The primary aim of this study was to explore the usefulness of sensory-motor behaviours as potential predictors of autism during the infancy period (9–12 months). Although there are extensive reports on the presence of sensory-motor difficulties in older children with autism, as well in retrospective accounts of the infancy period based on medical or parental reviews, the qualitative aspects of sensory-motor skills that may be disrupted in the early (under the age of 2 years) development of children with autism have not been studied in detail.

The participant groups in this study included 11 children with autism, 10 children with developmental delay and 11 normally developing children. The method of data collection applied was retrospective video analysis. First, all families were asked to provide any videotapes of their child taken under 2 years of age. Then a video editing procedure was followed, in which a random selection of various scenes was assembled into two 5-minute video compilations, for an exact total of 10 minutes per child. The video scoring procedure included coding of 7 behavioural categories (Looking & Gaze Aversion, Affect, Social Touch, Postural Adjustments, Responsiveness to Name, Motor and Object Stereotypes and Sensory Modulation) across 20 consecutive 15-second intervals in each 5-minute segment of video.

Overall, the findings of this study confirmed that measures of sensory-motor functioning (as well as aspects of social responsiveness) have potential as early markers of autism during infancy. In particular, children with autism were found to be different (accounted for 72% of the variance) from the other two groups on the following areas: excessive mouthing of objects, social touch aversions, poor orientation/attention to visual stimuli and prompted/delayed response to name. In the existing literature most inclusion studies have focused on teachers and parents of typically developing children. However, very little is known of the extent to which diagnosis and age of the child may affect parental views on inclusion and what factors contribute to parental satisfaction. This study had two objectives: (a) to examine the effects of age, diagnosis and current educational placement on parental perceptions towards inclusion, and (b) to explore what parents view as advantages of their child’s current placement and which placement they view as ideal.

Two groups of parents participated in the study: (a) 113 parents of children with autism and (b) 149 parents of children with Down’s syndrome. A postal questionnaire was devised including three sections. In the first part, descriptive information was obtained. The second part requested information about the current educational programme of the child with autism and Down’s syndrome and parent’s satisfaction with the current programme. Also, parents were asked to cite the advantages of their child’s current programme, by choosing as many of the seven multiple-choice options they wanted. In the third section, parents were asked to identify the ideal educational programme, by ranking as many out of six options from ‘most restrictive’ to ‘least restrictive’. Finally, they were asked to cite the possible advantages of their ideal programme in a multiple-choice format.

Results indicated that parents in both groups did not differ in their level of parental satisfaction. However, in terms of diagnostic group, parents of children with Down’s syndrome were more likely than parents of children with autism to choose inclusion with additional services as their ideal programme choice. In contrast, parents of children with autism favoured mainstreaming as an option.

A second major finding was that the age of the child influenced parental perceptions. Parents of youngest (preschoolers) children were the most supportive of inclusion (they considered inclusion as their ideal choice). A third finding was that the child’s current educational programme also affected parental views. Parents of children in special education were the least satisfied with their child’s current programme and a significant number of parents desired change more than parents of children in early intervention or general education programmes. The basic implication of the present study is that intervention programmes should carefully consider parental perspectives and desires and expectations for educating their children.


The present study examined the play interactions in families of children with autism. In particular, the research aimed to explore differences in the maternal, paternal and sibling behaviours in play interactions as well as the relationship between the social and language skills of children with autism with the occurrence of play interactions.

Nine families participated in the study, each of which included a father, a mother and a sibling. The mean age of the autistic children was 4 years 6 months and the mean difference between the child with autism and the sibling was 20 months. All families were observed on three visits to the home. On each visit, the child with autism was videotaped for approximately 15 minutes interacting in a dyad with his/her mother, sibling and father. After three visits, a maximum of 45 minutes of videotaped interactions was collected for most dyads.

Results revealed that mothers and fathers interacted more frequently than siblings with their children with autism. Further, parents of children with greater developmental delays tended to exhibit more play behaviours to their child, while parents of children with fewer delays tended to display fewer behaviours to their child. However, the high frequency of parent interactions with children with autism was not encouraging for the child with autism to initiate play and social interactions. With respect to siblings, they appeared to be approaching the observed interactions with children with autism in a manner.
similar to a typical play situation rather than teaching situation: they did not display most verbal and motor social behaviours. But, children with autism exhibited more vocal-verbal interactions towards siblings than towards their parents.

