysfunction has been obtained from PET (positron emission tomography) and SPECT (single photon emission computerised tomography) scans. These type of scans show brain structure and anatomy and are used to study brain metabolism and regional change in brain activity (Goswami, 2004; Tannock, 1998). However, it was pointed out to me by the paediatrician that these brain scan studies are only used for research tool purposes and a child would not normally be sent for a brain scan to establish a neurological dysfunction such as ADHD. She then went on to say that ADHD is a 'clinical diagnosis and is based on the child's history, diagnosis, assessment of observable and pervasive behaviour from playschool and other environments to ensure that behaviour is not in a single setting'.

Question three sought an opinion on 'psuedo' ADHD where there may be symptoms of the disorder but no evidence of any neurological dysfunction or official diagnosis. The doctor informed me that without any clinical diagnosis 'you have to think about parenting, about attachment disorders, about autism, about dyspraxia and all other neuro-developmental disorders'. The paediatrician said that she had never used the term 'psuedo' to describe ADHD and went on to say that you can have ADHD type

symptoms or learning problems and difficulties with attention: ‘as a community or neurodevelopmental paediatrician, you try to pick out which is ADHD and which is not’. Also, ‘Sometimes you need other people like psychiatrists and psychologists and social workers who look at attachment, there’s no easy answer because it’s so multifactorial’. The doctor then went on to explain some of the factors taken into consideration in the assessment and diagnosis of ADHD at the clinic. The doctor suggested although there are plenty of criteria such as Conners’ rating scales, ‘they are only guides and ‘you may or may not have intrinsic ADHD’. She went on to say that ‘you’ve got to look at all other extrinsic factors as well. Two people could look at the same child: the social worker would see an attachment disorder, the paediatrician would see ADHD’; ‘there are also myths and contention as to whether it truly exist or not’.

In question four I asked the doctor if Ritalin is ever prescribed when there is no clear evidence of a neurological (neurotransmitter) dysfunction. As outlined in some detail above, the rationale for prescribing psycho-stimulants is to support and regulate the functioning of neurotransmitters in the brain thus improving concentration. The paediatrician commented, ‘we don’t measure neurotransmitter dysfunction because there are no tests’. And, ‘we know about nor-adrenaline and dopamine but they are for research purposes only, they are not a tool we use in everyday practice’. On the specific question of prescription of Ritalin without actual evidence of neurological dysfunction, she said, ‘yes you probably do and probably would prescribe Ritalin for a set of symptoms or problems’. She went on to suggest, ‘even if a child has an attachment disorder they may still respond to Ritalin, it is a very difficult area. You would start medication as a trial, a window of opportunity, to see if there are any

marked differences, if you've got the diagnosis right, you probably will. 'If it's an attachment disorder or difficulty you won't get such a good response'. The paediatrician supported the view of the psychologist and others in that 'everybody will respond to methylphenidate to some degree'. She went on to comment about some of the American studies that show how children on methylphenidate improved their grades. In the case of ADHD these results are more significant because these studies are not based on the use of clinical tools (transmitters or scans) and ADHD is not proven.

Question five sought to clarify how much reliance by doctors is placed on the advice of psychologists and the use of behaviour checklists and rating scales such as those by Achenbach (1991) and Conners (1997) and widely used by schools in the preliminary assessment of ADHD behaviours. The paediatrician voiced a fairly strong view on the use of checklists as a diagnostic tool and commented that 'rating scales only rate behaviour and are also subject to bias depending on who fills them in - some will tick zero, some want the child on medication because he's a pest [sic] so ticks high. It is very, very subjective and difficult to compare'. She went on to suggest the most important diagnostic tool is the history of the child, all of the history. 'Looking at the child from early life, which we do from a neuro-developmental perspective as a paediatrician'.

In question six I asked the doctor about her opinion on the use of different diagnostic criteria such as the American DSM1V as opposed to the ICD10 criteria that are widely used in Europe and Britain and, whether this leads to more children being diagnosed. As discussed earlier, the ICD10 manual uses a more singular set of criteria

for hyperkinetic disorder (hyperkinesis) that describes impulsivity and hyperactivity, whereas the DSMIV manual uses a much broader classification system to describe ADHD, leading to a diagnostic difference in the region of 4:1 (Prior, 1997). In reality the DSMIV combined type relates more to the ICD10 hyperkinetic syndrome and is used for comparative purposes by clinicians. The paediatrician commented that she did not see a difference because 'we use the two synonymously' and 'ICD9 also uses ADHD without hyperkinesis, we've moved away from pure hyperkinesis, that's what stopped children from being diagnosed with ADHD more than ten years ago...we now see it as a much broader diagnosis'. I asked her again about the diagnostic differences between the narrow diagnostic criteria for hyperkinetic syndrome and the broader criteria used by the DSM 1V, leading to increased prevalence. The doctor replied 'if you're talking about hyperkinesis vs. ADHD that's probably true. A lot of kids with ADHD do not fulfil hyperkinetic criteria and doctors still use both criteria'. The doctor made a very pertinent point in that 'everybody's clinical practice for ADHD is probably different: there is no one set criteria' and, 'if all diagnosis was the same, you wouldn't need a doctor, you could use a robot. It has to be down to your experience and understanding'.

In question seven I suggested that research findings appear to be moving away from viewing hyperactivity as the main symptom of ADHD and moving towards attention difficulties rather than hyperactivity. The doctor explained that hyperkinetic syndrome is characterised by 'hyperactivity and very poor sleep patterns with constant moving'. 'Certainly there is a category of children who are not hyperkinetic but clearly have a lack of impulse control and marked attention difficulties'. She went on to comment on the educational perspective regarding these children and suggested that, 'they are the

ones that are usually missed because they don't have behavioural problems but do have learning problems. A very important point made by the doctor in respect of ADHD and behaviour was that 'one of the biggest myths, especially in education, is that ADHD is primarily a behaviour difficulty when it's primarily an attention deficit' (Cooper, 1998; 2008). I asked the doctor if she thought it was because hyperactivity was noticed more. She commented that 'you must consider the high levels of co-morbidity, 70 per cent of children with ADHD will have some co-morbid condition, maybe more than one, so behaviour is a difficult thing because what one sees as normal another won't' (Tannock, 1998). I asked about differences between behaviour at home and school and suggested that these differences can be quite marked. A child can be well behaved at school but poorly behaved at home or vice versa. The doctor replied that 'you've got to see why they do, a bright child who wants to learn will respond to structure and the stimulation of school but will explode the minute mum picks him up from the playground'. She went on to say that 'part of my job is to explain to education staff that lack of control of attention isn't about bad behaviour, if you want to raise SATs (standardised assessment tasks) and the eleven-plus you would give everyone Ritalin, frankly'.

The final question I asked the paediatrician was an open-ended question. In open-ended questions respondents have the opportunity to answer questions in their own way and in their own words. According to Cohen, Manion and Morrison (2001: 270) 'the research is responsive to participants' own frames of reference'. The doctor used this opportunity to expand on a number of the themes that were discussed from the interview schedule but also spoke about other interesting factors that contribute to the understanding of the ADHD phenomenon. I asked the doctor if she would like to add

anything further to what we had discussed and the first reply was about the important consideration of co-morbidity, 'you need to consider co-morbidity because that's what gives you an overall picture of ADHD'. She went on to comment on the genetic implications and the fact that many parents may have had ADHD as children that went undiagnosed which led to them being 'failures at school' and 'probably haven't managed to keep jobs'. The doctor also made reference to a further socio-economic factor and commented that 'if you look socio-economically, you will find that they come from the poorest areas and are in a cycle of failure'. I asked what her thoughts were on the notion of bad parenting as a contributing factor. 'I think bad parenting can contribute to ADHD but there's no merit in telling parents they are 'bad'. She went on to say that 'people are too quick to criticise parents, particularly if they've got ADHD: you've got to handle it very carefully'. I then suggested to the paediatrician that it is my view that ADHD only exists where a neurological dysfunction is 'proven'. She replied quite strongly 'but how are you going to prove it. I've had this argument with the council (medical): you can't put children under anaesthetic to do PECTS and scans. You would have to use the latest PET (according to Goswani (2004), PET scans rely on the injection of radioactive tracers and are not suitable for use with children) and SPECT scans, which are very expensive, and you would have to sedate these children, can you justify that? The doctor went on to add that although Dopamine receptors (DR4) are being identified 'it just proves you've got the gene, there isn't a blood test to show neurotransmitters; you have to be very careful'. I asked the doctor if it's still just a theory and she replied that, 'it's not a theory, it's a clinical assessment'. She went on to say that 'if you took the history from 100 families with a child with possible ADHD, you would be amazed at the similarities of the stories'. I asked if this was because it runs through families and is genetic. The

doctor replied 'No, it's because all the children with ADHD and the characteristics, the behavioural phenotype, the way they behave and characteristics are very, very similar. Once you get the 'feel' for ADHD you get the full history from birth up until present day about how they function, a holistic picture of the child'. I asked the paediatrician about whether general practitioners (GPs) ever diagnose for ADHD and whether they get advice from community paediatricians. She replied that GPs do diagnose for the disorder and should seek advice from paediatricians 'because the NICE guidelines say all children on medication should be on a shared care arrangement. That means it's a specialist subject and should be under a specialist review'. The doctor went on to say that 'however there are a few GPs who take it upon themselves to give medication. I see this as poor practice, because if you don't know enough about the drug (methylphenidate) and how it works they can give too much too quickly and you end up with a 'zombie'. This was a reference to the often reported and misleading press releases on Ritalin being used as the 'chemical cosh' and its use resulting in 'zombie children'. The paediatrician suggested that this is due to 'poor prescribing' and the risks of this are greater for the GP as a non-specialist. The paediatrician then went on to speak about brain disorders as being on a spectrum like autism and dyspraxia and that sometimes ADHD and autism are linked through co-morbidity with sets of characteristics that overlap. She went on to suggest, 'if you go purely on criteria, one would exclude the other'. She further added that 'current practice says you can have the two, and some clearly do have the two. And 'that's the trouble with any set of criteria, you will always have anomalies: to have a 'pure' diagnosis of ADHD you would not have any other pervasive developmental disorder: that would exclude autism at a stroke. Clearly you can have both; you need to make a very careful clinical evaluation and take information from many different sources'.

The paediatrician reiterated that ADHD is an 'intrinsic condition' but with 'extrinsic factors' and that you cannot rely on the neurotransmitter theory 'because there's no way of proving it'. The doctor also spoke about the research that has been carried out. It has mainly been on adults because of the ethical considerations involving children. She also suggested that it's all very difficult to prove because these scans are no more than a research tool. She also suggested that 'in clinical practice it's always a clinical decision and it can cause conflict'. In a final comment, the paediatrician suggested that 'about 60 per cent will take ADHD into adolescence and about 50 per cent will have symptoms in adulthood'. She also suggested that in prison research 'a lot of prisoners have undiagnosed ADHD, it's the lack of impulse control: If you're in a fight and you've got ADHD you won't think nothing of [sic] picking up a bottle and hitting someone; you don't think of the consequences, it's sheer impulsivity leading to imprisonment'.

Discussion of key findings from the interview (Community Paediatrician)

The paediatrician at the centre was fully aware of the neurological and genetic research on ADHD and its implications in the assessment and diagnosis of the disorder in everyday practice. However, the doctor was quite clear that the neurological evidence from brain scan research is used as a clinical research tool and for research purposes only and is not used in day-to-day practice. As in most diagnosis of illness or psychiatric disorder, the patient's family history and personal medical history are taken into account when making a diagnosis. In the case of developmental disorders such as ADHD many other factors have to be taken into account by doctors and these would include social, environmental, psychological and medical factors (Carr, 2002).

A very important factor that has been common throughout the interviews with the psychologist and the paediatrician is the co-morbidity or relationship of disorders/illnesses that can co-exist with ADHD. It is this factor that makes the diagnosis of ADHD so difficult because it rarely exists on its own and is often co-morbid with other disorders that can 'disguise' any underlying medical, psychiatric or psychological cause. As discussed earlier, co-morbidity rates for ADHD and other disorders can be as high as 80 per cent (Tannock, 1998). The common perception that ADHD is a behavioural disorder is a direct result of the disorder being co-morbid with behaviour disorders such as Oppositional Defiant Disorder (ODD) and Conduct Disorders (CD). According to the review carried out by Tannock 'the most frequently observed comorbidity is between ADHD and other disruptive behaviour disorders, with oppositional defiant disorder and conduct disorder occurring in approximately 40% to 90% of cases (Tannock, 1998: 67).

A further factor that doctors take into account is the different perceptions by parents, teachers and some other professionals as to what constitutes a 'problem'. As the doctor suggested during the interview, some, such as the social worker, will see an attachment disorder as being the cause of the problem, and others, such as the paediatrician, will see ADHD as the problem. This is the reason why a comprehensive assessment is used that takes into account the history of the child and the child's family as well as reports from schools and other professionals that are considered in the assessment and before any formal diagnosis is made.

On the subject of using medication, and the justification of using psycho-stimulants on children without brain scan evidence: the interviews revealed that, again, as with

many illnesses, doctors go by clinical evidence and the knowledge gained from research when administering drugs. It is the patient's symptoms as presented to the doctor that are being treated rather than the cause. The evidence of an underlying biological or neurological cause is taken from previous research on the illness/disorder and clinical trials. Therefore as the community paediatrician said, it is not necessary, in every case, for the patient to be tested or scanned before receiving treatment to alleviate symptoms. In the case of disorders such as ADHD, if the doctor considers that there are certain symptoms present that will benefit from Ritalin or any other drug, then the medication will be prescribed. The patient will be closely monitored to see if there are any improvements in the condition and the dosage of the medicine may also be altered or stopped as necessary. Because so many other factors can cause and exacerbate ADHD symptoms, a holistic approach to treatment will be considered using a combination of medicine and therapeutic approaches. The paediatrician advised that although general practitioners do sometimes diagnose ADHD and prescribe medication, this should be within the NICE guidelines and should be in partnership with a specialist doctor or community paediatrician.

From the interviews, I found that paediatricians do take into account evidence and reports from various sources when considering a diagnosis of ADHD. However, they are also aware of the issues surrounding bias, perception and misconception of the disorder. Therefore, although teacher and parent checklists and behaviour rating scales are useful as parts of the jigsaw, they are not relied upon as the sole tool in diagnosis. The most important diagnostic tool according to this doctor, and one widely used by paediatricians, is the child's history. The interview revealed that paediatricians don't just look at the history of the past few months because that can

also be misleading. They look at ‘whole life’ history from birth to the present day in order to make an informed and holistic assessment of the problem.

Perceptions of Attention Deficit Hyperactivity Disorder (ADHD), its incidence, and the way in which it is supported in a Comprehensive School.

ADHD is a complex disorder that can manifest itself in many different ways. Since it is a medically defined disorder, teachers often view the disorder as being outside their expertise and tend to deal with incidents when they arise rather than understanding their cause and developing early interventions. There is also a perception by some that ADHD is socially constructed and therefore is sometimes used as a label to excuse negative behaviour. The perception of what constitutes ADHD and how it is dealt with in the classroom is important because early identification and appropriate intervention strategies are essential in preventing escalation of difficulties. The way the school implemented the guidelines of the DfES Code of Practice was also explored in the context of ADHD.

In this phase of my investigation I sought to explore the views and knowledge of teachers and Classroom Support Workers (CSW) on the characteristic behaviours of Attention Deficit Hyperactivity Disorder and their perception of how the disorder manifests itself in the classroom by carrying out six interviews and three observations. In order to support students with emotional and behavioural difficulties, including those deemed to have Attention Deficit Hyperactivity Disorder, it is important to have an understanding of not just the characteristic behaviours of ADHD, but also the issues that could maintain or exacerbate the disorder in the classroom. Knowledge and understanding of ADHD needs to go beyond the behavioural characteristics of the

textbook and proceed to understanding the many facets of the disorder that combine, such as its co-existence with other disorders and the development of effective support strategies. Consideration also needs to be given to issues of personality and individual differences of students and to those students who do not present with behavioural problems but may have associated learning difficulties. The intention of this phase of research was to conduct six interviews with staff, including teachers and support staff, and to conduct three classroom observations of students. The purpose of the observations was to highlight any examples of behaviour that could be attributed to ADHD and match this to the views and perception of staff.

As explained earlier in this thesis, this girl's comprehensive school was very willing to participate in this phase of my research and I feel it added a valuable dimension to the study. Statistically, there is a predominance of boys that are assessed and/or diagnosed with emotional and behavioural disorders, including attention deficit and hyperactivity difficulties. Therefore, it was interesting in the interviews and discussions to hear how staff perceived ADHD and whether it was seen as problematic in this setting as well as how this related to the literature on the different manifestations of the disorder in girls.

I also felt there was less bias amongst staff than amongst those staff described in earlier research on mixed schools as to the existence of the disorder in girls and found a marked difference in the support strategies suggested by learning assistants and that advocated by teachers. This thesis found that support assistants favoured medication for those students who displayed lack of attention and hyperactive behaviour, whereas

teachers favoured behaviour management and educational support as suitable in treating characteristic behaviours.

In assessment centres, there is a predominance of boys referred for assessment. This reflects the findings from the literature, where the ratio of boys to girls is typically 4:1 (Prior, 1997). However it should also be noted that these figures reflect the more overtly aggressive characteristics of boy's behaviour and related conduct disorders. The disorder in girls, however, is often displayed in emotional and attentional difficulties and is therefore often perceived differently.

The school had an orderly but busy atmosphere and appeared to be well organised with a good code of conduct for students regarding respect and politeness towards others. Being an all girls' school, there was a strong feminine ethos portrayed in posters and students' literature both in classrooms and around the building. During this research phase, three lessons were observed across the 11-16 years age range in different subjects. The first lesson was an English lesson. Second, was a media lesson taught by a supply teacher. Third, was a library-based reading lesson. The sessions observed were conducted in spacious and well-lit classrooms with good displays of posters and students' work. Staff/pupil relationships overall appeared to be good. Student to teacher classroom ratio was about average for an inner London comprehensive school at 25/30: 1. The school had about 950 students on roll. The location of the school is in an area that is diverse and multi cultural and this was reflected in the school's intake of students.

The purpose of the interviews was to explore the views and perception of staff working with students with a variety of Special Educational Needs (SEN) as well as those deemed to have Social Emotional and Behavioural Difficulties (SEBD) including ADHD. Information was also sought as to whether staff had any personal experiences of working with students with ADHD and how these students were supported in the classroom. The opinion of whether staff considered ADHD, diagnosed or otherwise, as a problem in this particular school was also explored. Four Classroom Support Workers and two classroom teachers were interviewed. Field notes were taken for five of these interviews and one interview was taped (Appendix 8). There was an opportunity to formally interview the Head of SEN but I decided this was not necessary as a lot of useful information was gathered during informal conversation. The issue to be considered when conducting interviews is 'fitness for purpose'. The purpose of the interviews conducted in this phase was to explore the extent of knowledge and experience staff had acquired about ADHD. Specifically, information was sought on the level of staff knowledge about ADHD, its cause/s and possible treatment with medication. Second, was the impact of that knowledge on the skills and ability of staff to support students deemed to be suffering from ADHD. Third, was to explore the perception by staff of ADHD symptoms and characteristics and how it is identified, diagnosed and treated in the classroom. Staff knowledge of the disorder also has an impact on their understanding of students with ADHD. This may impact on the quality and range of support that students receive. The interviews conducted were short sessions arranged between lesson changes and, during staff non-contact periods: they lasted about 10 minutes in duration. The teachers and support staff being interviewed were selected by the Head of SEN depending on their availability and willingness to take part.

Analysis of the staff interviews

The purpose of the interviews was to explore the knowledge and perception by staff of ADHD and how this is supported in the classroom. The first question concerned staff perception of the characteristic behaviours of ADHD.

The responses given to this question by teachers and support workers were very similar in content and reflected the description of characteristic behaviours that can be found in the DSM 1V (1994) and ICD 10 (1993) manuals (Appendix 11) and books on ADHD (Cooper & Ideus, 1996). For example, one of the classroom support workers commented that a student with ADHD ‘avoids work and is easily distracted’ and has a ‘lack of attention and focus’. A teacher commented that ADHD students are ‘not attentive’ and, ‘can’t stay on task’. The teacher also suggested that ADHD students have ‘a lack of focus’ and are ‘not listening and restless’. A support worker commented on a girl who she thought might have ADHD and stated that, ‘I don’t have any trouble with her attitude but I know other staff do’ She went on to suggest that, ‘you see, we’re different to teachers, the girls see us as in between the teachers and them’. Another support worker commented that students with ADHD ‘can be aggressive’ and, ‘they can be intelligent’. One of the support workers spoke about problems with attention and concentration leading to possible classroom disruption and suggested that ‘lack of attention and the disruption that comes with that, they get bored very quickly and therefore disrupt everybody else because they are bored’. This support worker further elaborated on ADHD characteristics with the comment ‘lack of impulse control...can sometimes just be verbal, something just comes into their head and they just say it’. Another support worker commented on aspects of

social skills and relationship with staff ‘ADHD students tend to be isolated; their social interaction skills are poor’ and, ‘interaction with peers and teachers is poor’.