The findings of this study suggest that family training could be developed along this direction: incidental teaching for promoting initiations of social interactions by children with autism. In particular, one specific skill that could be taught to parents and siblings could be to display more play organisers for increasing the frequency of positive social interactions with children with autism.


The theoretical background for this study is the hypothesis proposed by Rogers and Pennington (1991) that autistic features can be explained as the result of an early deficit in imitation that is combined with later impairments in emotion perception, intersubjectivity and theory of mind. Brown and Whiten observed the spontaneous behaviour of 12 children and 12 adults with autism in four areas: imitation, theory of mind, social interaction and play/spontaneous behaviour. Three comparison groups of children were also observed: (i) children with moderate learning disabilities; (ii) 3–4 year old normal children; and (iii) 5–6 year old normal children. All groups were observed in their playgroup, school or training centre situation and the total time each individual was observed was 90 minutes.

Although the general picture emerging from the results is not fully clear, there seem to be a number of interesting findings. First, the deficit in imitation was not found to be autism specific: rather, the developmentally younger children (with mental ages of 4 years or below) in the sample showed more imitation than any other group. Second, the evidence of theory of mind was weak for all groups, although this was particularly so for the children and adults with autism. Third, the findings confirmed the core social interaction deficit of autism, as both autistic groups showed less social interaction than either of the normally developing groups. Fourth, the autistic groups generally showed less symbolic play than normal children. Finally, comparisons between play and classroom situation did not show any significant differences in the observed spontaneous behaviours.

Despite a number of methodological limitations in this study (small sample sizes, short observational periods, inadequate matching strategies and coding difficulties), two significant aspects of the research need to be acknowledged: its strong naturalistic focus and the finding that impaired imitation occurred in all groups.

**Reference**


**PSYCHOLOGY SELECTION**

Compiled by Jenny Walters

Although not a persistent theme, I realised that several of the papers I have chosen to review reflect the current trend for emphasising working in a multi-disciplinary way, and also the need to move towards integrated theories as our knowledge grows, particularly in the field of neurology and genetics.


This paper describes a service for families who have a child with Tourette's syndrome. In the hope of reducing high client demands on the service, a ‘drop-in’ clinic was offered whereby families could come to group meetings as required and at the same clinic have access to a neurologist, psychologist, or psychiatrist without a pre-arranged appointment. At the clinic separate group meetings were available for younger children, adolescents and parents.

The tremendous needs parents have for specialist support in coping with children with Tourette's became more apparent than expected: the aim of the drop-in service was to reduce the need for regular appointments with clinicians and increase parents’ competence. However, many wanted more than just the support groups and requested specific advice on, in particular, behaviour problems, school difficulties and depression. As a result, the demands on resources increased and the clinicians are now returning to an appointment system.


This paper explores possible treatments for young people under the age of 18 who experience gender dysphoria. It discusses the options of physical treatments both surgical and hormonal in a psychological and social context. A very thorough discussion crosses the boundaries of medical ethics, child development, politics, human rights, endocrinology and psychology. Despite psychological theories there is little evidence that psychological interventions have much effect in changing gender identity. Where changes have been noted there are no records of long-term follow-up. What is clear from the research is that gender-identity disordered adolescents almost invariably become gender-identity disordered adults. Surgical treatment is not currently allowed until the age of 18. There are some hormonal treatments available with varying degrees of permanence or reversibility.

Wren creates an interesting discussion around adolescent identity issues. If gender identity is core to a young person’s identity and the alternative is mental breakdown, there is no easy rationale for refusing to treat. However, the issues are complex in that adolescents can have strongly held convictions that can later alter, although there is no specific evidence that convictions regarding gender issues are subject to the same instability.

Issues of ‘informed’ consent are discussed. One study cited indicated that 14-year-olds are as capable as 18 and 21-year-olds in understanding treatment dilemmas. The clinician’s inevitable feelings of caution must be weighed against possible years of misery and self-hate that may occur in the adolescent. Surgery may need to be more complex and radical if treatment is postponed. Decision-making can be extremely complex and hampered by lack of agreement as to whether gender dysphoria is a mental illness, whether physical treatment is the treatment of choice, whether the young people concerned might change their minds, and whether they can ever fully grasp the implications of treatment.

Wren’s conclusions leave us with the message that society needs to create new mean-
ings to encompass transsexuals giving them ‘a new moral identity’.


Richards’ paper provides an excellent overview of chronic fatigue syndrome. It is divided into the following sections: an historical overview, definitions, epidemiology, aetiology, management, education and outcome. Richards stresses the unhelpful dichotomy between physical and mental illness and the need to keep an open and enquiring mind on this. She goes on to give an overview of the various treatment methods. Co-operation, understanding and trust between doctor and patient are emphasised, together with the importance of multi-agency working. Psychiatric involvement is sometimes refused by patients or their parents but if this leads to polarisation of views between clinicians it can be adverse to treatment. The question of inpatient or outpatient treatment is addressed. If the illness is prolonged, inpatient treatment may be needed. The initial stage of treatment may need to be paediatric, with subsequent involvement of mental health professionals.

Richards argues that among specific possible approaches, both medical and physical, none stands out apart from the use of anti-depressants where depression is a feature. Active rehabilitation and a graded exercise programme can be successful. Cognitive-behaviour therapy (CBT) has been found to be effective with adults by addressing cognitive distortions of sensations of fatigue. The patient is taught learning strategies other than avoidance and to reduce exercise, perfectionism and self-criticism. There are no randomised controlled trials of CBT with children with chronic fatigue syndrome yet. However, results of CBT trials with depressed children are promising in helping them to refute automatic thoughts and to revise their interpretation of events.

Where family models stress the somatising element (illness expressing conflict) Richards cautions us that so called ‘over-involvement’ by family members may represent a natural reaction by parents to grave illnesses in their children. Family models sometimes also fail to consider the child’s individual predisposition to develop disorders. ‘Reframing of illness’ and ‘creation of optimism’ is important. There is, however, a need for scientific evidence to support specific FT approaches. Further research is also needed as to why emotional pain might be expressed as fatigue.

Regarding education, school phobia can develop especially where there is home tuition for long periods of time. There is therefore a need for a treatment and rehabilitation strategy. Richards points out that this view is in contrast with that of the support groups which tend to place emphasis on the importance of rest and giving up school. She argues the need to foster optimism and offer treatments that encourage a return to normal function as soon as possible.

There are sparse data on outcome of this illness, but follow-up studies suggest a favourable outcome. For adults poor prognostic factors are older age, more chronic illness, co-morbid psychiatric disorder and a belief that the illness is physical.


This paper highlights the considerable difficulties associated with working with teenagers who have poor control over anger and aggressive behaviour. These behaviours have long-term serious consequences and carry a poor prognosis. The costs to society can be enormous so interventions attempting to alter such patterns of behaviour should be well supported.

Sharry and Owens note the success of social learning and behavioural models but also their limitations in terms of long-term gains or maintenance. Engagement of this reluctant group is seen as a big obstacle and the authors try to identify what facilitation approaches work optimally. Using a solution-focused therapy (SFT) approach they describe a group of six adolescent boys aged 13–16 years who attended a special school who children with emotional and behavioural difficulties. The SFT approach was chosen for the initial stages of engagement in order to move on subsequently to more cognitive-behavioural anger management techniques. The SFT model is essentially built on three principles: that of building on exceptions of behaviour from the norm; using the clients’ language and metaphors and working within in their frame of reference; and attending to their motivation levels. Clients can be characterised as customers (willing and motivated), complainants (see the problem as being located outside themselves), or visitors (not willing participants in therapy). The adolescents in this group were judged as falling into the latter category and it was seen as very important by the authors to recognise this.

Sharry and Owens also acknowledge that, despite a shared gender between therapists and adolescents, there were major gaps between them with respect to life experience and culture. Non-verbal ways of resolving difficulties were the norm for the adolescents. The task therefore in the initial stages of the group was to share this knowledge and invite the boys to ‘consider the rules of other cultures’; thus opening up new choices and possibilities or new ‘rules of engagement’. Narrative sequences are included in this paper to illustrate these points, which I found extremely helpful.


This is a useful review article on the different types of role the mental health consultant can take in a paediatric setting. Four types of paediatric team meetings are described:

- Traditional method - no mental health consultant
- Psychosocial
- Family Conference
- Staff centred - facilitated by mental health consultant (psychological support for staff, especially where there has been a death or there are dying children).

Possible functions of the mental health consultant are delineated. These include: an advisory role, as an advocate for the family’s needs and concerns; work with the family regarding medical recommendations; mediation between parents and paediatrician; an educational function on mental health issues; a voice for the child’s developmental needs; advice on when to include families in team meetings; looking at avoidance of staff e.g., missing meetings because of difficult and painful issues to discuss; and the voice of the biopsychosocial model, integrating information from multiple sources.