I asked two of the support workers what they thought was the cause of disorders such as ADHD. One of them commented that ‘I don’t know, but I think there is a lack of knowledge in order to help’. The other support worker suggested, ‘hyperactivity linked to diet and lack of impulse control’ as possible causes. One of the support workers seemed to have a more comprehensive knowledge of ADHD and commented that ‘I don’t think there is any single factor, perhaps traumatic experiences from birth are the cause?’ This particular member of the support staff also indicated that she was aware that disorders such as ADHD can co-exist with other disorders and stated ‘I know if a child has SPLD they tend to have behavioural problems’ and further suggested, ‘I do believe it is a special condition like autism’.

The responses given by teachers concerning the perception of what causes ADHD and the characteristic behaviours attributed to it differed from that of support workers. The difference in opinion and the approach by teachers to the problem seemed to reflect a greater knowledge and experience of working with young people and the use of differentiated teaching strategies to overcome problems in the classroom. For example, one of the teachers interviewed suggested that with ADHD ‘you could argue it is a pattern of learned behaviour’ and went on to say that ‘once a girl in my class just stood up and started walking around for no apparent reason, she was just attention seeking’.

During the interviews I sought the opinion of staff about the identification of ADHD in the classroom leading to the possibility of a formal diagnosis. One of the support workers commented that 'before diagnosis it was being misread' and further suggested 'it needs to be diagnosed at seven'. One member of staff, a support worker, spoke about not coming across any students with a statement specifically for the disorder: 'I haven't come across any girl that has a statement for ADHD'. This would be unlikely, as a statement, or statutory assessment, would be issued by an LEA to support a range of learning and/or behavioural difficulties and would rarely mention a specific disorder. The emphasis in the statement would be on strategies and resources to support the child's difficulties and would not be used to 'label' the child with a condition.

One of the support workers suggested the possibility of a genetic link and suggested that ADHD is more common in boys than in girls. She went on to comment, 'I know that girls can have it, but it's rare'. The support worker asked me whether ADHD would continue into adulthood and suggested that if it is genetic, 'once you've got it, it stays with you for life'. A support worker commented that 'In some cases you can look at parents and see why children behave the way they do'. Another commented, 'It can be hereditary'. These comments reflected the current research on twin and adoption studies suggesting a strong link that ADHD can be genetically inherited (Carr, 2002; Tannock, 1998). The information regarding genetic links to ADHD can be found in a variety of textbooks and training manuals.

During the interview with one of the teachers, I asked for her views on whether she thought ADHD actually existed as an identifiable disorder and if she thought there

was a clear linking of the disorder to a medical cause and consequent treatment with drugs. She commented, 'I know it exists because kids are treated with Ritalin'. A similar view to this was put forward by two of the support workers who stated, 'I think ADHD exists because there are drugs to control it' and, 'they take Ritalin to calm them down'. Another support worker commented that, 'some of the CSWs work with a girl who is on Ritalin, she sometimes has outbursts'. One support worker claimed that she had 'researched' Ritalin and commented that 'I wouldn't put a child of mine on it just because of the side effects'. She went on to say that 'I've read it can make a difference later in life. I know my stepson was very dependent on it, needed that pill to be good'. Interestingly, she also commented that she didn't think her son had ADHD but, 'to him, as long as he had his medicine...' I feel this comment reflects a commonly held misconception on the use of Ritalin as an instrument of social control. Thus Prior (1997) comments:

There are also issues regarding popular perceptions as to the whole purpose of medication i.e. to what extent is it correctly perceived as a symptom suppressant as opposed to it being viewed (and used) as a pharmacological means of controlling challenging behaviour. (Prior, 1997: 22)

During the interviews, I sought the opinion of staff on teaching and supporting students with a diagnosis of ADHD. One of the teachers commented that, 'it's as if kids need coping strategies and there is a need to work on self esteem' and further suggested, 'I think you have to adopt different strategies to deal with behaviour'. A support worker suggested, 'It's best to use small step teaching' because they tend to be 'easily distracted'. This support worker also suggested the use of behavioural management techniques such as 'you need to use rewards and incentives' to help control negative behaviour. One of the teachers suggested that 'schools have a duty to support the child through the pastoral support system'. A support worker who suggested a 'need for positive help and support' and that, 'you need good support'

gave a view similar to the one put forward by the teacher. One of the teachers and a support worker commented on the effects of labelling. The teacher commented 'I don't think labelling is very helpful'. A support worker commented that negative labelling was not helpful and you need 'positive labelling in order to focus on the problem'.

Discussion of key findings from the interviews

According to the American Psychiatric Association Classification for ADHD (APA, DSMIV) the characteristic behaviours of the disorder are divided into three main subtypes. These are Predominantly Inattentive Type (poor sustained attention), Predominantly Hyperactive-Impulsive Type (hyperactivity and impulsivity) and Combined Type. The World Health Organisation (WHO, 1993), have a single category of Hyperkinetic Disorder that is similar to the DSM category of Combined Type and relates more to problems with Hyperactive behaviour and Impulsivity. It was not surprising therefore that during the interviews with staff I found certain common threads of knowledge about characteristic behaviours that related to both the DSM and ICD manuals' sub types when referring to ADHD. All of the staff interviewed highlighted hyperactive behaviour, lack of attention and impulsivity as characteristic behaviours. Comments such as 'busy children, hungry for attention' and, 'once a girl in my class just stood up and started walking around for no apparent reason, she was just attention seeking', could also suggest other related problems that are co-morbid or co-exist with ADHD such as conduct problems. Behaviours concerned with the ability to stay on task and those related to difficulties with attention and impulsivity were also highlighted by a number of staff. Comments by staff regarding lack of attention and off-task behaviour also had common themes

including: 'avoids work and is easily distracted', 'short attention span', 'they tend to be easily distracted', 'can't stay on task', 'not attentive', and, 'lack of focus'. All of these comments reflected the behavioural characteristics that can be found in the DSM and ICD manuals, and other literature on ADHD. However, although they reflect some of the behavioural characteristics of ADHD they do not necessarily reflect the psychosocial and environmental issues that could be causing or maintaining these behaviours.

Teachers, parents and other professionals' perceptions of the underlying causes of ADHD are of crucial importance because they affect not only the way we respond to this group of students' needs, but also affect the strategies we adopt to support these vulnerable young people. Research on the cause of ADHD is almost as complex as the disorder itself. The British Psychological Society (BPS) sees ADHD as a multi-faceted disorder combining biological, psychological and sociological factors that need to be considered. As mentioned earlier, this has led the BPS and others to adopt an umbrella term of Bio-Psycho-Social Disorder to describe the genetic, biological, and environmental causes of ADHD (BPS, 1996; Tannock, 1998, 2006; Weiss, 1996; Cooper, 1996, 2008; Lloyd et al 2006)

During the interviews, I asked staff their opinion on what they thought were the underlying cause/s of ADHD. Once again there were some common themes emerging from the responses, but also some different and interesting personal perspectives on the disorder. The range of responses by staff had both a medical theme and psychosocial theme. One member of staff did not know what caused ADHD but highlighted a crucial point in her statement on whether ADHD exists, 'I don't know,

but I think there is a lack of knowledge in order to help'. This in many ways is the crux of the problem in special education: in that there is a lack of knowledge about ADHD, or any other special need that requires a level of support additional to, or different from, normal provision, which can only be addressed through appropriate training and a good understanding of individual student needs. An understanding of complex psychosocial and neurological disorders is also needed if appropriate support is to be given for these types of disorder. The recent government initiatives on the inclusion policy means schools are now dealing with students who, because of the complexity of their problems, would previously have been educated in special schools but are now increasingly within mainstream education. This problem is exacerbated by including students with a range of complex neurobiological difficulties such as Autistic Spectrum Disorders (ASD) and ADHD, especially when teachers and support staff consider these disorders to be in the medical field and consider them to be outside their expertise. Comments made by staff such as 'I think there are conflicting views, but you know it exists' also act to illuminate this point.

A rather more concerning perception that arose from these interviews with the educational staff is that ADHD has a solely biological/medical origin. Members of staff who believe ADHD is biological and who see this link between the cause of the disorder, its medical origins, and its treatment by stimulant drugs such as Ritalin (Methylphenidate) can close their minds to other factors that can contribute to ADHD symptoms. Comments such as, 'I think ADHD exists because there are drugs to control it' and, 'I know it exists because kids are treated with Ritalin' highlight this point and demonstrate a somewhat illogical and ill thought out identification of the syndrome with the treatment. The perception that ADHD is solely about behavioural

difficulties and is drug controlled is also a concern, 'Some of the Classroom Support Workers (CSW) work with a girl who is on Ritalin, she sometimes has outbursts' and, 'they take Ritalin to calm them down', highlight this perception. These comments concerning this 'medical' view will be dealt with in more detail later in this thesis.

Alongside the belief by staff that ADHD has a medical/biological cause was the social/psychological view of the disorder. One member of staff (CSW) placed the cause of ADHD on parenting and stated: 'In some cases you can look at parents and see why children behave the way they do'. She also thought that 'perhaps traumatic experiences from birth are the cause'. The view that parents can play a pivotal role in the cause of ADHD is widespread but tends to be focused on ADHD and related co-morbid disorders that have a bearing on negative behaviours such as behavioural inhibition (Barkley, 1997; Das & Papadopoulos, 2003), conduct disorder (Tannock, 1998; Mc Nicholas & Baird, 2000), aggression and hyperactivity (Merrell & Tymms et al, 2001.), and problems with information processing (Tannock et al, 2006). This often leads parents to look for an exonerating cause for their child's behaviour and to look for a medical diagnosis and drug controlled (Ritalin) remedy to treat their child's condition. (Cooper, 1998, 2008; Prior, 1997; Norris & Lloyd, 2000; Lloyd et al 2006; Sava, 2000).

The number of students with Special Educational Needs (SEN) and the range of those students' needs can vary considerably in a large mixed ability school. The Code of Practice (CoP) sets out three levels of support for students with SEN. Most of the support SEN students receive is at the school action level, that is, students do not require support from outside of the school such as the Educational Psychological

Service (EPS) or Behaviour Support Service (BSS). Teachers and support staff therefore rely on systems, strategies and resources within their own school and professional expertise. During the interviews with school-based staff where this research was conducted it was interesting to note some of the comments regarding the strategies used for students considered to have either a diagnosis of ADHD or some of the characteristic behaviours that relate to the disorder.

Most of the support staff and teachers adopted a systematic approach to teaching students with ADHD in the same way as for other pupils with special needs, that is, individualised teaching programmes, small step teaching, using different strategies and approaches, pastoral and behaviour support. However, there was a difference in attitude and therefore the strategies adopted between teachers and support workers in supporting SEN. The classroom support workers appeared to favour the more standardised SEN approach such as using the technique adapted for children with learning difficulties. For example, one of the classroom support workers commented that 'It's best to use small-step teaching' whereas the two teachers interviewed had a more holistic approach such as, 'I think you have to adopt different strategies to deal with behaviour' and, 'schools have a duty to support the child through pastoral support' thus highlighting a different perspective. Only one of the members of staff, a teacher, mentioned the importance of raising self-esteem and commented, 'It's as if kids need coping strategies and there is a need to work on self-esteem'. This is an important consideration, because it places the line of thought within the 'psychosocial' model of treating ADHD symptoms rather than medication. One of the teachers interviewed also alluded to a psychosocial model of intervention in his comment, 'you could argue it is a pattern of learned behaviour'.

During an interview with one of the classroom support workers, she spoke about a family member who had been tested for possible ADHD. She commented that the child was 'being naughty, very naughty' and 'couldn't control himself'. She also commented on the result of the 'diagnosis' the child had received and that the child had a 'difficult temperament'. Interestingly, she then went on to say that, 'maybe his father has been able to reign that in because obviously living with him he had strategies that's been able to change him and deal with his difficult temperament'. The above comments indicate a widely held view amongst researchers on the contribution of psychosocial and familial factors on ADHD, in that, dysfunction in families and/or lack of parenting skills can have an impact on behavioural outcomes, including characteristic behaviours associated with the disorder. It is this perspective that can lead to parents putting pressure on doctors for a diagnosis of ADHD and can result in prescribing of medication. (Prior, 1997; Sava, 2000; Peris & Hinshaw, 2003; Norris & Lloyd, 2000; Lloyd et al, 2006). According to Sava (2000: 155) 'ADHD has become a scapegoat for many individual and societal dysfunctions'.

In another interview with a support worker she commented about a possible genetic link involving a step-dad. (Appendix 8) She went on to say, 'I know there is a possible genetic link...I know that girls can have it but it's rare'. I explained to the CSW that research has indicated a possible genetic link in the aetiology or cause of ADHD and that the ratio of boys to girls with ADHD can be as high as 3:1 (Tannock, 1998). Interestingly, when discussing treatment for ADHD, this support worker commented that she had 'researched Ritalin' and added, 'I wouldn't put a child of mine on it just because of the side affects'. It appears from this interview, and some of the others conducted, that whichever paradigm, biological, sociological or

psychological, such staff place ADHD into, it seems to be an accepted wisdom that drugs are commonly prescribed in the treatment of the disorder. The support worker also commented, 'I've read it (Ritalin) can make a difference in later life' and, 'I know my stepson was very dependent on it and needed that pill to be good'. Again this highlights important points concerning the thinking and perception behind using drugs in the treatment of ADHD. An illuminating final comment by this CSW on the use of Ritalin was 'would an aspirin do the same?' These comments concerning the link between ADHD symptoms, medical diagnosis, and the use of medication as a 'cure' is one of the most controversial areas in ADHD (Rey & Sawyer, 2003; Norris & Lloyd, 2000; Lloyd et al 2006; NICE, 2000; Prior, 1997; Taylor, 1999, 2009). The use and misuse of medication in the treatment of ADHD and the use of alternative therapies will be returned to later in this thesis.

During one of the interviews with a support worker, she spoke about her knowledge of the genetic link to ADHD and whether the disorder continues into adulthood. She had asked me if adults diagnosed with ADHD take Ritalin and I explained to her that where ADHD is present in adults, they will probably be treated with alternative drugs such as anti-depressants or similar because Ritalin does not have the same effect on symptoms in adults as it does in children. The support worker went on to mention a possible genetic link that had been discussed at a clinic she had attended with her son. At the clinic she was told that, 'once you've got it, it stays with you until you are an adult'. I explained to her that as ADHD is a developmental disorder and, because of the possibility of genetic links, it is possible that it will continue into adult life but that such continuity is not always the case. (Willoughby, 2003; Tannock, 1998; Thapar et al, 1999). She then went on to ask, 'is it that once you're an adult you've got

strategies to deal with it?' I thought this was a very relevant point to make and showed some understanding of the developmental nature of ADHD and how strategies and therapies other than medication should be considered in treating the condition. (BPS, 2000; Brandau & Pretis, 2004; Prior, 1997; Cooper, 2008; Das & Papadopoulos, 2003; Lloyd et al 2006; Vulliamy & Webb, 2003).

An important consideration concerning the diagnosis, or not, of ADHD is the characteristic behaviours that are associated with the disorder. Research has indicated there are many factors to be considered in the identification and diagnosis of ADHD. I have discussed earlier in this thesis that a key problem in diagnosis of the disorder is what psychiatrists call co-morbidity, or the relationship/co-existence with other disorders particularly those affecting behaviour and conduct. As Mc Nicholas (2000) has commented:

The other diagnostic difficulty in pre-pubertal children is the fact that early-onset bipolar disorders share symptoms with a number of other conditions and may be co-morbid with other disorders including attention deficit hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), conduct disorder (CD), anxiety, depressive disorders and learning disabilities...In addition, hyperkinetic children may also present with social disinhibition, irritability and emotional lability, symptoms which are characteristic of bipolar disorder leading to diagnostic confusion and the possibility of an artefactually increased co-morbidity (Mc Nicholas, 2000: 596).

During a taped interview with a support worker (see transcript – Appendix 8), I mentioned a classroom observation that I had carried out and how a particular student was displaying inattentive behaviour, a characteristic behaviour of ADHD. I explained to the support worker about characteristic behaviours associated with ADHD and how these relate to categories in the various diagnostic manuals that are used. The support worker commented, 'would that not be true to say that a lot of people have got some [of these kinds of] characteristic behaviours?' and further added

that 'I can't concentrate, does that mean I've got it?' We discussed for a while some of the problems associated with the perception and diagnosis of ADHD and observation of behaviour. I explained how the perception of what ADHD is and the similarities to other disorders can cloud judgments and lead to misconception. I mentioned the common perception of the characteristics of autism and how people often refer to the expression 'autistic tendencies' to explain a wide range of autistic behaviours. The support worker then went on to comment on some of the problems her son was having at school: 'It was like that with my son, the things that the school thought were really important, I didn't, and vice versa'. She further commented that 'I've only got one at home and they have got thirty, so that's where the conflict lays'. She went on to suggest that the probable cause of her son's behaviour was the school and large classes and not the home. All these factors, it seems, are indeed contributing to her son's 'difficult temperament'. The support worker also suggested that when her son is at his fathers' house he has strategies to deal with her son's behaviour. However, she did not make any suggestion that her own behaviour or perceptions of cause could be in any way be contributing to the problem. The tendency for the support worker to ignore her own role in the situation echoes the findings of Reid and Magg (see Norris and Lloyd, 2000: 132) who stated:

We have seen that, for many parents of children diagnosed with ADHD, the diagnosis with its medical implications comes as something of a relief – first, because they have located the 'cause' of their child's distress, and secondly because, they as parents, are not to blame.

This in many ways highlights a particular problem with the identification and diagnosis of Attention Deficit Hyperactivity Disorder and the way it is perceived by individuals in that the conflicting and sometimes controversial views on what causes or contributes to ADHD can lead to diagnostic confusion. In a review of press reports on ADHD and the rising prevalence of the disorder, Norris and Lloyd (2000)

highlighted a wide range of factors to be considered. Some of these factors are: commercial interest by drug companies, particularly Ciba Geigy, who manufacture Ritalin, availability of US-based Internet sources, pressure from parents' organisations, role of some 'experts', changes in the structure of schooling with associated pressure on teachers and the role of media – radio, television and the newspapers (Norris & Lloyd, 2000: 124). Classification and the repeated reformulation of the characteristic behaviours associated with the disorder by the American Psychiatric Association (APA), has also added to diagnostic confusion. According to Das and Papadopoulos (2003:184) in their commentary from alternative perspectives and the definition of ADHD:

Indeed, if we consider the definition and classification of the behaviour disorder commonly referred to as 'attention deficit and/or hyperactivity', we will tend to agree that it has been a controversial issue. Evidence for this lies in the repeated reformulation of the disorder in each edition of the *Diagnostic and Statistical Manual of Mental Disorders* (APA, 1952-94)

In summary, it appears that staff working at the school had acquired a range of knowledge about the characteristic behaviours associated with ADHD. Most of these were behavioural characteristics and reflected those present in the various diagnostic manuals used for identification of the disorder. Social and environmental issues such as the role of schools, teachers, parenting and personality problems were not generally seen as relevant in attributing to the cause of ADHD. Staff had also acquired some knowledge of the possible underlying biological causes of the disorder and its treatment as a medical condition. Where a medical diagnosis of ADHD had been made, staff at the school suggested it would probably be treated with drugs. Interestingly, it was the classroom teachers and not the support workers who tended to suggest the use of alternative strategies to medication in dealing with associated behavioural problems. These differences in teaching approach and the strategies

adopted by staff when dealing with classroom problems, medical or otherwise, are probably a result of qualification and training differences, experience and understanding of psychology and individual differences in children rather than any other preferences.

The school where this study took place is an all girls' comprehensive school that had an organised and orderly environment where respect and support for others was a high priority. It was clear from the discussions with staff that ADHD was not seen as causing any particular problem in this establishment. Where a student was suspected of having ADHD, normal SEN procedures and strategies were adopted in dealing with any behaviour or associated learning difficulties.

The findings from this study that ADHD was not seen as a particular problem in an all girls' school reflect a wide body of research in the manifestation of ADHD and sex differences. The evidence from this thesis and the majority of researchers in the field confirms the common perception that girls display different ADHD characteristics from boys and are more likely to display problems with inattention or emotion rather than aggressive and disruptive behaviours largely account for these differences.

(Maras & Cooper, 2000; Merrell & Tymms, 2001; Owens et al, 2009; Peris & Hinshaw, 2003).

Classroom Observations conducted at a London comprehensive school

In this phase of my research I conducted some classroom observations in a London comprehensive school. The purpose of these observations was to see through observation alone whether any pupils were exhibiting characteristic behaviours of ADHD, as defined by the APA, DSM IV manual. This would serve as a starting point for a further assessment of needs and a possible referral to external specialists. Being an all girls' school there was an added dimension in that it is considered in the literature that girls' problem behaviour is displayed differently from boys. Girls are more likely to display difficulties with emotion and depression rather than the more overtly aggressive behaviours of boys

As part of my research at this school I was invited to carry out observations of three groups of students. However, for the purposes of this research, only one of these observations was reported as an illustrative example. The reason why only one of the classroom observations was reported on was that only one of the observed student's was displaying behaviours that could have been associated with ADHD. The observations were authorised by the school Special Educational Needs Co-ordinator (SENCO) and the groups had an age range of 11-16 years. The purpose of these classroom observations was two fold. Firstly, it was to see if I could identify any student who was causing a concern to the teacher as a result of ADHD characteristic behaviours. Secondly, it was to give an example of how ADHD 'symptoms' and characteristic behaviours can manifest themselves in the classroom, possibly leading to problems being attributed to ADHD. Typically, problems presented in the classroom, which may be attributed to ADHD, are social-emotional and behavioural difficulties (SEBD), inattention and withdrawn behaviour, aggressive, boisterous and

disruptive behaviour that is more common in boys than girls. In a study on academic achievement and progress for students displaying inattention, hyperactivity and impulsiveness, Merrell and Tymms (2001) noted:

Whether or not children are formally diagnosed as having ADHD, if the type of behaviour associated with this disorder is exhibited at a frequent and severe level by a significant proportion of pupils and appears to impede their academic progress, it is important for teachers to be aware of this. The results of this study have suggested that this could well be happening. (Merrell & Tymms, 2001: 54)

Analysis of classroom observation

I observed an English lesson consisting of 30 students (Appendix 7). The lesson was chosen by the SENCO and in consultation with teachers in the school. The direction of the lesson was largely teacher-led with some question and answer interaction from the students. The topic was on how news reports and headlines were set out by newspapers in order to attract the readers' attention and interest. Students were required to design their own front page. The students were seated in the classroom around tables in groups of four to six. After the teacher explained the task, the students discussed how they would undertake the task and design the page format. After a few minutes, the students set about designing the newspaper's front page and were generally enthusiastic and engaged. However, one of the students clearly stood out from the rest of the class and was not paying much attention to the teacher or to the task.

For the purpose of anonymity, I will refer to this student as Trish. This student was chosen for observation because she was exhibiting some of the behaviours that could be attributed to ADHD, such as inattention and restlessness. I later discovered that she did not have a diagnosis of ADHD. My observation was for a period of 30 minutes

and for analytical convenience and simplicity I have divided the lesson into five-minute segments.

Observation notes

0-5 minutes: After the initial settling down period and after the teacher had given instructions, the students set about the lesson task which was to design a front page format for a news report. I noticed that one of the students appeared not to be listening to the teacher's instructions, as she was fiddling with some photographs and talking to another student. She did not start her work at the same time as the others and was clearly off-task.

5-10 minutes: After the first five minutes, the teacher spoke to Trish. The student was looking through her diary and distracting the girl sitting next to her by persistently talking and showing the girl her diary. Trish had still not started the designated task and was preventing her friend from working. Trish appeared to be excited about something unrelated to the lesson and was far more interested in the contents of her diary than the content of the lesson.

10-15 minutes: After about fifteen minutes, Trish started to settle and attempted to begin the set task. However she continued to talk excessively and distract her friend on the table. She paid little attention to the task and was continuously talking to her friend and distracting her from working.

15-20 minutes: The teacher stopped the session and spoke to the group about the format of the front page and gave some suggestions for the layout and style. Trish

appeared not to be listening to the teacher as she continued to talk to the girl next to her and continued to be distracted by fiddling with some items in her bag. After the session re-started, Trish continued with her unrelated activities and remained off-task.

20-25 minutes: After about twenty minutes, the teacher stopped the group again and asked for some feedback on individual's work. Trish appeared not to be listening or paying any attention to the teacher and began to rush and copy her friend's work.

25-30 minutes: end of lesson.

Throughout the session, Trish was talking to and distracting her partner. She was constantly fiddling with things like photographs and her diary and completed very little work. Trish also appeared to be disinterested in the lesson and far more interested in the contents of her bag and in talking to her friend. Apart from the last five minutes or so of the lesson, she did not attend to the lesson task and continued to talk and distract her friend, who did attempt to complete the work. Trish did finally attempt to complete some of the work by copying from her friend's book. However, Trish only completed a minimal amount of work and did not seem bothered about finishing the task. When the bell sounded to end the session, Trish was quick to react and pack away her belongings but, surprisingly, she was not in a hurry to leave the classroom for the next lesson.

Discussion of key findings from the observations

On this lesson observation, this student would have met at least six of the criteria for the 'inattention' sub-type of the APA diagnostic manual (Appendix 11). As an

example, the diagnostic manual specifies that difficulty in sustaining attention, failure to finish schoolwork and apparent inability to listen to what is being said are all characteristic behaviours. However, according to Merrell and Tymms (2001) the additional guidance in the DSM manual regarding symptoms being present in at least two settings and over a period of six months is designed to reduce the chance of individuals whose behaviour is temporary or situationally specific being misdiagnosed and, more importantly, mistreated. Scotti et al (ibid) argue:

Whilst the descriptive diagnostic criteria in the DSM-IV are an adequate starting point for the diagnosis of a disorder such as ADHD, any diagnosis should also utilise functional analysis, which considers the behavioural symptoms within the context of the individual with the aim of implementing an effective treatment plan. (See Merrel and Tymms, 2001: 44)

It is clear therefore, that although this student was displaying some of the characteristic behaviours matching those of the DSM criteria for the 'inattention' subtype, a conclusion could not be drawn as to the existence of ADHD or any other syndrome on this basis of only one observation. Nevertheless, this student was clearly causing low-level disruption by distracting others from their work and by not concentrating on her own work or completing the task.

It could be argued that an insubstantial amount of learning by this student was taking place in the lesson, as concentration on the lesson task appeared to be very limited. It is also possible that this student could have simply been bored with the lesson content or by the teacher. There could have been other distractions preventing this student from concentrating and working, such as the contents of her diary, photos, etc.

There might in such cases also be issues concerning the teachers' interaction with the students and the classroom environment and whether students were being fully

engaged in the lesson. For example, would this student be better working on her own or sitting nearer to the teacher? There are many issues that need to be considered before a medical or behavioural disorder can be identified. A wide range of factors involving social, educational and biological issues need to be considered by all those involved in the process of identification and diagnosis of any developmental or neurological disorder. Therefore this student's behaviour would need to be monitored over a period of time, in several lessons and in different settings. Observations of the student would also need to be carried out by a range of professionals before any cause could be established. Before an accurate identification of ADHD or formal diagnosis could be made, many other factors would need to be considered, including family history and other diagnostic and observational information.

Conclusions were drawn from the observations through a theoretical triangulation of data obtained from the literature on ADHD and from interviews held with a neuro-developmental paediatrician who specialises in ADHD. Reference was also made to the DSM and ICD diagnostic manuals (Appendix 11).

As discussed at length in this thesis already, Attention Deficit Hyperactivity Disorder is an umbrella term that describes clusters of symptoms. The diagnostic criteria for ADHD have been revised several times as more information about the condition has become available. The three subtypes in use are: Combined type, Predominantly Inattentive type and Predominantly Hyperactive/Impulsive type. (Appendix 11)

In order for this observed student to qualify for a diagnosis of ADHD, according to the diagnostic criteria of the DSM and ICD manuals, the symptoms would need to

have been present before the age of 7 across at least two settings and to have persisted for at least six months. In view of this it would be impossible to identify this student as having ADHD or to make a medical diagnosis on a single observation. However, characteristic behaviours, if persistent and demonstrated over a period of time, could trigger a cause for concern and lead to further observation by the class teacher and the school's SEN department or SENCO. However, the purpose of these observations was to see if there was any evidence of students displaying ADHD type symptoms or related disorders in the classroom and whether this became problematic for the class teacher or any of the other students. Observation of characteristic ADHD behaviours such as inattention or problems with conduct without guidance and expert input by suitably trained and experienced staff could lead to misidentification of a disorder and subsequently inappropriate support.

A teacher's primary concern in the classroom is the educational and social progress of the students in his/her care and, the promotion of 'spiritual and moral' values to produce educated and rounded citizens who can take an effective and productive role in society. Most teachers want children to succeed and be successful: after all, they are 'all our future'. This may sound an idealistic and profound statement of aims, but this is what teaching is all about and why many people may become teachers in the first place. However there are two key barriers confronting teachers in the achievement of these aims. Firstly, a child's difficulties with learning and, secondly, a child's difficulty with controlling behaviour and thus being able to access learning.

How then do teachers cope with the assessment and identification of children with complex special educational needs in the classroom? In some respects an analogy can

be drawn between a General Practitioner (GP) and a school SENCO or head of SEN. Doctors, as general practitioners, do not necessarily specialise in any one area of practice in medicine. Instead, they have a generic training and role in treating a wide range of comparatively common ailments affecting adults and children. When they are faced with a patient who has a more complex problem that requires further diagnosis or a specialist input, they will make a referral to a hospital or clinic for assessment or consultation by an 'expert'. The consultant will carry out a number of tests in order to make an accurate diagnosis of the problem or condition and will report these findings back to the GP for treatment. This is a very similar process to that used in schools. When the class teacher is faced with a complex problem that is beyond their expertise they will, initially, make a referral to an 'expert' who in the case of schools will be the SEN-coordinator or Head of SEN for further assessment. If the school's Head of SEN or SEN coordinator cannot 'diagnose' or resolve the problem, then a specialist, external to the school, will be called upon for further consultation and assessment. Thus, a long process of assessment and diagnosis will be instigated on top of any prior period of classroom assessment that may have taken place. With conditions such as ADHD and other complex neurologically based problems, the class teacher, and in many cases the SEN coordinator, simply do not have the training or expertise to 'diagnose' or identify these problems. The OFSTED (2004) Report: '*Special educational needs and disability: towards inclusive schools*' suggests that although 'much effective work has been done by SENCOs and specialist support services to develop staff awareness' (OFSTED, 2004: 9):

SENCOs themselves can lack confidence in developing provision in their schools for pupils with EBSD. Many have significant experience in teaching pupils with a range of learning difficulties but have not been expected in the past to take on the responsibility for pupils with behavioural difficulties. (OFSTED, 2004: 9)

This leads us to a key point in our discussion of these research findings, according to Lovey (1998) ‘the increasing instances of children being diagnosed with ADHD seems, at times, to contradict the accepted wisdom of the ‘Warnock Report’ (Lovey, 1998: 30). Lovey goes on to express concern about, ‘all those educationalists who convinced teachers that when a child had problems it was a mismatch of curriculum or pedagogy with that child rather than a problem within the child’ (ibid). Regarding the question of knowledge and expertise in the process of diagnosis, she suggests that:

Although an increasing number of teachers are attending courses to learn about ADHD there are still many who have heard of it only as a syndrome, which is treated by drugs to change the child’s behaviour. (Lovey, 1998: 30)

During this research I interviewed teachers and classroom support workers on their perception and knowledge of ADHD in the classroom and how best these students could be supported. The results of this research demonstrate that teachers and support workers have a basic ‘textbook’ knowledge of the underlying causes and problems associated with the ADHD syndrome and how characteristic behaviours may manifest themselves in the classroom. The research indicate, however, that teachers and support workers both viewed the condition as being a medical condition that affects behaviour and learning and, when a diagnosis has been made, is usually treated with drugs. Furthermore, there was a fundamental difference in attitude when it came to strategies to deal with ADHD when it presented problems in the classroom. The findings indicated that whereas both teachers and support staff viewed ADHD as a ‘medical condition’, the classroom support workers considered that treatment with drugs was an essential part of any strategy to overcome classroom problems, particularly where there was a problem with negative behaviour and conduct. Teachers, on the other hand, were willing to consider a range of other classroom strategies to manage the problem thus reflecting psychosocial solutions rather than

drugs alone. The results reflect an important point with regard to knowledge and training and the implications of the importance of understanding the needs of students with complex psychosocial problems. Lovey's earlier work (1998) supports these findings and suggests that the training of teachers in ADHD and therefore, improving their understanding and support, is paramount to the success of these students:

Experienced teachers will find their own strategies to help pupils with ADHD once they understand the difficulties of these children. The need for continuing teacher education in this area is of paramount importance. Skill and insight in catering for the needs of pupils with ADHD in the classroom will serve the needs of all children with emotional and behavioural difficulties. (Lovey, 1998: 36)

A further problem for the classroom teacher in the identification of ADHD, and other neurologically based disorders in the classroom, is that without behavioural problems and associated disruption, the subtlety of the condition's symptoms may go unnoticed by the 'untrained' teacher. According to Cooper and Ideus (1996), referring to the diagnosis and incidence of ADHD:

ADD without hyperactivity (mainly inattentive type) is often under-diagnosed. This under-diagnosis is often attributed to the fact that although chronic inattentiveness can cause severe learning problems, it does not tend to lead to openly disruptive behaviour. (Cooper and Ideus, 1996: 11)

Cooper and Ideus (ibid) go on to suggest that 'the child whose main problem is a lack of attentiveness will, rather than disrupt lessons, fade away into the background and be ignored by both teachers and peers'. The failing of teachers to identify the 'symptoms' of ADHD early, and the consequent under-diagnosis and lack of support for the disorder, can have far reaching and life-long implications for the child's well being, social and educational outcomes. According to Cooper 'without intervention, as years go by, the 'difficult' child with ADHD-related family problems, peer rejection, academic failure and decreasing self-esteem appears to be at significant risk for developing into a maladjusted adult' (Cooper and Ideus, 1996: 78) The lack of

early identification and lack of effective intervention strategies for students with ADHD and EBD can lead to problems of poor attendance, exclusion and underachievement because ‘their learning needs remained unidentified for too long’.

Thus, OFSTED (2004) makes the following comment:

Assessment and planning for pupils with EBSD were often particularly weak. Individual education plans for these pupils often did not bring together targets for both improved behaviour and improved learning, despite the fact that generally the two are closely connected, with pupils learning more as their behaviour improves and vice-versa. (OFSTED, 2004: 12)

The consequence of this lack of identification and failure to meet the needs of these students is that, according to the DfES, ‘only a third of secondary schools were effective in meeting the needs of pupils with emotional and behavioural difficulties’ (OFSTED, 2004: 15).

The difficulties facing both teachers and SENCOs in meeting pupil’s needs are further compounded by the variability and complexity of the multiple problems affecting pupils on a daily basis in schools. For example, from my own experience as a SENCO, when I was presented with a child on medication for ADHD I found that behaviour and concentration levels varied depending on dosage levels and the critical timing of the dose. I found that you could often tell when a dose of medication was due or had been missed. A missed dose often resulted in increased levels of irritation and attention resulting in off task behaviour or aggressive outbursts. A possible solution to this situation was to send the pupil to the medical room for his/her medication (tablets were usually held by the school office and/or parents for administration to the pupil) or to change the pupil’s task to help alleviate any anxiety or stress. In more extreme cases of aggressive or unacceptable behaviour the pupil might have needed to be removed from the room for a short period of time.

Findings from the Policy Analysis.

The rejection of the 'medical model' of special educational needs and 'within child' factors have in many ways created a new form of exclusion for students with complex medical related and psychosocial conditions. These students either go unnoticed in the classroom or are considered to be the problem of someone else. Teacher's perception that, conditions such as ADHD are medical and to do with negative behavioural problems, means many of these students may not be receiving the appropriate forms of interventions necessary for them to succeed. As a consequence, many students with ADHD and EBD will become disaffected by their educational experience, will behave negatively and will probably end-up being excluded from the system. In a national study by Norwich et al (2002) on attentional and activity difficulties, the researchers found that out of 97 children with significant attention and activity difficulties only six children (6.2%) had an ADHD diagnosis. They go on to say that 'by contrast, 25 children (26%) with hyperactivity difficulties were receiving special education' (Norwich et al, 2002: 186). On the question of unidentified ADHD the researchers go on to suggest that:

The full extent of unidentified and unmet needs in relation to these kinds of difficulties cannot be determined from this study. It may be that some children in this 72.2% would not turn out to have persistent and severe difficulties. But even if, say, only half the group turned out to have persistent and severe difficulties, this would still indicate a substantial degree of unidentified difficulties. (Norwich et al, 2002: 186)

In a study by Merrell and Tymms (2001) the researchers found that 'the underachievement of children meeting a high number of criteria relating to the combined and predominantly inattentive subtypes of ADHD would seem to be a consequence of their behaviour and not learning difficulties' (Merrell and Tymms 2001: 54) However the authors go on to suggest that:

Whether or not children are formally diagnosed as having ADHD, if the type of behaviour associated with this disorder is exhibited at a frequent and severe level by a significant proportion of pupils and appears to impede their academic progress, it is important for teachers to be aware of this. (Merrell and Tymms, 2001: 54)

In addition, the authors consider that where types of behaviour associated with ADHD have not been formally diagnosed, they ‘should be investigated and compared with children who have been diagnosed to see if they are at risk of similar outcomes’ (ibid)

The findings from the documentary analysis for this thesis were that a dilemma exists with regards to the teaching of children with ADHD and EBD. Teachers and in many cases SENCOs do not have sufficient training, knowledge or experience of these types of disorders to instigate early identification and intervention. The DfES acknowledges that, ‘SENCOs themselves can lack confidence in developing provision in their schools for pupils with EBD’ (OFSTED, 2004: 9). Lack of specific training for EBD is not always the fault of the teacher however. A survey conducted by the Teacher Training Agency ‘found few training opportunities for specialist staff working with pupils with EBD’ (DfES, 1997: 85) A later Report published by the DfEE (1999) ‘*Emotional and Behavioural Difficulties in Mainstream Schools*’ commenting on policy and support for pupils with EBD found, that:

Many of the interviewed teachers were unaware of their LEA’s policy on EBD. Further there was no widespread, co-ordinated, multi-agency approach to meeting these pupils’ needs either nationally or within LEAs (DfEE, 1999: 4)

The report also refers to the lack of specialist training opportunities that are generally available in schools for teachers about pupils with EBD and suggests that:

Time and resource pressures result in schools being forced to accord staff development and support a lower priority than they would wish. Given the limited understanding of many staff of EBD and general behaviour management issues this needs remedying (DfES, 1999: 4)

The issue of the mismatch between the demands of the SENCO role and appropriate resources to carry out the job effectively is still seen as a major problem in the prior literature and research findings in the field. In 2003 the National Union of Teachers conducted a major survey on the role of the SENCO and the revised SEN Code of Practice (NUT, 2003). One of the key conclusions in the survey was that ‘supporting children with special educational needs is being undermined by lack of funding’ (p.1). The report goes on to say that some seventy-six per cent of SENCOs stated that insufficient funding prevented them from carrying out their job effectively. Further to this, some forty-per cent said ‘there was not sufficient support for pupils with SEN’ (ibid). The NUT survey also found shortfalls in the funding of external support services especially for speech and language specialists and educational psychologists. The Report highlights that this lack of funding permeates through the system and effects training needs of teachers and support staff. This lack of funding both for time to carry out the job and the funding for essential services is a crucial factor in supporting children with SEN and needs to be addressed by government.

The focus of this research thesis is on the identification and support of children with a range of social, emotional and behavioural difficulties including those with more specific difficulties such as ADHD. It is suggested from the research findings that a lack of funding and training for teachers is preventing effective support for some types of SEN. The findings confirm the earlier results of the NUT survey, which found that:

Further training on how to meet the educational needs of pupils with severe emotional, social or behavioural needs was highlighted as a key training requirement. A large number of respondents discussed the need for further training for themselves and colleagues on how to handle disruptive pupils and pupils with challenging behavioural needs. One SENCO spoke of the need for further training for dealing with emotionally disturbed teenagers.

On the specific issue of whether training needs were being met, the Report goes on to suggest that ‘the importance of professional development, and lack of it, was consistently raised by teachers, heads and TAs as a critical issue if inclusion policies were to have any prospect of success’ (p.37). In a report by MacBeath (2006) it was found that ‘mental health remains an area where some children’s needs are not currently being met due to lack of diagnosis and recognition that children too can suffer from anxiety and depression, even from an early age (p.16) The results of this lack of detection and diagnosis of ADHD and other social emotional and behavioural problems have contributed to an increase in exclusion for this group of students. Consequently, ‘the proportion of pupils in pupil referral units has risen by 25% between 2001 and 2003’ (OFSTED, 2004: 7). According to the Department for Children Families and Schools (DCFS, 2009) there are about 450 PRUs in England, catering for 25,000 pupils.