The authors conclude that there is a paucity of research to support the effectiveness of team meetings concerning both cost reduction and psychological outcome. More studies are needed regarding these issues.
Attachment and Human Development (1999–2000)

This is a very recent journal, which began last year. The first two editions contain many exciting papers grappling with the nature-nurture issues of attachment theory. There are clinical and theoretical accounts and it was difficult to choose which papers to review. I finally chose a theoretical one, an ethnological case study and a piece of clinical research.


This paper examines how findings from behavioural genetic studies have challenged basic assumptions regarding social and personality development. It considers ways in which the methods and theories of behavioural genetics and attachment theory can be mutually informative. The paper discusses four areas, as follows: how adoptive and twin studies might elucidate the arguments; the concepts of shared and non-shared environments; the role of temperament; and an overview of the methodological and analytic issues in merging the theories.

The authors point out that Bowlby never ruled out genetic explanations but simply drew attention to the phenotypic similarities between parents’ behaviours and those of their offspring. Findings indicate that siblings in families develop similar attachment relationships with their mothers (no investigations yet for fathers) but this could equally be a genetic relationship. A consistent tendency emerges from research to show a stronger association between parenting behaviour and child adjustment in biological as compared with adoptive parent-child dyads. However, there is compelling evidence from MZ and DZ twin studies of high concordance in attachment in both groups, supporting the idea of the importance of environmental effects.

There are no studies yet that look at attachment and differential parenting perspectives in the same family. The authors ask the question: is differential parenting due to genetic factors in the child or do parents have child-specific models of parenting? The question is not only whether children with different temperamental characteristics elicit different parenting behaviour, but also whether a child with negative temperamental characteristics can elicit non-secure parenting from an otherwise securely attached parent.

Methodological limitations of studies are discussed throughout. Although a stimulating and thought-provoking review, it remains inconclusive. I am better informed about the various research studies in the area, but not a lot further on in my thinking about the major issues.


This paper looks at the development of attachment to mothers and fathers in 145 Californian infants aged 12–20 months with particular reference to the effects of divorce/separation and the effects of overnight stays. Three groups of infants were studied: a group who stayed overnight at least once a month with the father; a group where the infant did not have overnight stays with the father but saw him at least once a month; and a group of infants from intact families. The parents were interviewed about their relationship with the baby, completed questionnaires on mental health and relationships, and were observed with their children using the Strange Situation Test.

Infants who had regular overnight visits with fathers were significantly less likely to be classified as secure and more likely to be classified as ‘disorganised’ or ‘unclassifiable’ in their attachment to mother than infants in the dual parent or no-overnight groups. It was found that attachment to father was unrelated to visiting arrangements but that infants were more likely to be classified as ‘disorganised’ or ‘unclassifiable’ with father in the divorced group than in the dual parent group. ‘Disorganised’ attachment to mother in the overnight group was associated with maternal reports of low parent communication and high parent conflict, and low maternal psychological protection of the infant.

The authors suggest that repeated overnight separations from the primary caregiver are associated with disruption in attachment where parents are unable to provide adequate psychological support to the child. Mothers who had securely attached infants in the context of overnight visitation were those who reported active psychological protection of the infant and lower conflict with the father.

The importance is stressed of the beneficial effects of good communication between fathers and mothers in the attachment of their infants whether they were in the overnight or maritally intact groups. Some recommendations for policy are made. The very important point that emerged from this paper was that the place, frequency, and duration of visits are seen as less important than how the couples manage separation, reunion, and interaction and how they protect and support the child.

Fathers felt with regard to visits that they did not have sufficient opportunity to develop meaningful relationships with their babies. The authors feel that ‘developmental guidance’ might be more helpful than changes in the amount of time spent or patterning of arrangements. There is clearly a need for research on the effects of overnight visitation in older children who often manage two homes, possibly more, for the benefit of the parents rather than the children.


This paper describes the case-history of a female goose (Feli) reared in isolation in the early 1960s to illustrate the conditions under which attachment disorder evolves. The cruelty of the experiment with Feli is acknowledged by the author. It is hoped that the story can be used in a meaningful way to compensate in part for the suffering endured by the goose. The author hopes to demonstrate the origins of attachment disordered behaviour (adhb) as a ‘functionally adapted biological process’. She compares adhb neurotic symptoms and their disappearance in therapy.