In more general terms the progress of the governments’ framework for inclusion has not had the success that was hoped for. Accordingly, ‘The framework has had little effect as yet on the proportion of pupils with SEN in mainstream schools, or on the range of needs for which mainstream schools cater’ (OFSTED, 2004: 5). A major contributory factor in this lack of progress with inclusion has been due to the increases in the numbers of pupils placed in pupil referral units (PRU) and independent special schools, such as those that cater for pupils with EBD and other complex difficulties. Thus:

Particular doubts were often evident in the case of pupils with SEN whose behaviour was difficult. Overall, the issue of admissions of pupils with social and behavioural difficulties was proving the hardest test of the inclusion

framework and the one which conflicts between meeting individual needs and 'the efficient education for other children' was the most problematic to reconcile. (OFSTED, 2004: 8)

The 2004 Report concludes that 'the admission and retention of pupils with social emotional and behavioural difficulties continue to test the inclusion policy' (OFSTED, 2004: 5). This view by OFSTED concerning the retention of students with EBD is also echoed by research in the United States by Marder (see Landrum et al, 2003: 148) in that 'it has been estimated that 43% to 56% of students with EBD drop out of school, a rate almost twice that for students with disabilities'. Kauffman (2001) comments that 'moreover, probably only a fraction of those who need intervention for their emotional or behavioural disorders are actually identified and served'. Generally, poor attendance and exclusion are a result of disaffection and are often indicators that things are not going well in school. In the case of complex difficulties such as ADHD, disaffection and the consequent behavioural problems and/or lack of attendance are probably brought about by the failure to identify these conditions early and consequently give appropriate support. OFSTED (2004: 17) acknowledges that 'only a third of secondary schools were effective in meeting the needs of pupils with EBD'. OFSTED go on to suggest that:

The pupils with the most significant behaviour difficulties, who required specialist teaching approaches, were seldom as successful in secondary schools. Their learning needs remained unidentified for too long. (OFSTED, 2004: 17)

This acknowledgement by OFSTED highlights a growing dilemma in the inclusive classroom in that teachers do not have sufficient expertise to identify complex neurological learning difficulties before they lead to more significant problems and, in some cases they remain unidentified for far too long. Moreover, the procedures outlined in the Code of Practice for referring students for external support or diagnosis

of a suspected disorder, are lengthy and bureaucratic. The length of time involved in assessment will be dependent on several factors and will necessarily include the expertise of teachers, efficiency of the school, cooperation of parents and the effectiveness of the LEA support services/health services. In the meantime, the needs of some students remain unmet and this has led to an increase in both the numbers of exclusions and increased referral to pupil units and independent special schools. Accordingly, 'this trend in part reflects the difficulties that mainstream and some special schools have in meeting severe or complex needs' (OFSTED, 2004: 7).

The findings of the current research study from the questionnaires, interviews and policy analysis are that, 'inclusion' does work for the 'vast majority' of children and young people with special educational needs, as is also reported nationally in the Code of Practice (2001). ('Vast majority' is a term used by the DfES Code of Practice, which I have adopted in this thesis.) However, there is a growing number of young people entering the mainstream classroom who have such complex difficulties and behaviour that mainstream schools and teachers are simply not equipped to deal with them. This is not solely the fault of teachers. Perhaps because they have been 'hit' with so many educational initiatives in recent years, it is not surprising that a level of prioritisation has necessarily taken place. The modern classroom teacher is indeed a teacher of special needs. They have to be, because, in some cases, up to half of the children in the 'inclusive classroom' can be on the 'register' for some form of special educational need. However, increasingly, there are children entering the classroom from both special schools and mainstream primary schools who have very complex difficulties such as ADHD that may affect their behaviour. Thus according to OFSTED:

Nevertheless, newly trained teachers often report that their initial training contained very little specific guidance as to how to understand and manage pupils' difficult behaviour (OFSTED 2005: 12)

It would be wrong to assume that teachers in special schools or pupil referral units are necessarily any better equipped to manage behavioural problems and this is also acknowledged by government as being a weakness. Thus:

Many teachers in the PRUs have had little experience of working with pupils who have EBSD and, even in effective PRUs, training opportunities to develop strategies for working with the most difficult pupils are limited. (OFSTED, 2005: 12)

Of course not all young people with complex difficulties such as ADHD have severe behaviour difficulties nor are destined for PRUs. However, OFSTED (2005:12) acknowledge that 'in many schools visited pupils needs are identified too late' and this can lead to a crisis and belated action.

The majority of children with more complex neurologically based problems such as autism and ADHD will require the intervention of external support services. Schools do not get these services automatically - they have to 'buy-in' these services as required and in the case of complex problems will need to make a referral to these centres for assessment or a diagnosis to be made. However, this thesis highlights that referral to these centres can be a lengthy procedure and eventual assessment can take several months to complete. Communication between schools and external professionals is seen as essential in supporting and assessing children's needs and this forms part of the DfES Code of Practice guidelines on a partnership approach to meeting the needs of these children. However according to OFSTED:

There are still many instances where the communication between schools and professionals is weak, and different organisations fail to provide well-informed, co-ordinated advice and treatment. In about half the schools procedures for working with external professionals are unclear and information is not shared effectively. (OFSTED, 2005: 21)

The 2005 OFSTED Report *Managing Challenging Behaviour* again highlights weaknesses with access to these services: ‘at least half the schools reported difficulties in accessing support as a result of staff shortages’ and goes on to state that ‘support from educational psychologist is insufficient’ (ibid). This problem is a direct result of under funding of support services and means these services have to operate quotas and be selective when referrals are made to them. The pressures on educational psychologists who work in or from these centres are a good example of this under funding. This exposes the difficulties in recent years with recruiting and retaining EPs to work with Local Authorities. The result of this is that when one does need the services of these key professionals, it will be found that they have huge caseloads involving several schools and therefore time and consequent advice and support is very limited. A vicious circle is thus created because teachers and schools lack the expertise and training to support certain children’s SEN. Local Education Authorities lack the funding and resources to supply specialist training and external support services such as EPs and other specialists and therefore cannot meet the demands placed upon them. In turn, a growing number of young people with complex needs and difficulties are not having those needs met either inside or outside the classroom leading to further difficulties with learning, disaffection and in some cases exclusion.

As reported earlier the recent advances in neurobiological research have established the psychiatric disorder known as Attention Deficit Hyperactivity Disorder (APA 1994, 2000). Although research into the causes of the disorder has failed to discover a common genetic cause, neuroimaging studies have discovered deficits in brain functioning attributable to ADHD that affects cognitive processes, thus affecting learning. This has led to a far greater understanding amongst medical professionals of

the effects of subtle brain anomalies that create learning and behavioural problems for those who suffer with the disorder. Research into the disorder has also established that ADHD is a heterogeneous disorder that exists alone but can also be co-morbid with other disorders, thus confusing its identification and subsequent diagnosis.

Unfortunately this co-existence with other disorders has led to a degree of diagnostic confusion amongst medical practitioners and therefore assessment of ADHD characteristics that lead to diagnosis is necessarily a lengthy process involving family history, reports, checklists, observations and clinical assessment.

In schools there is further confusion concerning the identification and diagnosis of ADHD. Some teachers and indeed some experts are sceptical as to whether ADHD actually exists as a medical condition or whether it is a socially constructed disorder that only manifests itself under certain conditions and in certain environments (Sayal et al, 2006). This view has not been helped by subsequent government special needs legislation that has removed the acceptance of 'within child' or 'deficit' models of special educational need and replaced them with more generic terms to describe children's physical and learning needs. This has created a 'lumping effect' where children, regardless of their individual and special needs, have almost been subsumed into a single category (see SENCO Forum comment, 22nd April 2009). The use of generic terms such as 'special educational needs' has created a situation where some children with complex problems receive the same level of support as children with less complex needs. A consequence of this is that children who need high levels of support such as those with diagnosed ADHD and autistic spectrum disorders (ASD) are not always receiving the specialist input required and thus may become disaffected leading to social difficulties, conduct problems and further deficits in

learning. Teachers are not solely to blame for this situation, as since the early eighties and the move towards the greater inclusion of children with physical and learning needs into mainstream schools, there have been increasing numbers of children with special educational needs who would previously have been educated in special schools entering the inclusive classroom. Some of these children will have very complex neurological conditions and some will not have received any formal diagnosis. Government funding changes that have switched financial resources to schools for the 'purchase' of external support services has created a further problem. Schools have been forced to prioritise where these limited funds are spent, thus greatly reducing essential services such as educational psychology, speech therapy and behaviour support services. Teachers will therefore need to develop a far greater understanding of complex neurological conditions such as ADHD, Autistic spectrum disorders and dyslexia if they are to meet the unique and individual needs of these children, develop effective programmes and prevent disaffection leading to further learning difficulties, conduct problems and possible exclusion.

The current Code of Practice replaced the original Code published in 1994 and was amended to take into consideration the effects of the Children Act (1989) and the Disability Discrimination Act (1995). The emphasis throughout the Code is on guidance in order to meet the statutory obligations as outlined in the various Education Acts affecting the education and welfare of children and providing for their special educational needs. The guidance in itself is not statutory but schools and other agencies 'are required to have regard to this Code' (DfES 2001). The Code also acknowledges that 'for the vast majority of children their mainstream setting will meet all their special educational needs' (ibid). Indeed the majority of SEN students in

mainstream schools will have their special needs met at the 'school action' stage of the Code where provision is through a normal differentiated curriculum plan or some additional provision through an Individual Education Plan to target any specific needs such as support for reading or writing difficulties. However it is where more complex needs are being supported that problems begin to emerge with regard to bureaucracy and resources of time.

When a child with SEN has more complex needs that are not being effectively addressed in the classroom and thus progress is seen to be slow and detrimental to the child, it sets off a chain of events that can be very time consuming and problematic for the teacher, the school and in some cases the child. The placing of a child at the school action plus stage of the CoP involves referral and intervention from external support agencies. However before this decision is made by the school, a number of meetings and consultations will have to take place in order to decide what levels of support are required and will involve teachers, parents the child and specialists such as educational psychologists and/or other agencies:

Teachers have a great deal of expertise in identifying and meeting the needs of their pupils. External support services can however play an important part in helping schools identify, assess and make provision for pupils with special educational needs. (DfES, 2001 Code of Practice: 135)

However, before external agencies become involved in any support plan or assessment, the teacher and the school will have to go through a number of internal and time consuming procedures such as recording observations, compiling reports, discussing progress with other teachers, discussing progress/problems with parents, assessing whether the curriculum is suitable, deciding if there are any other factors affecting progress such as bullying or disharmony at home and signs of any physical, mental or medical factors that may require pharmacological intervention. Once the

internal assessments by the school have been made and a clear picture of the problem is arrived at, a referral and consultation with an appropriate specialist can be made. These internal procedures can take several weeks or even months to compile and may have only been instigated after a lengthy period of decline in the child's performance or behaviour. Once a decision is made that external support or further assessment is required an external service or specialist will be consulted. This however will set off a further long chain of procedures, paper work, meetings, observations and consultations and may involve educational support, medical support, parental support, medication or a combination of all of these. In the meantime, the child may be struggling to cope with a variety of difficulties that affect progress and social integration. Teachers and the government will need to acknowledge that in order to meet the requirements of the Code of Practice with regard to 'early identification', 'effective provision' and that 'the child's needs will be met', procedures for referral and assessment will need to be streamlined in a simpler and far less bureaucratic way. Additional resources will also need to be put in place to reduce the caseload of some external specialists and increase their number. This will help to prevent the situation where specialists are being required to train teachers and classroom assistants in speech therapy, behaviour management and other skills and strategies because they are unable to cover the number of schools and individual pupils requiring support.

In order to develop effective support strategies for students with complex psychosocial and neurological special needs, a return to the 'medical' and 'within-child model' of describing these groups is now required in the light of advances in neurobiological research and diagnostics.

To summarise the earlier discussion presented on policy, this thesis notes that the 1944 Education Act was fundamental in that it introduced compulsory post-elementary education for all children and established the principle that all children are educable and that their needs should be met within the school system (Clough, 1998). However, although the principles of the Act established a move towards an inclusive education system, it also led to the establishment of separate forms of provision for disabled groups. Thus, children in these groups became excluded from their mainstream peers. The 1944 Education Act became criticised in respect that it placed an emphasis on 'impairment' and was geared to dealing with an individual's problems and therefore ignoring other factors that might be contributing to a child's special needs.

The 1967 Plowden Report almost reversed the ideological thinking behind the 1944 Act with regard to the cause of special educational need and thus, according to Clough, (1978) 'rejected the idea that educational 'handicap' arises from individual deficits' (p.38). It was suggested that schools and other educational establishments could be the 'disabling factor' thus establishing the notion of special needs being accentuated by factors at the school including environment, teachers and curriculum. The 1978 Warnock Report further emphasised environmental factors as contributing to a child's physical, social and educational needs and introduced the generic term of special educational needs to describe the physical, social and educational needs of children and young people. Unfortunately, the subsequent legislation since the 1944 Education Act has created a mindset amongst teachers in mainstream schools towards students with special educational needs in that the solution to supporting learning and

behaviour difficulties, whatever the underlying cause, lies in the curriculum and learning environment rather than special intervention or provision.

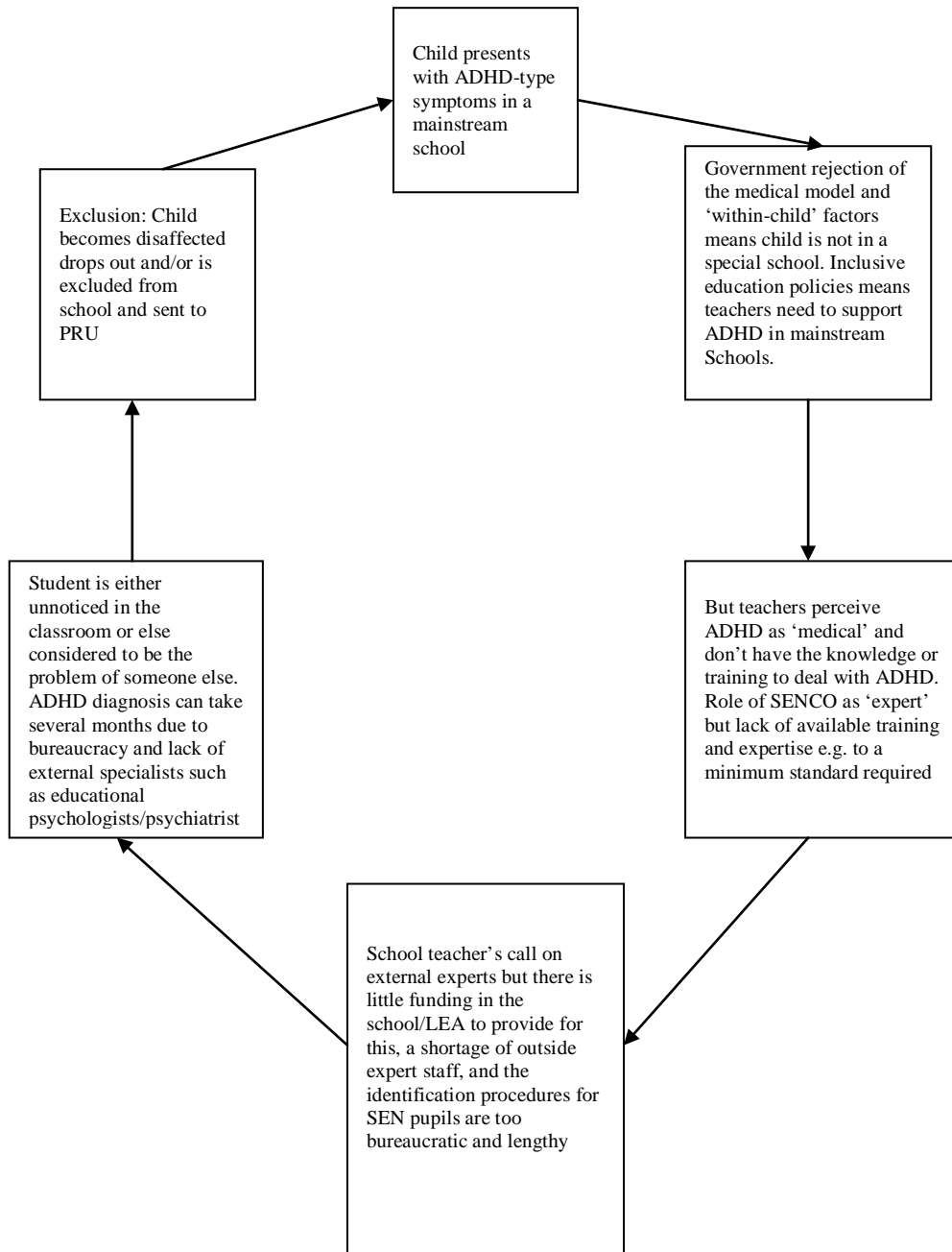
The move away from 'within-child', 'medical model', and the notion of 'deficit' was an attempt to remove the stigma of being labelled as having a disability (mental or physical) and to promote the principle of inclusion, which in many cases has been successful. Accordingly Landrum et al (2003) posit that 'teaching students with emotional and behavioural disorders demands unique interventions that are beyond that typically available or necessary in general education' (Landrum et al, 2003: 148). Teachers and government will need to acknowledge that these types of disorder require special intervention and support.

In order to fulfil the requirements of the Code of Practice with regard to early identification and intervention, teachers will require training and support in order to acquire the necessary knowledge and expertise to be able to identify neurological conditions such as ADHD. This will require a closer cooperation with medical specialists and external support services such as Child and Adolescent Mental Health Services (CAMHS). Teachers will also need to develop a greater understanding of the characteristics of these conditions and learn to differentiate between environmental causes of learning and behaviour difficulties and 'within child' neurological problems that can affect learning and behaviour. Teachers will also need to acquire a greater understanding of the disorders that co-exist with certain syndromes such as ADHD so that they can differentiate between 'normal' learning and behaviour difficulties and those difficulties caused by a distinctive or co-existing disorder. An increase in government funding for specialist training in neurobiological disorders will be required so that teachers can acquire knowledge and training beyond that of the

textbook. Increased funding will also help to address the shortages in essential support services such as speech therapy, psychological and behaviour support.

Subsequent inclusion legislation and practice has brought about many instances of good practice in mainstream schools and has been a benefit to many children categorised as having special educational needs. However, there are rising numbers of children entering mainstream schools with complex disorders affecting learning and behaviour that are not receiving adequate or appropriate support and are becoming increasingly disaffected through their lack of progress and feeling of isolation. Many of these children will not have been formally diagnosed and may even remain unidentified according to Landrum et al (2003) 'probably only a fraction of those who need intervention for their emotional or behavioural disorders are actually identified or served' (Landrum et al, 2003: 148) This has led to certain groups such as those with social emotional and behavioural difficulties increasingly becoming excluded from mainstream schools and in some cases special schools and Pupil Referral Units because their complex needs are not being met. Teachers and government will need to recognise that advances in medical science are establishing a range of new categories of disorders in children and adults that must be addressed. These disorders need to be recognised as a special educational need identified and diagnosed at the earliest possible time to prevent further difficulties arising or being exacerbated. Schools and teachers, subject to appropriate training and specialist support, are best placed to identify these disorders early, support sufferers and prevent further deterioration in learning and social behaviour.

Figure 1: The vicious circle, its causes, and a proposed solution.

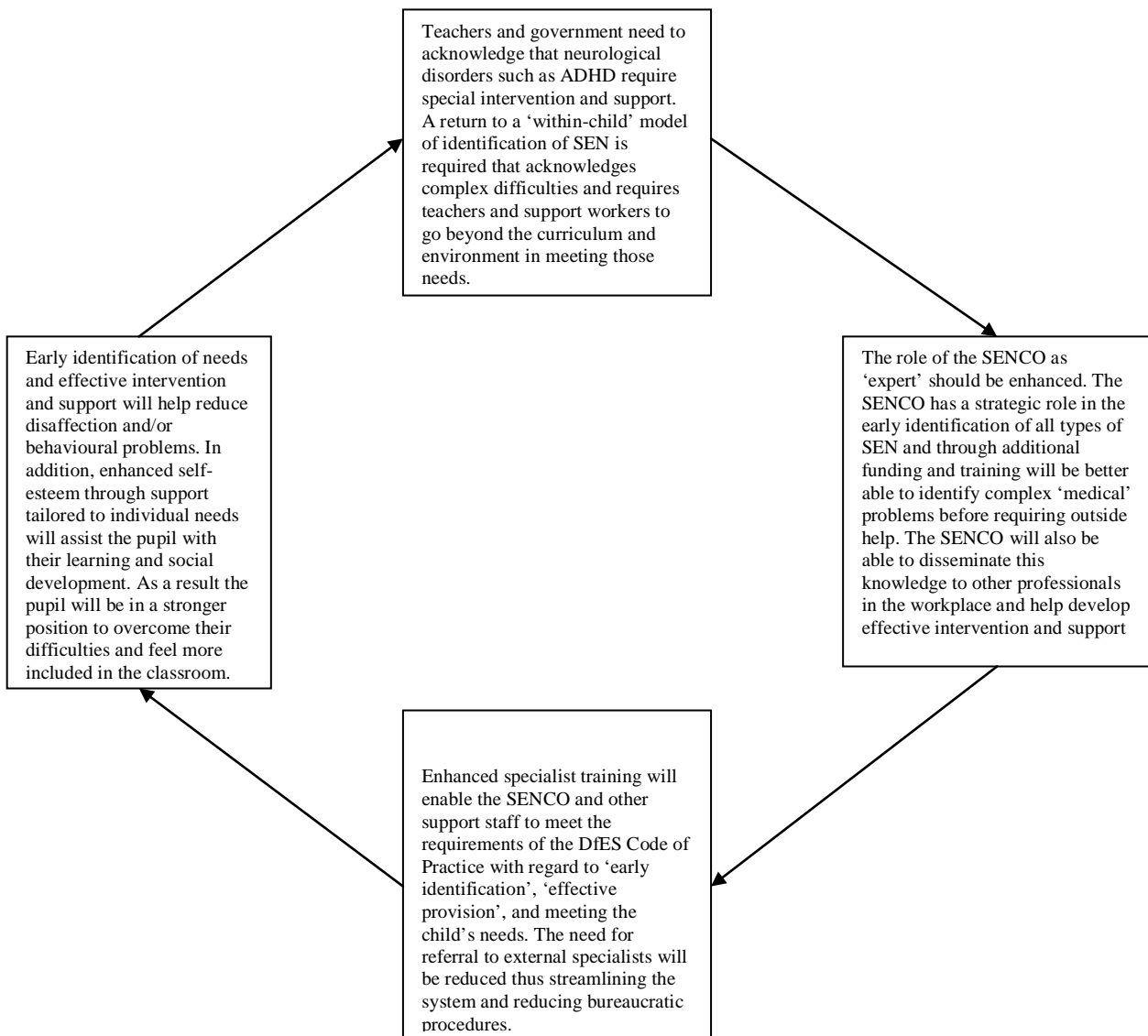


The above model visually represents the first stage of the 'vicious circle' that has evolved through Government ideological thinking and funding of SEN since the Warnock Committee Report in 1978. Many children with complex problems such as ADHD, dyslexia and even autism are not being identified at the early stages of their difficulties. This lack of identification of need can lead to pupils becoming disaffected

and may lead to behavioural problems. According to OfSTED (2004:8) ‘pupils with social and behavioural difficulties were proving to be the hardest test of the inclusion framework’.

Historically, the 1944 Education Act emphasised division and difference between ‘normal’ children and schools and those children considered to be impaired in some way and thus requiring special provision. The consequence of this was that the inclusive principles of the 1944 Education Act became exclusive practice for some disadvantaged groups of young people, thus stigmatising children with physical or neurologically based disorders by placing them in special schools. The Warnock committee (1978) accepted the findings of the earlier Plowden Report (1967) with regard to the cause/s of special educational need and thus ‘rejected the idea that educational ‘handicap’ arises from individual deficits’ (Clough, 1978:38). Children who exhibit symptoms of ADHD and/or co-existing behavioural or learning difficulties are, according to Landrum (2003), demanding ‘unique interventions that are beyond that typically available or necessary in general education’ (Landrum et al, 2003:148) As a result of undetected and under diagnosed ADHD and other social emotional and behavioural difficulties, there has been an increase in exclusions for these groups of children. Therefore a return to an acceptance of a ‘medical’ and ‘within-child’ model of special educational needs is required that acknowledges complex difficulties and requires teachers and support workers to go beyond curriculum and environment in meeting those needs.

Figure 2: How to break through the vicious circle of this new form of exclusion



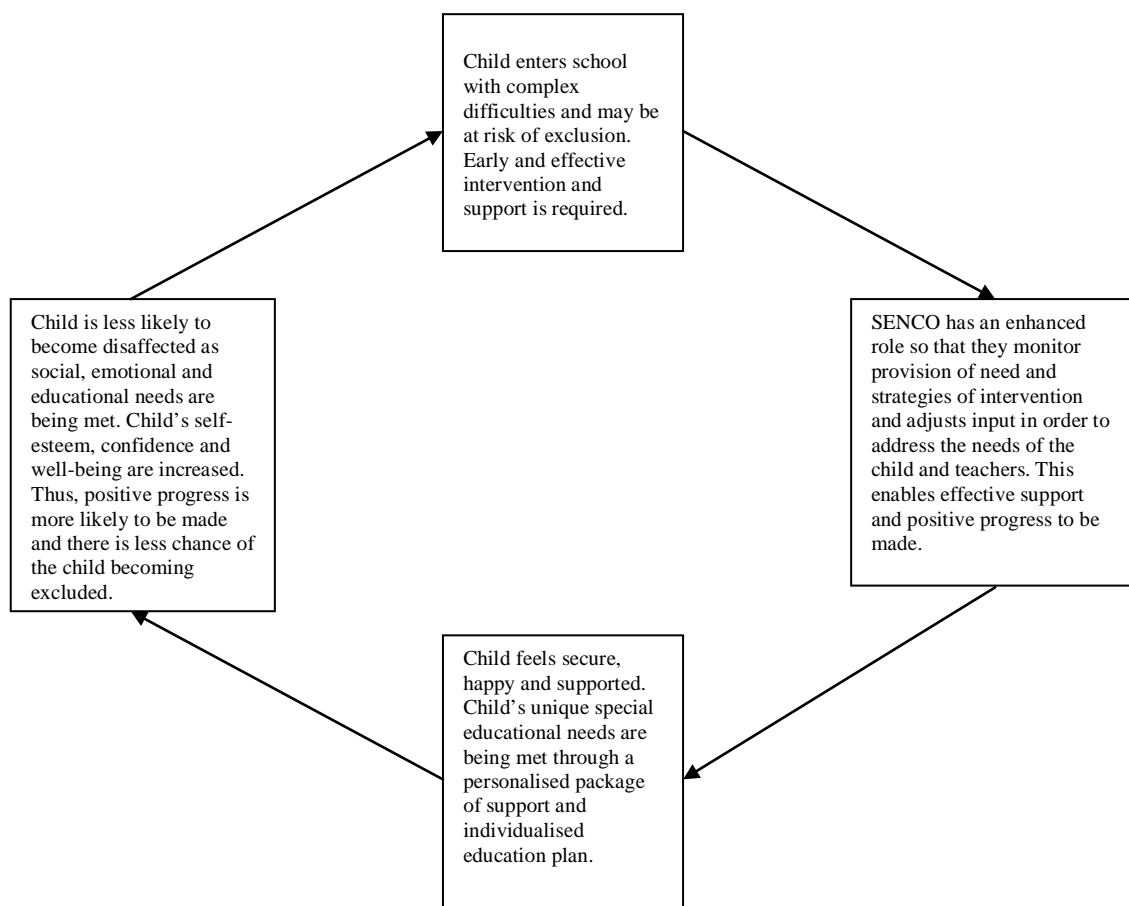
The above diagram represents the second stage of the model (possible solution) and proposes a return to or at least an acceptance of a ‘medical’ or ‘within-child’ model of identifying neurologically based SEN. The school special needs coordinator (SENCO) is the person best placed to identify complex needs early and provide the necessary

intervention and support. In order to achieve this, the SENCO will need to go beyond the coordinator role and develop expertise regarding complex difficulties that affect learning. Many SENCOs are already considered to be the 'expert'. This status could be further improved through additional funding for training and by enhancing their specialist status. At present a dilemma exists with regards to teaching children with ADHD and associated emotional and behavioural difficulties because SENCOs do not have sufficient training, knowledge or experience of these types of disorders to be able to instigate early identification and intervention. This lack of expertise and training of SENCOs has been acknowledged by government in the recognition that, 'SENCOs themselves can lack confidence in developing provision in their schools for pupils with EBD' (OfSTED, 2004:9). In a Report by The Teacher Training Agency (TTA), this organisation found 'few training opportunities for specialist staff working with pupils with EBD (DfES, 1997:85). In a more recent Report by the DfES (1999) government acknowledges that:

Time and resource pressures result in schools being forced to accord staff development and support a lower priority than they would wish. Given the limited understanding of many staff of EBD and general behaviour management issues this needs remedying (DfES, 1999:4)

Improving and developing the role of the special educational needs coordinator to enable them to identify complex social, behavioural and learning needs early should reduce the need for external support services, thus reducing lengthy referral and assessment procedures. Through this ability to identify and support complex difficulties 'in-house', the SENCO will be able to better support these children, reduce disaffection, and/or behavioural problems and break the current unhelpful cycle that so often leads to exclusion for EBD and ADHD pupils.

Figure 3: A more effective model of inclusion that meets the needs of all pupils



The ‘vicious cycle’ that this thesis has found occurs in the lack of and or slow identification and effective support of children with complex special needs is highly destructive in compounding the deficit situation such pupils face already in the classroom. My findings from the policy and literature analysis, interviews, questionnaire and observation on ADHD are that the system of so-called ‘inclusive support’ for such pupils is, in effect, massively failing many of the most critically affected. This thesis therefore proposes a more effective, enhanced model of inclusion to meet the needs of all pupils. This third model represents the effective outcome and illustrates a completed ‘cycle’ of support for children entering mainstream schools with complex difficulties such as those with a neurological basis. The enhanced training and role of the SENCO enables him/her to identify complex difficulties in the

early stages and put into place intervention strategies to meet the child's unique and special needs. Through this intervention the child is less likely to become disaffected and confidence and positive outcome is enhanced. As a result of meeting the social, emotional and educational needs of the child through identification of need at the early stages, the child's confidence and ability to overcome difficulties will be improved thus, reducing the likelihood of becoming excluded.

To illustrate this process in the context of what actually tends to occur in schools, Figure 4 depicts a flowchart demonstrating BSED/ADHD behaviour manifestation, identification and support processes in the classroom. This shows in flowchart form what may happen when a child manifests BSED/ADHD type behaviours in the classroom. Through my analysis of the data, including reflective analysis on my own prior experience, I have realised that teachers and pupils themselves are likely to have difficulties in coping with complex BSED/ADHD type behaviours and may struggle painfully for a long time to acknowledge, identify and deal with what is going wrong with the child's learning and attention in the classroom. The flowchart tracks the different conditions that may occur when (a) the teacher does or does not notice this behaviour in the classroom; (b) the pupil and/or the teacher and and/or the class can or cannot cope with the situation; and (c) the teacher attempts strategies that do or do not work. The flowchart demonstrates the lengthy processes that may occur, frustrating efficient early diagnosis and support, and the ways in which a decline in progress in learning may occur, with the pupil becoming increasingly disaffected, until such time as s/he is brought to the attention of the SENCO, is referred for external diagnosis and support and/or becomes excluded, and/or is prescribed drugs. The flowchart demonstrates these processes in the context of my proposed enhancement to the

system: a SENCO with an enhanced role, knowledge and qualifications may be able to intervene early at various stages to support both the child and the teacher. The SENCO could then act more quickly to put in place strategies to meet the child's special needs, reduce anxiety and disaffection, increasing the possibility that the child might receive appropriate treatment to enhance their learning and avoid exclusion and failure.

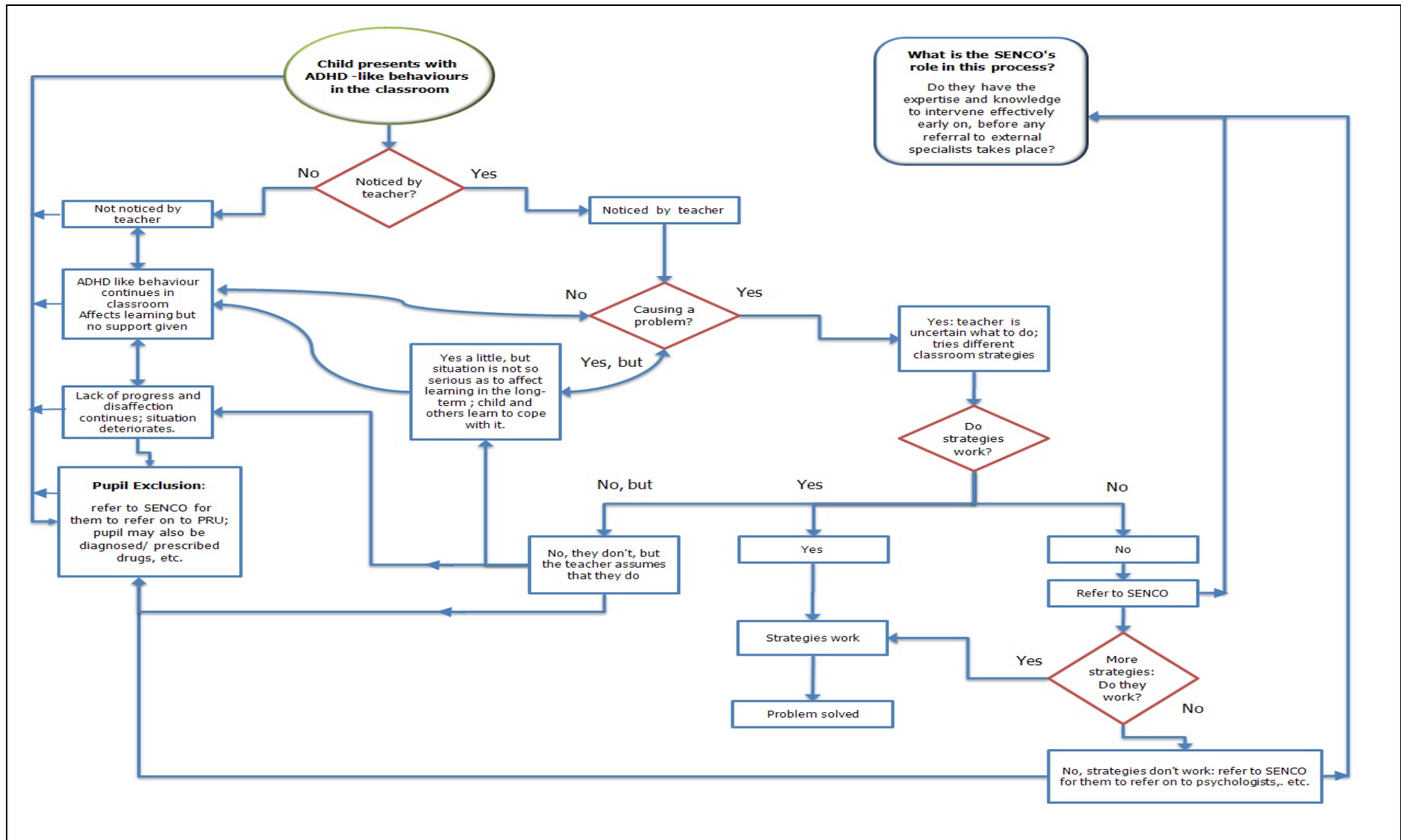


Figure 4: Flowchart of BSED/ADHD Behaviour Manifestation, Identification and Support Processes in the Classroom

Final Research Phase

In this final phase of my research I interviewed two SENCOs and a learning support manager at three large comprehensive schools in the south east of London. The first interview was with a director of learning support at a co-educational school with a role of 1500 students. This school has a large learning support department, which caters for over 400 students with a wide range of special needs. Typically the types of SEN at this school included speech and language difficulties, dyslexia, ASDs and pupils considered to have emotional and behavioural difficulties. Students with emotional and behavioural difficulties formed a large part of the SEN provision at this school and, in order to facilitate these pupils, the school has an on-site pupil referral unit where students follow a part-time inclusion programme in conjunction with the main school.

The second interview was with the school SENCO at a London girl's school, which has technology status. The school has a student role of 900 students. The school's SEN department caters for a wide range of SEN including students with dyslexia, speech and language difficulties, ASDs and EBDs.

The third interview was conducted at a large boy's school (1500), which had more than 500 students on the school's SEN register. In view of the size of the SEN department, the school has a learning support manager (deputy head status), a full time SENCO and a deputy SENCO. Although the types of special needs identified through the SEN register were wide-ranging, there was a predominance of boys considered to have emotional and behavioural difficulties.

The interview schedule targeted three key areas (see Appendix 12 for schedule). First was concerning the identification of students with ADHD (Question 1) and whether or not they had a diagnosis or a statement specifically for ADHD (Question 2). The second area targeted concerned the levels of experience (Question 3) and training (Question 4) that SEN managers and SENCOs, as participants, said they might need in order to identify students with EBD/ADHD. And the third concerned support structures and early intervention strategies for students with EBD/ADHD, and the role of the SENCO within that (Questions 5-10).

Findings and analysis

Question 1 Asked, 'How many students in your care have been identified or diagnosed with ADHD/EBD?' The results from this question varied considerably even though the three schools had very similar intakes. One of the schools had as many as 30 students identified with ADHD and more than 100 with emotional and behavioural difficulties. 14 students at this school were identified as having autistic spectrum disorder (ASD). The second school (a girl's technology school) had two students identified with ADHD and two students with ASD. The third school was unable to give me any statistical data but allowed me to view the SEN register, which showed a considerable number of students with emotional and behavioural difficulties and English as an additional language (EAL) but only identified two EBD students who were suspected of having ADHD, but without formal diagnosis, out of some 500 boys on the SEN register.

Question 2:

On the issue of whether identified students had a statement for ADHD, there was a mixed response to this question. One of the schools commented that the local authority considered ADHD/EBD as a high incidence difficulty and therefore did not issue statements for this type of SEN. The second school had one student with a statement for EBD. The third school (1500 boys) had no students with a statement for either EBD or ADHD.

A conclusion can be drawn from the earlier research in this thesis that shows students who exhibit complex behavioural problems including those identified with ADHD are considered to fall under the umbrella term of emotional and behavioural difficulties and are not necessarily issued with a statement either as a result of local authority policy or because their needs are being met through a continuum of support within normal SEN provision.

However, although many of the characteristic behaviours associated with emotional and behavioural difficulties such as lack of concentration, off task behaviour and negative attitude could be attributed to the symptoms of ADHD, they are more likely to be a result of psychological difficulties and environment than to be of a medical origin and therefore would attract the label of EBD. The core deficits in ADHD such as inattention and impulsivity or indeed hyperactivity are attributed to neurology and therefore considered to be of medical origin. (Dittrich & Tutt 2008).

Question 3 and 4:

Questions three and four concerned the levels of knowledge and experience of teachers and SEN managers to be able to identify students with ADHD or EBDs in the classroom and thus offer early intervention and support. The third question asked whether SENCOs considered they had sufficient knowledge and experience to be able to identify ADHD/EBD before having to refer students to external specialists. The fourth question referred to additional training participants felt was necessary in order that SEN managers could intervene early and thus reduce the need for referral.

The replies to these questions focused on the experience of staff to be able to identify difficulties and refer pupils, if necessary, for further assessment. One of the SEN managers stated 'I feel I and colleagues have sufficient knowledge and experience to refer kids for consideration (assessment), we will often say that a kid is or isn't'. A SENCO spoke about 'very experienced staff (40+)' being able to use their 'own knowledge'. Another SENCO felt she did not have enough knowledge to identify ADHD and would 'welcome more training'. An interesting comment from one of the SEN managers was about parents pushing for a diagnosis in order to claim Disability Living Allowance (DLA) 'we've had parents who have taken kids for assessment because if you have a label you get DLA, parents push for that yeah, yeah parents push for a diagnosis of dyslexia, dyspraxia, obesity, all sorts of things to get DLA'. An SEN manager felt that additional training was more necessary in the primary phase and that 'there should be more support for the primary schools'. He went on to comment, 'If you talk to the clinicians ASD is being identified in kids of 3 or 4,

ADHD they can diagnose in early primary – EBD is diagnosed as soon as kids get into a social situation’.

On the issue of staff training an SEN manager felt that although he had sufficient expertise to be able to identify difficulties he commented, ‘as a whole school there needs to be more training because a lot of teachers who come through with subject specialisms don’t have specialist training’.

On the issue of specific training for identifying ADHD, an SEN manager commented, ‘I do think training could be better, I think there’s a lot of questions around ADHD personally and there are huge variations in the kids we work with who have got the label, and sometimes we feel the label is reward for assistance’. He went on to say, ‘a lot of EBD kids have got symptoms of hyperactivity but not necessarily ADHD. We haven’t worked with an ADHD kid who can’t sit and focus for hours – what we have learnt is there is a word they don’t understand and that’s no’.

On the specific question (Q6) of whether the SENCO should be the key person responsible for the initial identification of a medical/learning disorder one of the SENCOs commented ‘only if sufficient training has been given’ and another SENCO suggested that you would rely on ‘the general experience of staff’.

Question 7 Asked, ‘In your experience how effective/efficient do you feel external support services are in providing early identification of complex SEN difficulties such as ADHD?’ An SEN manager commented ‘I find they are quite efficient in making an assessment, whether I agree with their assessment is another matter’. He went on to

comment that an assessment or diagnosis could take between 3-6 months. 'Typically they will get people to do a 'Conners' (Connor's Rating Scale, 1997) and might repeat this later, also most will want to do other checks- then physical, medical, family checks: a process of elimination really'. He went on to say, 'we do Conners' surveys on loads of kids. I will find the most appropriate person in the school to do it who is best informed'.

One of the SENCOs commented that the primary to secondary transfer in their school was very effective in the early identification of difficulties. She also commented on excellent levels of classroom support that helped to reduce difficulties presented in the classroom.

Question 8 Sought opinion on the key difficulties presented by students with ADHD. A learning support manager commented 'If you ask teachers what the worst problem in schools is they will say behaviour management'. He went on to say, 'ADHD kids present behaviour management issues. Problem is that ADHD kids will sit for hours doing something they want to do but won't sit for ten minutes doing something they don't'.

This manager also commented on curriculum issues and considered it a huge issue for a teacher to be able to motivate 30 kids to do one area of study and, 'ADHD kids have to be motivated'. He gave an example: 'if they are not motivated that day to look at the rain cycle nothing is going to motivate them. But they are not going to sit there quietly and let the other kids get on with their work because they are bored and disaffected they tend not to make good learners'. One of the SENCOs commented

that such children get bored easily and lack concentration. Another SENCO stated, 'they have an erratic response to support and guidance and have difficulty relating to different staff in the secondary school setting'. Peer relationships and interaction were also seen as problematic.

Question 9 Asked SENCOs what the key difficulties were for children with emotional and behavioural difficulties in the classroom.

An SEN manager commented, 'we make sure teachers are aware who they are through the SEN register and, another one is to give teachers coping strategies such as, '50 tips for dealing with ADHD in the classroom'. He further commented, 'what I do is circulate stuff that comes in, such as articles and guidance tips and anything that is useful to give to teachers'. On the issue of training he said, 'All NQTs are given an INSET each year and one of the things we cover is ADHD. We talk about strategies and behaviour as a high profile'. A SENCO commented that students with SEBD have, 'difficulties with peer relationships and difficulty perceiving or accepting responsibility for their own actions'. On the specific question of whether ADHD should be under the umbrella term of social emotional and behavioural difficulties, all of the SENCOs said yes.

In Question 10, I asked SEN managers and SENCOs if Children with ADHD/S-EBD should be included in mainstream schools.

The SEN manager said, 'yes providing it is working, it is an individual thing. If it is not working I can't see the point of that kid being there, if that kid is there then it's

damaging other kids'. I asked the manager 'Where would these kids be sent?' The manager said, 'There is a local provision (EBD special school) with 40 statutory places and a waiting list of about 100'. Also, 'kids have to be transported from all over the borough so a lot of kids end up in the PRU'. He went on to say, 'there is one provision for primary, full or part time but they tend to need a statement but don't always have one'. 'There is also a key stage 3 centre for two days a week for a term and they have to be referred by a school'. The SEN manager repeated an earlier statement that, 'The biggest barrier to any kid in school is other kids' behaviour-a lot of kids suffer because they are trying but are in classes with poorly behaved kids who disrupt, which is a growing problem'. One of the other SENCOs said, 'But where do you send them? You have to manage within the resources you've got'.

On the question of undiagnosed or under-diagnosed ADHD being a problem for schools, an SEN manager commented: 'not particularly because we deal with problems as they present themselves, which is why we sometimes dispute the diagnosis - we sometimes dispute kids [being] labelled with ADHD'. An interesting comment from this manager was concerning one of the disorders that often co-exist with the ADHD diagnosis. 'We think there are loads of kids with another label ODD (Oppositional Defiant Disorder), parents are just pushing for ADHD because it is less stigmatising than ODD'. The manager went on to say, 'we have bad days when we are overwhelmed when we question does ADHD exist?' On the issue of medication he said 'we never push [for them] to take medication but we wouldn't necessarily push against it either. We have seen when a kid comes in with Ritalin the other 29 sigh with relief'. He went on to say, 'If kids come in without medication we try to contain them until parents bring in the medication'. Another SENCO commented that, 'Two

thirds of SEN problems are children with emotional and behavioural difficulties, mainly emotional problems'. This school, despite having 500 boys on the SEN register, did not have any boys with a diagnosis of ADHD.

Discussion

All of the schools where these interviews took place had very large SEN departments and large numbers of dedicated staff. One of the schools had an on-site withdrawal unit for children with EBD. All of the schools catered for a wide range of learning disabilities including children on the autistic spectrum, children with mild and moderate learning difficulties, EAL and children with social, emotional and behavioural difficulties. A key finding was the acceptance by SENCOs of the fact that children with or without a diagnosis of ADHD were considered to be under the umbrella term of S-EBD and, apart from those on medication were not treated any differently. This finding is significant and is in line with government guidelines.

According to teachernet (2010:10)

Pupils with a range of difficulties, including emotional disorders such as depression and eating disorders; conduct disorders such as oppositional defiance disorder (ODD); hyperkinetic disorders including attention deficit disorder or attention deficit hyperactivity disorder (ADD/ADHD); and syndromes such as Tourette's should be recorded as BESD if additional or different educational arrangements are being made to support them.

Furthermore one of the learning support managers informed me that in the borough where this survey was conducted ADHD is considered to be a 'high incidence' disorder and 'the borough don't statement for high incidence difficulties'. This would

therefore partly explain why very few pupils considered to have a diagnosis of ADHD did not have a statement of educational need.

It is suggested in this thesis that support for certain special educational needs can be affected by the 'lumping effect' where some children's physical and learning needs are subsumed under 'umbrella' categories such as those with social emotional and behavioural difficulties. This thesis also gives evidence that some disorders are distinctive and therefore may require unique educational intervention and/or medication. Certainly those pupils on the autistic spectrum and those with a diagnosis of ADHD would fall into this category of having unique needs. In the case of ADHD it could be argued that if you look at the DSM or ICD list of symptoms and characteristic behaviours used in classifying ADHD, many of the symptoms can be applied to other learning and behavioural disorders such as S-EBD.

An example of ADHD characteristic behaviours was found in the data obtained from my classroom observations in a girl's school (Appendix 7). One of the pupils was exhibiting several of the characteristic behaviours matching those listed in the DSM/ICD diagnostic manuals (Appendix 11). However, in order for this pupil to be diagnosed as having ADHD, the behaviours would need to be present over several weeks and pervasive across different social situations including school and home. My classroom observation at the girl's school also confirmed findings in the literature on how ADHD type behaviours in girls can be seen as more subtle and can go unnoticed in the classroom. The use of behavioural descriptors has led to a predominance of boys being identified as having ADHD (Hale et al, 2005; Peris and Hinshaw, 2003). Furthermore, during interviews with teachers and support staff at this girls school it

was interesting to note that although staff had an awareness of the behaviours attributed to the ADHD diagnosis they did not see ADHD as a particular problem in the school. There was an admission by staff however that some of the girl's had a diagnosis or were suspected of having ADHD. This further supports the literature and my earlier findings on ADHD type behaviours and characteristics and how girl's with ADHD may not, necessarily, be seen as disruptive. Although lack of attention in the classroom may go unnoticed by the classroom teacher this could still have an impact on the child's learning and progress. After the observation I asked the SENCO if the girl I observed had ever been identified as having ADHD and she informed me that the girl was not normally any problem and did not have the disorder.

However, if you examine the core symptoms of the ADHD diagnosis, that is, inattention, impulsivity and hyperactivity, you will find that these are fairly unique to ADHD and are therefore the basis used by doctors in prescribing medication. In an article from the SENCO Forum David Bowles echoes the findings of this research thesis thus:

From my own experience I find many observers, including teachers and other professionals, fail to differentiate between ADHD, ODD and CD. Instead all of these separate conditions tend to get lumped into the educational category of 'EBD' (Emotional Behavioural Difficulties). This lack of differentiation too often causes a great disservice to those parents of children who have ADHD but not (or less substantially symptoms of) ODD or CD, especially when their children with ADHD unfairly get labelled as having the educational catch-all of EBD. (David Bowles, Educational Support, 2002)

Organisations such as the British Psychological Society (BPS, 2000), claim that around six per cent of children will have a diagnosis of ADHD. However, one of the schools in the survey (an all boys comprehensive) had 500 boys on the SEN register and none of the boys actually had a diagnosis of ADHD. The SENCO did admit that

one boy was 'suspected' by staff of having ADHD. Although the SENCO at this school did not have a breakdown of the data for SEN categories, available I was able to view the SEN register and confirm that there were a significant number of boys classified as having EBDs, with only one boy suspected of having ADHD. A second school in this survey was a large mixed comprehensive with around 400 pupils on the SEN register which had 30 pupils with a diagnosis of ADHD and more than 100 pupils with EBDs. The third school in this survey, an all girls' technology college with 900 pupils on role, had two pupils with a diagnosis of ADHD and two pupils classed as having EBD.

This data indicates a disparity with national estimates of ADHD diagnosis. The data from this survey suggest that if we take the conservative figure from the BPS that 6% of school children will have a diagnosis of ADHD (BPS, 2000) an inference can be drawn to suggest that a number of pupils in these schools could have undiagnosed ADHD. I echo the suggestion made by Norwich et al, 2002, that although 'the full extent of unidentified and unmet needs in relation to these kinds of difficulties (ADHD) cannot be determined by this study...this would still indicate a substantial degree of unidentified difficulties (p.186)'.

One of my research questions set out to examine the involvement of special needs departments and SENCO's in supporting children with ADHD in the classroom. However, my findings suggest that because children with ADHD are being subsumed into the category of EBD unique intervention strategies and support may not be happening in all cases. This would be especially true in cases where children have been diagnosed as having ADHD and for those on the autistic spectrum

Thus it can be concluded that there may be a number of pupils in schools with a complex neurologically - based condition that may or may not require medication in its treatment who are being subsumed under the umbrella category of social, emotional and behavioural difficulties and therefore may not be having their needs met. Furthermore, the core symptoms of ADHD may require unique intervention strategies that are additional to those being offered to children with social, emotional and behavioural difficulties and thus the absence of support may hinder their educational progress and lead to disaffection.

Furthermore, the research findings from these interviews and from the earlier findings in this thesis have a huge implication for additional training both for classroom teachers and managers of SEN provision.

I used this final phase of interviews to cross – check and triangulate the existing data and update my earlier work by providing new information. Although, as a former teacher in schools, I was familiar with the organisational structure of schools and the time constraints that teachers faced, I found a general willingness by SEN managers and SENCOs to participate in my research. Four schools were initially approached but only one of these, despite follow-up phone calls, did not reply or participate.

It was an interesting experience for me as a former SENCO to witness the changes in SEN provision and how schools are coping with inclusion on a much wider scale than even a few years ago. All three of the schools had specialist units or provision within their SEN departments and catered for wide range of complex special needs including pupils with ASD. It was also interesting to note how the status of the SENCO has

changed, particularly in larger schools, and two of the schools used the term director of learning support for the head of department with SENCO teachers as deputies. One of the schools had more than sixty dedicated staff.

In this final phase of interviews I feel much of my earlier work has been validated in respect of highlighting resource issues, such as time and money, and the pressure on SENCOs/managers to deliver a good education within mainstream schools and meet government targets to children with increasingly complex social, physical and educational difficulties.

The models presented in this thesis highlight my research question on the bureaucratic procedures outlined in the Code of Practice (DfES, 2001). Evidence from my interviews with SENCO managers indicates that 'lumping' pupils with complex behavioural difficulties and autistic spectrum disorders into an overarching category such as EBD can hinder effective diagnosis and identification of need. Furthermore, the knock-on effect of government and local authority policy on supporting children with complex behaviour difficulties may be lacking. My research gives evidence that SENCO's reported a lack of funding leading to a reduction in essential services especially educational psychology services.

A further research question seeks to examine the establishment of ADHD as a neurobiological disorder that may require medication in its treatment. Evidence from the literature and my own research with doctors and educational professionals give evidence that support this view. Thus this further supports the argument that ADHD is

a distinct condition that requires unique and multi-model support in the classroom (Cooper, 2000; 2008)

It could be argued that, as the interviewer, I influenced the process of the interviews and that respondents' answers were therefore influenced by interviewer bias. The thesis has previously discussed the question of bias involved in the process, to some extent, there was an unavoidable bias involved in the process, in view of my own professional background as a SENCO, and this is acknowledged. However, bias was deliberately minimised, as interviews were carefully carried out in a semi-structured format that enabled respondents to say whatever they wanted. They were entirely free to raise any issues of their choice.

Through the process of transcribing one of the interviews, writing up notes from the other two interviews, and coding the replies, it became clear that classroom support for SEN pupils and training for staff were key issues. The code 'learning support' had a very high frequency count in the interview (9), while 'training' was mentioned four times and 'behaviour management' was mentioned ten times. This indicated that specific issues surrounding pupils with ADHD/EBD were the efficiency of identification/diagnosis, by teachers and external support agencies, behaviour management in the classroom and SEN provision/funding. I crosschecked these findings against publicly available data in the national SENCO Forum, triangulating both sets of data against my original interviews, questionnaires and observation, to ensure that emerging themes were consistent.

It can also be argued that due to the government's policy of including pupils with Autistic Spectrum Disorders and ADHD under the umbrella term for pupils with Social, Emotional and Behavioural Difficulties that some pupils will not be identified as having a medical/neurological condition in the early stages and therefore may not be receiving the levels of support required to meet their unique needs.

Summary of Chapter 4

This chapter explores my findings and analysis on the identification and diagnosis of ADHD and related conditions that can impact on learning. The research reported in it examined the differentiation between normal disruptive behaviours and conditions affected by neurology. The neurological basis of ADHD and its establishment as a disorder and special educational need is explored in detail. This research found that doctors and psychiatrists clearly view problems with the neurology of the brain of sufferers and the use of medication along with psychosocial interventions as treatment. The structures of the DfES Code of Practice as used by teachers are examined and reported on as well as how schools might support those with ADHD. Data were obtained through questionnaires and interviews with medical professionals and teachers and by observations of pupil classroom behaviour. This research indicates that teachers are accepting of the medical and neurological causes of ADHD symptoms, but still view curriculum and learning environment as the best method of support. Classroom support staff, on the other hand, view the use of drugs as an essential intervention in supporting concentration, behaviour and learning. ADHD/EBD and related behavioural disorders remain problematic for teachers and schools. The use of drugs in the treatment of ADHD also remains controversial. This chapter suggests that through the early identification of difficulties and more targeted support by teachers it would be possible to prevent further rises in exclusion rates. Classroom observations suggested that the lack of knowledge by teaching staff could lead to mis-identification of ADHD symptoms and characteristic behaviours. Conversely, the observations indicated that ADHD related behaviours, particularly the more subtle and less disruptive behaviours exhibited by girls, could be missed by teachers leading to unidentified needs. The rejection of 'within-child' factors of SEN by subsequent government policies since the Warnock Report has subsumed children with complex needs into an overarching category of SEN support and included them into mainstream schools. This has led to a bureaucratic and time-consuming system where some children with social, emotional and behavioural needs are either unidentified or not receiving appropriate support. The chapter presented and discussed four figures to illustrate this process, proposing an enhancement to the system at both an overview level and in detail in the classroom. Overall, the findings from this thesis identified the ways in which a lack of knowledge and training of teachers and special educational needs coordinators has led to an over reliance on external support services. As a result of this, increasing numbers of children are becoming disaffected through lack of support and becoming excluded. The system is thus failing them. In my final phase of research I interviewed SENCOs and learning support managers in three large inner-city comprehensive schools. The SENCOs and managers further

highlighted issues of experience and training in identifying ADHD in the classroom. Only one of the managers expressed confidence in being able to identify symptoms of ADHD in the classroom and stated that, 'I feel I and colleagues have sufficient knowledge and experience to refer kids for consideration (assessment) we will often say that a kid is or isn't...[ADHD]' (Appendix 12). However, there was still a need to refer 'suspected' children to external support services for assessment. This meant that children with or without a diagnosis were being supported within the category of S-EBD. It is argued in this thesis that children with ADHD have unique learning and/or medical needs, which are fundamentally different from those with behavioural disorders such as those of conduct and oppositional defiance. Furthermore, I found through my research that children with autistic spectrum disorders were also sometimes subsumed into the category of S-EBD and this, it can be argued, is also unacceptable.

Chapter 5: Conclusions and Recommendations

The findings of this study are that the abandonment of the medical model to describe certain forms of SEN and the adoption of the generic term of special educational needs to describe young people with physical, mental, behavioural and learning difficulties has inadvertently created a new form of exclusion that has challenged the government's attempts to raise achievement and have a fully inclusive education system in schools. It is also my view, arising from the evidence examined, that the inclusion of young people with emotional and behavioural difficulties including those with ADHD, conduct and oppositional disorders has led to this group being increasingly excluded because they are not receiving appropriate support in the classroom for their social and educational needs.

In this research and from my own professional experience, I have found that current government policy is committed to a policy of including children with disabilities and special educational needs into mainstream schools including those with complex problems. This has placed a particular onus on schools and teachers to identify a special need and give effective support in order to enable these students to benefit from the full range of educational provision. I have found from the evidence examined that the key to effective educational intervention and support is in the early identification of a child's special needs, thus enabling the child to be able to fully access the curriculum and make progress alongside their peers. However, when teachers are confronted with learning difficulties or behaviours associated with complex neurological disorders, they often see these disorders as being outside of their expertise and therefore are faced with an obligation to set in motion a lengthy

process leading to a 'diagnosis' and possibly medication for treatment. Teachers are not to blame for this problem, because as educationalists they are concerned with the general learning needs of students and the child's social and moral development. Therefore, when a child is not responding to normal differentiated teaching and other additional support strategies, teachers have to draw on the expertise of other professionals such as doctors and educational psychologists to support them with a solution for the problem. Teachers, as professionals, who are also sometimes parents, tend to have a good overview of children's social and educational needs, but they are not medical experts or psychiatrists. They, as teachers, do not have the knowledge or expertise necessary to identify the many neurologically based disorders that medical and neuroscience research has been able to identify in recent years. General Practitioners have also found it difficult to keep pace with the changes and do not always have sufficient expertise to diagnose these conditions. They therefore often have to refer children suspected of having one of these disorders to specialists such as psychiatrists and paediatricians for assessment and diagnosis. As well as the often-complex medical diagnosis of ADHD and other related disorders, psychosocial factors that can predispose or exacerbate the disorder also have to be considered. Again a problem arises for the classroom teacher and for schools generally due to lack of funding for external support services. Generally Local Education Authorities (LEA/Children's Services) have very limited funds for the 'second line' yet essential services that schools use such as speech therapy, hearing specialists, psychological and behaviour services and therefore external support is difficult to access, not available or simply too expensive. It is not surprising therefore that, from my own experience, working as a school SENCO and head of SEN, the assessment of, for example, a child suspected of having dyslexia can take several months from the initial

concern by the classroom teacher and/or parents to a full assessment and diagnosis. In the case of a statutory assessment or statement of SEN as defined by the Code of Practice (DfES, 2001), this process can take up to two years from the initial concern to the issuing of a 'statement'. In the meantime, the classroom teacher is to a certain point working blindly because specific disorders that can affect social and learning outcomes often require specific and specialist support strategies, often involving additional staff and input from specialists. A consequence of this lack of support is that a child with a specific learning difficulty such as dyslexia or an autistic spectrum disorder or some of the less challenging symptoms of ADHD may not be receiving appropriate support and thus this situation may lead to further problems for the student. Lack of appropriate support can have far-reaching psychological consequences for the child and could lead to further social isolation, increased learning difficulties, low self-esteem and disaffection.

It is unacceptable that subsequent government legislation and the move towards including all children with special educational needs into mainstream schools have created special problems for the classroom teacher. Most teachers are committed to the ideals of inclusion but lack of funding and subsequent cutbacks in school services have created a significant void in supporting vulnerable students. The abandonment of the medical model since the 1978 Warnock Report and the categories of disability has to a certain point helped to de-stigmatise a child's special needs but in doing so has led to a perception that special educational needs is a blanket term that can have blanket solutions and this is simply not so.

This research found that advances in neurological research have led to the identification of a wide range of disorders that affect learning and behaviour. The research has also taken into account the evidence from prior research that considered subtle brain anomalies and patterns that are not easy to identify can have a significant effect on a child's ability to learn (Rucklidge and Tannock 2002).

During the research process, I investigated the 'case' of the phenomenon of BESD/ADHD, using a case study approach with an interpretive dimension to enable me to enter the working world of doctors, medical professionals, teachers, classroom support assistants and children to extend my knowledge of this complex childhood phenomenon and to examine the systems in place in schools and support services to identify the above SEN and related disorders that affect learning.

My analysis of the role of teachers and school special needs coordinators was explored in the context of government policy on inclusion practices. I examined the role of professionals from medicine and education in LEA support services through questionnaires, interviews, a literature review, policy analysis and reflective analysis deriving from my own professional experiences. Three classroom observations were also conducted at a London comprehensive school. Analysis of the resulting data led to my proposals for the enhancement for BSED/ADHD identification and a range of recommendations that are outlined below.

In my view it is important that teachers do not just acknowledge the existence of ADHD but recognise that the symptoms and characteristic behaviours associated with the disorder can affect the ability to learn in many different ways and therefore the

support offered will also need to be variable in order to be effective. Teachers therefore need to develop a greater understanding of the special educational and medical needs of these young people if they are to develop effective support strategies in the classroom. Teachers need to adopt multi-modal approaches tailored to meet the needs of individuals. These necessarily include medical, psychological and educational support. In theory, multi-modal support is available through various agencies such as CAMHS but complicated and lengthy referral systems and lack of funding for these essential services means in many cases it is too little too late. Until a child's medical, psychological or educational need is properly identified and supported by teachers, the child will continue to flounder, will become increasingly disaffected and may become excluded from the education system or simply give up. It may be necessary for teachers and government to revert back to the ideological thinking of a 'medical-model' to describe certain disorders, especially those with neurological underpinnings such as ADHD. Based on the findings of this study a reversion to a medical model to describe certain neurological based disorders will help teachers to develop a greater understanding of the various bio-psycho-social disorders that can affect children and therefore will help them to develop effective support and inclusion in the classroom. The following recommendations have emerged from the findings of this study. These may act as a useful starting point for future research on this topic and inclusion practices generally.

Recommendations

Recommendation 1: Teachers, particularly special needs coordinators as ‘experts’, need to develop a far greater understanding of complex neurological conditions such as ADHD, Autism and Dyslexia if they are to meet the unique and individual needs of these groups of young people. Further training is required to develop effective programmes and support to prevent disaffection that may lead to further learning difficulties, conduct problems and possible exclusion.

Recommendation 2: The role of the SENCO as ‘expert’ needs to be enhanced through more specific training because the current situation regarding training is haphazard. There also needs to be additional funding for training and reduced teaching commitment in order to carry out more detailed assessment. By increasing the expertise of the SENCO, there should be less reliance for them to call on external support services and thus, the system and need for referral should be reduced. In turn, this will save time and resources and help to assist teachers and other professionals working in schools to identify problems early and provide appropriate intervention and support for pupils.

Recommendation 3: Teachers and government need to acknowledge that in order to effectively to meet the requirements of the Code of Practice with regard to ‘early identification’, ‘effective provision’ and that the ‘child’s needs will be met’, procedures for referral and assessment need to be streamlined to become simpler and far less bureaucratic.

Recommendation 4: Additional funding needs to be put into place to reduce the caseload of some external specialists such as educational psychologists and to increase their number. This will help to prevent the situation where specialists are being required to train teachers and classroom assistants in speech therapy, behaviour management and other skills and strategies because they are unable to cover the number of schools and individual pupils requiring support.

Recommendation 5: Teachers and government need to acknowledge that neurological disorders require special intervention and support. A return to the ‘medical’ and ‘within-child’ model of special educational need is required that acknowledges these complex difficulties and requires teachers and support workers to go beyond curriculum and environmental solutions in meeting those needs.

Recommendation 6: Teachers need to develop a greater understanding of the characteristics of conditions such as ADHD and learn to differentiate between environmental causes of learning and behaviour difficulties and ‘within-child’ neurological problems that can affect learning and behaviour. Teachers and support workers need to develop an understanding of the disorders that co-exist with syndromes such as ADHD so that they can differentiate between ‘normal’ learning and behaviour difficulties and those difficulties caused by a distinctive or co-existing disorder.

Recommendation 7: Government needs to increase funding to resource specialist training in neurobiological disorders in order that teachers can acquire knowledge and training beyond that of the textbook. Increased funding will also help address the

shortages in essential support services such as speech therapy, psychological and behaviour support to families and sufferers.

Implications for professional practice

Attention Deficit Hyperactivity Disorder is a complex neurological disorder that crosses the boundaries of biological, educational and neuro-scientific research. As a consequence, the disorder has become an intensively studied syndrome in child psychiatry. Advances in medical research combined with advanced computer aided scanning equipment have led to a greater knowledge and understanding of how subtle brain anomalies can affect learning and behaviour. Teachers, government and other professionals need to acknowledge and understand these research developments and apply their findings to policy and practice in the classroom so that effective support for those with neurological conditions can take place. The implications of the findings of this study are that government needs to increase funding for the further training of key staff such as SEN coordinators and others to enable effective support in the classroom and, therefore, meet the special, social and educational needs of children and young people with complex needs and, particularly those who are included in mainstream schools.

Suggestions for further research

The enhancement of the role of the SENCO is the key to streamlining the current complex system of identification and referral of SEN. From my own professional experience as a SENCO it is my view that the training requirements of special needs

coordinators should be sought to establish what is required to enable them to offer more effective support in the classroom. The government needs to acknowledge that the identification of training by SENCOs is recommended as a result of findings from professional practice and therefore a priority of resources needs to be put in place to meet their training needs.

Original Contribution to Knowledge

This research thesis has identified a weakness in the UK education system of supporting certain types of special educational needs in the classroom, as a result of the long-term effect of government policy. Recommendations to alleviate this ‘vicious cycle’ were made, based on original data collected in a number of London-based schools and an analysis of expert contributions in the national SENCO Forum. The research found that teachers and classroom assistants, as educationalists, did not have sufficient knowledge and expertise to be able to identify, in the early stages, possible neurological deficits/conditions such as those associated with ADHD. These difficulties that remain unidentified can lead to a range of learning and social problems in the classroom and in the wider community. This failure to identify difficulties at an early stage and before resorting to lengthy and bureaucratic assessment procedures by external specialists can create a vicious circle of inadequate support that may lead to disaffection and exclusion.

From an analysis of the complex nature of the ‘case’ of ADHD, this thesis contributes to knowledge by identifying and investigating a ‘vicious circle’ in which neurologically based disorders such as ADHD are not being identified in the early stages as required by the DfES Code of Practice (2001). The SENCO, in many cases,

as the key person in this early identification and support, either lacks the expertise or has insufficient time and resources to assess pupil needs and provide effective support. As a result of this, too much reliance is placed on external support services and medical specialists, which are often understaffed and stretched in resources. This extends the process and time it takes for identification, assessment of need and support for these groups. In too many cases, this leads to exclusionary practice by placing pupils in units such as PRUs, withdrawing them from lessons and/or exclusion, thus failing them.

This research thesis proposes an enhancement to the current over-complicated and bureaucratic system of inclusion. An enhanced system for identification and support would reinforce the governments' ideals on inclusion and inclusive practice and put the emphasis on early intervention and appropriate support for children with complex problems. Data and analysis from the initial phase of interviews and questionnaires were triangulated against the final phase interviews and expert opinions from professionals in the SENCO Forum to reveal that, within the complex narrative of the 'case' of ADHD, the special educational needs coordinator is the best placed person to initiate an enhanced system of support. The research therefore proposes that SENCOs should be given the appropriate resources and training to carry out their role effectively.

Limitations of the study

I was not able to do long-term observations or group study for logistical reasons.

Observations were done to show mis-identification in the classroom. Future research

recommendations would include a group research project and a longer-term investigation of what happens to particular pupils demonstrating these behaviours. There is perhaps an unavoidable bias arising sometimes in qualitative research in real life situations when the researcher has professional knowledge about the subject under investigation. This needs to be acknowledged as a limitation, but it also carries with it benefits as regards an in-depth understanding of context as a result of my role as a professional practitioner researcher in the field. This has been acknowledged and highlighted elsewhere in this thesis.

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Websites

Forum: <http://lists.becta.org.uk/mailman/listinfo/senco-forum>

Archive: <http://lists.becta.org.uk/pipermail/senco-forum/>

Appendix: 1

Questionnaire (Attention Deficit Hyperactivity Disorder)

Please answer the following questions.

- [1] ADHD: is caused by faulty neurotransmitter functioning? Agree [] Disagree []
- [2] ADHD: is caused by genetic inheritance? Agree [] Disagree []
- [3] ADHD: is caused by environmental factors? Agree [] Disagree []
- [4] ADHD: is caused by inadequate parenting? Agree [] Disagree []
- [5] ADHD: is caused by psychological factors? Agree [] Disagree []
- [6] ADHD: is caused by (your opinion)?
- [7] ADHD: is treated by behaviour management? Agree [] Disagree []
- [8] ADHD: is treated by environmental changes? Agree [] Disagree []
- [9] ADHD: is treated by better parenting? Agree [] Disagree []
- [10] ADHD: is treated by drugs? Agree [] Disagree []
- [11] ADHD: is treated by (your opinion)
- [12] ADHD: is a biological/medical condition and should only be treated with drugs when a doctor has fully diagnosed the existence of a neurological disorder. Agree [] Disagree []

Thank you for completing this questionnaire please return by the 30 January 2003 in the envelope provided. (RD070103)

Appendix: 2

Dear colleague,

As part of my course in educational research at the University of Greenwich I am carrying out a preliminary investigation into the apparent rise in the prevalence of Attention Deficit Hyperactive Disorder (ADHD). I would be very grateful if you could complete this questionnaire and return it in the envelope provided.

Professional Status. Please tick.

Doctor (medical) [] Medical practitioner [] Psychiatrist [] |
Psychologist [] Teacher [] Health Professional []
Administrator []

Main place of work. Please tick.

Centre [] School [] Clinic/Hospital []

1. There has been an increase in the prevalence of ADHD in recent years.

Agree [] Disagree []

2. Do you consider any apparent increase in ADHD is due to the following:

Methods of Diagnosis []
Increased awareness []
New definition of the disability []
Labelling by Teachers []
Labelling by Parents []

3. Any other apparent cause of prevalence of ADHD.

Appendix: 3

Results of questionnaire survey conducted at the CAMHS and CDC centre on the causes and treatment of Attention Deficit Hyperactivity Disorder

| Question | No. Answered | Agree | Disagree | Total |
|---|--------------|-----------|----------|-------|
| 1. ADHD is caused by faulty neurotransmitter functioning | 8 | 8 | 0 | 8 |
| 2. ADHD is genetically inherited | 8 | 8 | 0 | 8 |
| 3. ADHD is caused by environmental factors | 7 | 5 | 2 | 7 |
| 4. ADHD is caused by inadequate parenting | 7 | 1 | 6 | 7 |
| 5. ADHD is caused by psychological factors | 7 | 2 | 5 | 7 |
| 6. ADHD is caused by (your opinion) | 2 | See below | | 2 |
| 7. ADHD is treated by behaviour management | 7 | 7 | 0 | 7 |
| 8. ADHD is treated by environmental changes | 8 | 8 | 0 | 8 |
| 9. ADHD is treated by better parenting | 8 | 4 | 4 | 8 |
| 10. ADHD is treated by drugs | 8 | 8 | 0 | 8 |
| 11. ADHD is treated by (your opinion) | 4 | See below | | 4 |
| 12. ADHD is a biological condition and should only be treated with drugs when a doctor fully diagnosed the existence of a neurological disorder | 8 | 6 | 2 | 8 |

Written replies to question [6] causes

1. An inherited condition in which there is a metabolic disturbance in the frontal lobes of the brain.
2. As 3-5 (environment, parenting, psychological) causes may produce similar symptoms but not ADHD.

Written replies to question [I 1] treatment

1. A combination of the above depending on the child and circumstances and the resources available.
2. A combination of any or all the above as appropriate.
3. Combination of behaviour management strategies and drug therapy.
4. Combined therapy drugs, environmental etc.

Appendix: 4

Results of questionnaire survey conducted at the CAMHS centre on the cause of increased prevalence of Attention Deficit Hyperactivity Disorder

| Professional status | Agreed an increased prevalence of ADHD | Methods of diagnosis | Increased awareness | New definitions | Labelling by teachers | Labelling by parents | Other causes |
|---------------------|--|----------------------|---------------------|-----------------|-----------------------|----------------------|--------------|
| Health professional | Yes | Yes | Yes | Yes | Yes | Yes | - |
| Psychiatrist | Yes | Yes | Yes | - | - | - | - |
| Nurse | Yes | Yes | Yes | - | Yes | Yes | - |
| Psychiatrist | Yes | Yes | Yes | Yes | Yes | Yes | - |
| Psychiatrist | No | Yes | Yes | Yes | Yes | Yes | See below |

Written reply to question [3] other causes of prevalence

1. Cultural factors.
2. Relationship breakdown
3. Preference of biological fathers at home
4. Expectations of male children to achieve academically and to stay at school
5. Social cohesion
6. Identification with teachers etc.

Appendix: 5

INTERVIEW SCHEDULE

PURPOSE: the purpose of this interview is to seek further clarification on the general view that the prevalence of ADHD is increasing and to find possible answers to the causes of the increase. From my own research there appears to be three key areas that is affecting the rise in ADHD [a] Diagnostic. [b] Medical. [c] Social.

Question 1 (Diagnostic)

In which way do you consider the changes/improvements in the diagnosis of ADHD has had an impact on an increase in the prevalence of the disorder?

Question 2 (Medical)

How far do you consider the medical profession in particular family doctors (GP's) have played a part in the increased prevalence of ADHD by the prescribing of stimulant medication to control hyperactivity in children.

Question 3 (Social)

What are your views that the prescribing of stimulant medication such as Ritalin (methylphenidate) is being used as a means of 'social control' in children?

Thank you,

Appendix: 6

Observations/Interviews

The purpose of the observations/interviews was to discover the following:

Interviews

1. What knowledge did staff have about AD/HD i.e. Characteristic behaviours or other problems as presented
2. What were their perceptions of the disorder
3. Have they had any personal experiences of students with the disorder
4. Did they consider AD/HD to be a problem in their school/classroom

Observations

1. Was there any evidence of students displaying AD/HD characteristics i.e. Inattention Impulsivity Hyperactivity or other related disorder i.e. conduct
2. Was there any relationship between the subject being taught and behaviour
3. Was there any relationship between the interaction of the teacher and student that could contribute towards negative

Appendix: 7

Observation Notes. English Lesson, 30 Students.

The lesson was calm and settled. Students were quiet and listening to the teacher. Students were putting up their hands to ask questions. However, one particular student stood out from the rest and formed the basis of this observation.

0-5 minutes

Lack of attention and off-task.

Fiddling with pictures and talking to another student.

5-10 minutes

Teacher spoke to student who was playing with her diary. Student was off-task and distracting partner.

10-15 minutes

Started task but continued talking and distracting others. Continuous chatting and off-task.

15-20 minutes Teacher

talks to group.

Student X was not listening or attending to task.

20-25 minutes

Group feedback session.

Student X not listening and copying friends work.

25-30 minutes

X talking and off-task, minimal work completed.

Bell sounds-quick to react but not first out of classroom.

Summary

I pointed out my observations of this student to the head of SEN. This student was not known as a particular problem in lessons. Although this student showed some characteristic behaviours of AD/HD such as inattention and lack of concentration, this would not be sufficient to suspect AD/HD. The student would have to be observed in several situations and over a period of time to make any firm conclusions.

Appendix: 8

Classroom Support Worker - Taped Interview

What are your views on AD/HD?

I have conflicting views

Conflicting views

In as much as I know it exists

Right

But I don't think he has it I believe he's got a bad attitude he does what he pleases, there's lots of mind games going on its just in his head

You know it exists what do you know about AD/HD then?

Mm that it gives them a lack of impulse control and that they are very busy children that need to know lots of different things at once. It's almost that they are constantly hungry but its for attention and verbal answers as opposed to look at me, you know.

Hungry for attention yeah?

What about your experiences here?

No because I work, support an Autistic girl

Right O.K

And as far as I know there's one who could possibly, maybe but I don't have any trouble with her attitude but I know other staff do. You see were different to teachers the girls see us as an in between the teachers and them.

How much do you know about the relationship AD/HD has to other disorders such as autism?

Again I don't know very much I've only just skimmed the surface.

You don 't think... do you know about the relationship?

Not very much really.

Have you had any personal experiences of it here?

No, but I had my son tested

Did you?

It turned out that he had a difficult temperament.

Right.

Because he couldn't control himself he was being naughty, very naughty.

Right.

Maybe his father has been able to reign that in because obviously living with him he had strategies that's been able to change him and deal with his difficult temperament.

So did you suspect your son of having AD/HD?

Only because there was this query over my step-dad and when I mentioned it I said is there a genetic link, yeah possibly.

Right.

Now I know that there is possibly a genetic link...I know that girls can have it but its rare.

It 's about four to one actually, four boys to one girl.

Yeah.

That's just a ball park figure, but yes it is more evident in boys than in girls.

So what do you see as the main characteristics of AD/HD?

The lack of attention and the disruption that comes with that.

Disruption

Yeah, because they get bored very quickly and therefore, disrupt everybody else because they are bored. And the lack of impulse control and that can sometimes just be verbal, something just comes into their head and they just say it.

They just act on the spur of the moment

Yeah

They don 't think about what they are doing.

What about medication?

I know about Ritalin, I researched Ritalin with my stepson I wouldn't put a child of mine on it just because of the side affects.

They haven 't identified any long-term side affects yet but obviously its on going research.

I've read it can make a difference in later life. I know that my stepson was very dependant on it, needed that pill to be good. Would an Aspirin do the same?

No

To him, as I said to you before, I don't think he had AD/HD but to him as long as he had his medicine...

Obviously the research on Ritalin is on going but, and I don 't know all about it because it is very medical. It has been around for a long time but not in widespread use.

So do adults with AD/HD take Ritalin?

As far as I know Ritalin doesn't have the same affect on adults as in children.

Again there is on going research about whether AD/HD continues into adulthood and in some cases, a very few cases, it does.

So that doesn't seem to be determined by sex?

I touched on it last week about the genetics and was told that once you've got it stays with you until you're an adult.

Well it depends.

Is it that once you're an adult you've got strategies to deal with it?

Yeah, partly because there are several factors it is a developmental disorder that is not necessarily noticed under about seven years of age. From seven to teens the characteristic behaviours are more noticeable. As you go into adulthood a lot of the characteristic behaviours disappear. Not all behaviours are caused by genetic/biological causes. Some are caused by environment; some are caused by other related disorders. This is why AD/HD is so controversial. You can display characteristic behaviours but they may not be AD/HD. They could be a result of biology, school environment, parenting and other disorders like Autism. In about 70% of AD/HD cases there is a relationship with other disorders.

His is a temper syndrome.

Has he had any official diagnosis of AD/HD?

Apparently. He went to an educational psychologist but she didn't have time to finish it. But he attends a mainstream school.

As most do.

And he manages very well but he usually gets into trouble a lot with the police and uses it (diagnosis) as a get out of jail free card.

In the case your talking about its mainly disruption and aggression? But sometimes AD/HD can be simply inattention, the child can be absolutely quiet and sitting at the back of the classroom not causing any problems and still have AD/HD, Because it manifests itself in different ways. It's usually when disruption and aggression are shown that you notice it. I have just observed a girl who wasn't causing disruption but wasn 't concentrating at all. You would need to observe that girl in different situations to make any formal diagnosis. It could have been the lesson, subject, teacher or just a bad day. I'm not qualified to give a diagnosis you would need a psychologist/psychiatrist and paediatrician to do that. But just looking at the characteristic behaviours in the classroom I would say that the girl has got a problem

with attention and concentration but that doesn 't mean she's got AD/HD but she has got some of the characteristic behaviours.

But would that not be true to say that a lot of people have got some characteristic behaviours?

You could say that.

I can't concentrate.

You hear that a lot with Autism, people say a person has got Autistic tendencies. That 's the same with AD/HD you've got levels of behaviour and that 's what makes it so difficult. Just because someone has got certain characteristics you can 't say that child has got Autism or AD/HD. You would have to observe in different situations and over time to make a diagnosis.

It was like that with my son the things that the school thought were really important I didn't and vice versa. I had strategies at home to deal with that. I've only got one at home and they have got thirty so that is where the conflict lays. *What they do at school is they have a behaviour checklist and sometimes at home they use a parent/child checklist and then compare the behaviours at home and at school. Diagnosis is never made on one observation. I couldn't judge that particular student on one observation because she may have been totally bored with that lesson or with that teacher or totally bored with what she was doing in that lesson. I would have to observe that girl in several situations to be able to make any judgement. With AD/HD there are several characteristics that have to be observed over several months and in different situations.*

It wasn't extreme enough.

No, it 's not an exact science you have a list of characteristics that are observed over time and your saying this child is displaying several of these characteristics at school but only two or three at home and that 's why you have to observe over a period of time in order to establish a pattern and because it might just be the situation. Why does a child misbehave in a maths lesson but can sit for hours on a computer.

So why does seem to have increased?

Because of better identification, people have developed there understanding and have such a knowledge of it... the better knowledge you have of something the more likely you will recognise and understand it.

When I was at school I don't remember anybody having AD/HD.

They probably did but there wasn't as many people around to recognise the characteristics and diagnose it. The knowledge has increased over the years and people have a lot more knowledge. It's like Autism a lot of people were undiagnosed they had these strange behaviours and people didn 't understand they just thought that 's a bit odd but didn 't understand why. Obviously due to research people do now understand what Autism is and how people behave. Its like if you went on a course on lets say Autism you would have a much better understanding. If you then met a child with Autism you would have a much better understanding on why and how they learn and process information and how this affects the child's learning. Also your behaviour would change towards the child.

Appendix: 9

Interview 3 (Nurse Specialist ADHD)

Question 1 (Diagnostic)

Ok. Thank you erm...question one is err...on the diagnosis of ADHD.

In which way do you consider the changes/improvements in the diagnosis of ADHD has had an impact on any increase in the prevalence of the disorder?

Well, In my experience undoubtedly there is a large increase in diagnosis that as I'm not aware of erm... how the erm... diagnosis is made I, I can 't really comment on that sadly aware of the increase.

You agree there has been an increase in ADHD. *Most definitely yeah, my experience would be in schoolwork its erm... increasing largely in the last five to seven years. Mm... your not sure about the diagnosis made for this. I've had no erm... involvement no.* Ok thanks, thanks very much.

Question 2 (Medical)

Erm...question two then on the medical side err... obviously this is more your erm... your expertise erm... how far do you consider the medical profession erm... in particular doctors/clinicians have played a part in the increased prevalence of ADHD by the prescribing of stimulant medication such as Ritalin for example to control hyperactivity. *Well obviously it has been prescribed more because that's in line with the increased erm...diagnosis really erm... but it may that parents are looking for erm... the diagnosis and perhaps erm... pressure GP 's in, into seeing them.* Yeah... that's err... yeah that's what I've found as well erm... so you think that parents are looking for their children to be diagnosed ADHD as a means of social control that

would go some, to, to... *as, as an explanation for their child's... as an explanation...behaviour. Yeah thank you.*

Question 3 (Social)

So that really leads on to the err...third question that is the err... social side. What are your views that the prescribing of stimulant medication such as Ritalin erm... is being used as a means of 'social control' in children? *What in terms what do you mean exactly by social control in controlling their behaviour?* Yeah in controlling their behaviour not, not just by parents but perhaps erm...by other professionals such as teachers and, and clinics err... such as this err... but mainly by parents erm...they, they want their children to be prescribed erm... Ritalin to, to control their behaviour. Mm... erm...as a means of social control. Mm... and... *I think within my school its been switched from something like a complaint to largely, because I've only been here for three days but erm... certainly children who've been diagnosed with ADHD have been started on Ritalin locally erm... the, the teachers classroom assistants and parents have been amazed by the enormous change in them. Mm...obviously the improvement in behaviour but also the improvement in their work and concentration and what they're able to actually achieve anc, and that is undoubtedly marked in, in certain children who have that diagnosis erm... I don 't know really what else to add to that.*

In schools? *With, within schools the, the management of behaviour is a large, large issue and problem for the school erm... and ultimately if their behaviour is improved mm... then so will be their, their schoolwork* Their schoolwork yeah, improved by the control of their behaviour through Ritalin. But what do you think about parents? Do you think parents use Ritalin as a form of social control? *Sometimes I've found*

with erm... boys who have been diagnosed with ADHD and maybe a nightmare at home then parents will complain bitterly about their behaviour and but within school their behaviours quite fine no, no problem at school behaviour.

So there's not a clear link between their behaviour at home and their behaviour at school?

You think there's a...*not, not always. Not always. Not always no. That's interesting! But, but I think you know quite understandably parents would, would be looking for erm...*

mm...that, that sort of behavioural control. So, do you think, do you think that erm...that

erm...children's behaviour is selective then that they, they choose where to behave well and

where to behave badly? In my experience with boys who have been diagnosed ADHD

some can be selective. Thank you.

Appendix: 10

Interview Schedule

My research is in the identification and diagnosis of ADHD and its establishment as a distinct neurologically based disorder.

[1] How do you see your role in the identification and diagnosis of ADHD?

[2] What are your views on the identity of ADHD i.e. biological, psychological or socially derived through upbringing or environment, or a combination of these three paradigms?

[3] What are your views on ADHD as a developmental disorder that children will grow out of over time or as their brain matures and becomes fully developed?

[4] What is your opinion on the administering of psycho-stimulant drugs to treat a disorder that may or may not be caused by neurological dysfunction?

[5] The underlying theory on ADHD is that faulty brain cells (neurotransmitters) cause lack of inhibitory control leading to impulsive behaviour. What are your views on this?

Thank you.

Appendix: 11

Appendix

American Psychiatric Association DSM 1 V Criteria for ADHD (extract)

A.1. Inattention: At least six of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level.

- a. Often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities.
- b. Often has difficulty sustaining attention in tasks or play activities.
- c. Often does not seem to listen to what is being said to him or her.
- d. Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behaviour or failure to understand instructions).
- e. Often has difficulty organising tasks and activities.
- f. Often avoids or expresses reluctance about, or has difficulties in engaging in tasks that require sustained mental effort (such as schoolwork or homework).
- g. Often loses things necessary for tasks or activities (e.g., school assignments, pencils, books, tools or toys).
- h. Is often easily distracted by extraneous stimuli.

A.2. Hyperactivity-Impulsivity: At least five of the following symptoms of hyperactivity-impulsivity have persisted for at least 5 months to a degree that is maladaptive and inconsistent with developmental level:

Hyperactivity

- a. Often fidgets with hands or feet or squirms in seat.
- b. Leaves seat in classroom or in other situations in which remaining seated is expected.
- c. Often runs about or climbs excessively in situations where it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness).
- d. Often has difficulty playing or engaging in leisure activities quietly.
- e. Is always 'on the go' and acts as if driven by a motor
- f. Often talks excessively.

Impulsivity

- g. Often blurts out answers to questions before they have been completed.
 - h. Often has difficulty waiting in lines or waiting in games or group situations.
- B. Some symptoms that cause impairment were present before age 7.
- C. Some symptoms that cause impairment must be present in two or more settings (e.g., at school, work, and at home)
- D. There must be clear evidence of clinically significant impairment in social, academic or occupational functioning.
- E. Does not occur exclusively during the course of a Pervasive Developmental Disorder, Schizophrenia or other Psychotic Disorder, or a Personality Disorder.

From *The Diagnostic and Statistical Manual of Mental Disorders* (DSM IV) (1993). Washington DC, American Psychiatric Association.

World Health Organisation ICD 10 Criteria for Hyperkinetic Syndrome
(extract)

- A. Demonstrate abnormality of attention and activity at *home*, for the age and developmental level of the child, as evidenced by at least three of the following attention problems.
1. Short duration to spontaneous activities.
 2. Often leaving play activities unfinished.
 3. Overfrequent changes between activities.
 4. Undue lack of persistence at tasks set by adults.
 5. Unduly high distractibility during study, (e.g., homework or reading assignment); and by at least two of the following.
 6. Continuous motor restlessness (running, jumping, etc).
 7. Markedly excessive fidgeting or wriggling during spontaneous activities.
 8. Markedly excessive activity in situations expecting relative stillness (e.g., mealtimes, travel, visiting, church).
 9. Difficulty in remaining seated when required.
- B. Demonstrate abnormality of attention and activity at *school* or *nursery* (if applicable), for the age and development level of the child, as evidenced by at least two of the following attention problems.
1. Undue lack of persistence at tasks.
 2. Unduly high distractibility, i.e., often orienting towards extrinsic stimuli.
 3. Overfrequent changes between activities when choice is allowed.
 4. Excessively short duration of play activities, and by at least two of the following activity problems.
 5. Continuous and excessive motor restlessness (running, jumping, etc.) in school.
 6. Markedly excessive fidgeting and wriggling in structured situation.
 7. Excessive levels of off-task activity during tasks.
 8. Unduly often out of seat when required to be sitting.
- C. Directly observed abnormality of attention or activity. This must be excessive for the child's age and development level. The evidence may be any of the following.
1. Direct observation of the criteria in A or B above, i.e., not solely the report of parent and/or teacher.
 2. Observation of abnormal levels of motor activity, or off-task behaviour, or lack of persistence in activities, in a setting outside home or school (e.g., clinic or laboratory).
 3. Significant impairment of performance on psychometric test of attention.
- D. Does not meet criteria for pervasive developmental disorder, mania, depressive or anxiety disorder
- E. Onset before the age of six years.
- F. Duration of at least six months.
- G. IQ above 50.

The research diagnosis of Hyperkinetic disorder requires the definite presence of abnormal levels of inattention and restlessness that are pervasive across situations and persistent over time, that can be demonstrated by direct observation, and that are not caused by other disorders such as autism or affective disorders.

Eventually, assessment instruments should develop to the point where it is possible to take a quantitative cut-off score on reliable, valid, and standardised measures of hyperactive behaviour in the home and classroom, corresponding to the 95th percentile on both measures. Such criteria would then replace A and B above.

Appendix: 12

Transcript of Taped Interview (Learning Support Manager) June 2010

Q1. How many students in your care have been identified or diagnosed with ADHD/ASD-S-EBD?

LSM: ADHD is classed by the Borough as a high incidence difficulty and it is the borough's policy to reduce statements to a minimum. ASD would be described as a low incidence need. (Statement/Funding)

Q2. Do any of these students have a statement specifically for ADHD?

LSM: For ADHD no, for EBD yes. A statement is seen as a way of monitoring needs. (Statement)

Q3. Do you feel as a SENCO you have sufficient knowledge and experience to be able to identify young people with ADHD/EBD before a referral is necessary to external support services?

LSM: I feel I and colleagues have sufficient knowledge and experience to refer kids for consideration [assessment]. We will often say that a kid is or isn't. We've had parents who have taken kids for assessment because if you have a label you get Disability Living Allowance.

Q: Parents push for that?

LSM: Yeah, yeah. Parents push for a diagnosis of dyslexia, dyspraxia, obesity, all sorts of things to get DLA.

Q: What about experience?

LSM: Not to say a pupil has ADHD but enough experience to refer via parents to a GP. If there is no progress we might ourselves refer to CAMHS.

Q: Thank you.

(Experience/Labelling/Diagnosis) (Parents/DLA pressure)

Q4. Do you feel an increase in knowledge or additional training about complex disorders such as ADHD would help you to intervene earlier and more effectively than the normal referral process?

LSM: I actually think that should be happening in the primary schools. There should be more support for the primary schools. If you talk to the clinicians ASD is being identified in kids of 3 or 4. ADHD they can diagnose in early primary. EBD is diagnosed as soon as kids get into a social situation. So I think most of that [training] should be in primary schools. Resources should be devolved to primary because secondary schools are the rich cousins. (Resources, Primary)

Q: You yourself don 't feel you need any specialist training?

LSM: No, but I do feel as a whole school there needs to be more training because teachers who come through with subject specialisms don't have specialist training. And the training schedules are so tied-in to performance management and assessment there is very little scope or time for developmental INSET.

Q: But teachers look to you as the expert?

LSM: They do. If parents are called-in by the head I will be asked to attend as expert.
(Diagnosis/Training/Experience/Expertise)

Q5. How do you feel the current system of referral could be streamlined in view of the principle of early intervention?

LSM: There is not enough linked-up stuff between schools and other support agencies such as CAMHS. This is partly down to funding and that's going to get worse in the next few years. Our local CAMHS we would love to have working in our schools. We did have for a period of time a person working here two days a week as a family therapist it was fantastic. If something cropped-up the parent was able to come into school and meet with the therapist. However, that disappeared with funding changes. For the last year we've had a senior CAMHS person come in twice a week and I've been able to make referrals to local teams.

Q: Do you have any access to the behaviour support service? *LSM:* No not in this borough.

Primary has but not secondary.

Q: Even though you have an on-site pupil referral unit.

LSM: Well all schools are now required to have a learning support unit. Standards funding still comes in to support Learning Support Units but most bog standard comprehensives will have had an LSU all along. We called ours first a pastoral unit and then a PRU so parents knew it was something different.

Q: Is there a bit of a stigma having a PRU?

LSM: There are kids in there who only come for a couple of hours a day. Some kids spend the bigger part of the week in there.

Q: Thanks.

(Learning Support/Funding/Primary)

Q6. In your opinion should the SENCO as the key person for SEN provision be responsible for the initial identification of a medical or learning disorder?

LSM I find they [external support services] are quite efficient at making an assessment. Whether I agree with their assessment is another matter.

Q: What's the time span like for an assessment or diagnosis?

LSM: Between 3 and 6 months. Typically they will get people to do a Connors' and might repeat this test later. Also most will want to do other checks then physical, medical and family checks. It is a process of elimination really. We do Connors' surveys on loads of kids. I will find the most appropriate person in the school to do it who is best informed.

Q: What about Ed Psych's?

LSM: Yes sometimes but not always. The Ed Psych might not know the kids and might meet them in very artificial environments. Very often what they write about the kid is not the kid we see at all. Loads of staff never see a kid in a quiet office.

Q: Do you find getting hold of an Ed psych a problem?

LSM: No we have statutory time from the local authority. She's been with me for years so we have a very good relationship.

Q: How many hours do you get?

LSM: We have hours a year broken down termly. They come in for a planning meeting at the start of term then we break down the time to terms. We did move over to a bidding system where a group panel of EPs decided high priority cases but it didn't work it was a waste of time. Lots of meetings but not dealing with the kids.

(Experience/Diagnosis/Funding)

Q7. In your experience how effective do you feel the external support services are in providing early identification of complex SEN difficulties such as ADHD?

LSM: The main task that teachers are trying to carry out is to fulfil the work of the average class in the school. These classes will have two or three kids with dyslexia or other aspects. At least a couple of kids with some kind of EBD manifestations. Might be a visually impaired kid or an ASD kid that whole blend. Might be a kid in a wheel chair and you have to move furniture around and you're supposed to meet all those needs. If you ask teachers what the worst problem in schools is they will say behaviour management.

Q: ADHD kids present behaviour management issues.

LSM: Yeah. Problem is that ADHD kids will sit for hours doing something they want to do but won't sit for ten minutes doing something they don't want. Curriculum is a huge factor also how a teacher is meant to motivate 30 kids to one area of study is quite difficult.

Q: And ADHD kids have to be motivated?

LSM: Yeah. If they are not motivated that day to look at the rain cycle nothing is going to motivate them. But they are not going to sit there quietly and let the other kids get on with their work.

Q: No because they are bored or disaffected?

LSM: Yes they tend not to make good learners.
(Behaviour management/Curriculum)

Q8 and 9. What in your experience are the key difficulties presented by students with ADHD/EBD?

LSM: Classroom management and behaviour. If you look at the kids we have with the label they have a short attention span or drift off from focus and are not aware of it.
(Behaviour management)

Q10. Do you feel ADHD should be included under the umbrella term of EBD?

LSM: Yes.
(Labelling)

Q11. Which specific intervention strategies do you use for students identified with ADHD?

LSM: One is we make sure teachers are aware who they are through the SEN register. Another one is to give teachers coping strategies such as 50 tips for dealing with ADHD in the classroom. What I do is circulate to [teachers] the stuff that comes in, such as articles and guidance tips and anything useful to give to teachers. All NQTs are given an INSET each year and one of the things we cover is ADHD. We talk about strategies and behaviour has a high profile.
(Learning Support/Training)

Q12. In your view should students with ADHD type difficulties be included in a mainstream school?

LSM: Yes, providing it is working it is an individual thing. If it is not working I can't see the point of that kid being there. If that kid is there then it's damaging other kids.

Q: Where would you send them?

LSM: There is one provision in this borough with 40 statutory places and a waiting list of about 100. Also kids have to be transported from all over the borough so a lot of kids end up in the PRU. There is also one provision for primary kids full or part-time but they tend to need a statement but don't always have one. Also a key stage 3 centre for two days a week for a term, when referred by a school, for 3 or 4 kids. The biggest barrier to any kid in school is other kids' behaviour. A lot of kids suffer because they are trying but are in classes with poorly behaved kids who disrupt. A growing problem is the move away from mixed ability, which has made it worse for those kids.
(Learning Support/Behaviour management/Statement/Primary)

Q13. Do you feel undiagnosed or under-diagnosed ADHD is a problem in your school?

LSM: Not particularly because we deal with problems as they present themselves, which is why we sometimes dispute the diagnosis.

Q: Kids come in with the label?

LSM: Yeah, we sometimes dispute kids labelled as ADHD. We think there are loads of kids with another label - Oppositional Defiant Disorder (ODD). Just ODD and parents are pushing for ADHD because it is less stigmatising than ODD. We talk to parents about ADHD kids at home and we hear about the behaviours at home. So what works with this kid? Oh we give them a bike and he's out on the street cycling all the time. So does he get bored? Oh no he's fine. You give an ADHD kid a football they will play for hours. We have bad days when we are overwhelmed when we question does ADHD really exist.

Q: Yeah. So you don 't see the behaviour as pervasive? LSM:

No we don't meet many kids like that.

Q: Ok thank you. (Labelling/Experience/Behaviour Management)

Q14. Should conditions/disorders of a medical nature be part of normal SEN provision?

LSM: It's about individual kids. If that kid can be educated in school without affecting the education of other kids then yes.
(Learning Support)

Q15. According to OJSTED students with EBD are the biggest test to inclusion. Do you agree with their view?

LSM: Yes from all the discussions I have had with counterparts in other schools and teachers in this school and with kids. You become quite bitter and feel if you want to mess-up your learning that's your problem but you're messing-up twenty other kids learning every time you do this. But when you are with that kid on their own you soften and say but I do care about your learning, that's why I'm here, kind of thing.

Q: Yes that's the point thank you.
(Learning Support)

Coding Frequency:

Statement: 3

Experience: 4

Diagnosis: 3

Learning Support

Behaviour management: 4

Labelling: 3

Funding: 3

Parents/DLA: 1

Primary: 3

Resources: 1

Training: 1

Appendix: 13

SENCO INTERVIEWS CODING FORM

R Davies EdD Thesis

| Code | Interview 1: SENCO at Girls' School Frequency count | Interview 2: Learning Support manager at Co-Educational School Frequency count | Interview 3: SENCO at Co-Educational School Frequency count | Total Frequency Count |
|-------------------|--|---|---|--------------------------|
| Statement | 1 | 3 | 2 | 6 |
| Diagnosis | 1 | 3 | 1 | 5 |
| Primary | | 3 | 1 | 4 |
| Funding/Resources | | 4 | 1 | 5 |
| Labelling | | 3 | 3 | 6 |
| | 5 | 4 | 1 | 10 |
| Experience | 1 | 4 | 2 | 7 |
| | | | | |
| Training | 2 | 2 | | 4 |
| Parents/DLA | | 1 | | 1 |
| Learning Support | 3 | 5 | 1 | 9 |

Appendix: 14

Dear

I am currently conducting research on how teachers/SENCOs support children with a diagnosis of Attention Deficit Hyperactivity Disorder and Social Emotional and Behavioural Disorders. My research interests include children with a diagnosis of ADHD/S-EBD and those who exhibit symptoms/characteristic behaviours of disorders affecting behaviour/conduct but without a formal diagnosis.

I would very much appreciate if you could spare the time for me to conduct a short interview with you on this topic and I envisage that this will take not more than about 30 minutes.

The information gained from your interview will be used to assist my research in ADHD/EBD and other complex childhood difficulties. This research will also assist my work as a course coordinator for BA undergraduate courses in supporting learners with additional educational needs and managing additional educational needs.

If you agree to be part of this research project I would like to visit you on either a Wednesday (9-3) or Friday (9-4). If these times are not suitable to you another, more convenient, time could be arranged. Your responses to this research will be treated with the strictest confidence and anonymity.

An envelope and a reply slip are attached to this letter.

Thank you

Robert Davies

Education and Community Studies

0208 331 8812
dr49@gre.ac.uk

I would be able to see you for an interview on Wednesday at

I would be able to see you for an interview on Friday at

Appendix: 15

Interview schedule

How many students in your care have been identified/diagnosed with ADHD ASD S-EBD?

Do any of these students have a statement specifically for ADHD/EBD?

Do you feel, as SENCO, you have sufficient knowledge and experience to be able to identify young people with ADHD/EBD before referral to external support services?

Do you feel an increase in knowledge/additional training about complex disorders would help you to intervene earlier and more effectively than through the normal referral process?

How do you feel the current system of referral could be streamlined in view of the principle of early intervention of SEN?

In your opinion should the SENCO, as the key person for SEN provision, be responsible for the initial identification of a medical/learning disorder?

In your experience how effective/efficient do you feel external support services are in providing early identification of complex SEN difficulties such as ADHD?

What, in your experience, are the key difficulties presented by students with ADHD?

What, in your experience, do you feel are the key difficulties presented by students with S-EBD?

Do you feel ADHD should be included under the umbrella term of S-EBD?

Which specific intervention strategies do you use for students identified with ADHD?

In your view should students with these types of difficulties be included in a mainstream school?

Do you feel undiagnosed or under-diagnosed ADHD is a problem in your school?

Should conditions/disorders of a medical nature be a part of normal SEN provision?

According to OfSTED students with S-EBD are the biggest test to inclusion. Do you agree with their view?