Fischer-Mamblosa believes that neurotic behaviour is due to an early disturbed balance of fear and attachment and refers to this as ‘our animal heritage’. Imprinting (the process described originally by Konrad Lorenz, 1935) occurs in geese in the first days of life. Feli was isolated from her species for 8 weeks at the beginning of her life. She produced greeting behaviour but lack of response gradually led to frantic outbreaks of ‘escape behaviour’. There was no imprinting possible. After 8 weeks Feli was freed and was very anxious. She ran back to her enclosure when approached by geese or humans. As her feeding bowl was gradually moved to greater proximity she adapted a little to the group but after feeding again retreated to her enclosure. She did not seek company for some time and when she began to was
rejected by family groups. The conflict between approach and avoidance or rejection produced preening and shaking behaviour. Later, she became withdrawn and apathetic. She fed less and became weak.

Having failed to mate previously, Feli finally paired with a male in her fourth spring, but fled thereafter. She sat for the 4-week incubation period but only one gosling hatched. Not surprisingly, when the gosling emitted greeting behaviour, Feli was unresponsive and began to preen and shake. She ignored the gosling’s distress and the gosling died. She assumed an ‘impasive, apathetic’ state.

The following year inseminated ducks’ eggs were put into Feli’s nest but the chicks failed to survive. However, in the sixth year, despite Feli’s apathetic behaviour, the ducklings somehow survived, greeting each other and seeking warmth and comfort from proximity with Feli. Slowly she began to respond to their greetings and an attachment emerged. Subsequently, Feli paired with an older gander on the periphery of the group and for 4 years they reared goslings normally.

The author explains how the lack of an early attachment object leads to neurosis. The mother-figure has to be the centre of attachment and escape behaviour. However, the author believes the study is hopeful because through a ‘re-printing process’ Feli was able to overcome her early trauma as an adult. The author suggests that this can happen in therapy through transference. The drawback in practical terms, however, especially in these days of demands for financial stringency and encouragement for short-term therapies or ‘quick-fixes,’ is that the regenerative process for humans may be long, repetitive and expensive.

**CHILD & ADOLESCENT PSYCHIATRY SELECTION**

Compiled by Andrew Clark


The first of these articles is a slightly provocative paper, initially given as the 1999 Rutter Lecture, which questions the nature of evidence underpinning child psychiatric practice. In it Graham argues strongly that to focus predominantly upon the randomised controlled trial (RCT) is to exclude other means of investigation, particularly those of a qualitative nature, which also may contain important lessons for practice. Whilst not disputing the position of the RCT as the ‘gold standard’ for evidence, he argues that RCTs can only address certain forms of questions and for some conditions and situations an RCT methodology may not exist or even be feasible. In particular, he cites the difficulty in generalising from RCT findings to individual clinical cases who may have significant co-morbidity or who may present with marked functional impairments but fail to reach full diagnostic criteria for a specific disorder. Qualitative research may help take us further in understanding what interventions may be more acceptable and how they may be more systematically delivered.

Harrington, in his response, distinguishes between the efficacy RCT, which is concerned with ideal practice, and the pragmatic or effectiveness RCT, which attempts to carry out the trial in the real world situation with minimal exclusion criteria, clinically relevant measures, and including satisfaction and economic analyses. He argues that greater use of pragmatic trials will address many of the points raised by Graham and these should therefore be the direction of future research. Where both authors do, however, agree is in the challenge in bringing the findings from research into routine clinical practice and in the need to clarify and dismantle the barriers that currently prevent implementation.


Concern at the influence of the media in shaping behaviours, views and beliefs of children about their world is widespread in both professional and lay arenas and has been related to themes of violence, body image and sexuality amongst others. This paper attempts to address the question of how the media addresses and portrays mental illness in programmes specifically targeted at children.

The authors watched one week of children’s daytime TV on two TV channels in New Zealand and analysed the content for references to or depictions of mental illness or disturbance. In nearly half of the programmes (59/128) there was some apparent reference to mental illness, usually by use of disparaging or denigratory words such as ‘crazy’, ‘mad’, ‘losing your mind’, ‘nuts’, ‘bananas’ or similar. Nearly all instances portrayed a negative view of mental illness as being either comic and a focus of derision, or as dangerous and a focus for fear.

The study did not look at the impact upon the children of these programmes nor at the children’s own understanding of either mental health or the terminology used in the programmes. However, the fact that mental illness is shown in such a stigmatising and negative way to children from an early age poses a major challenge both to destigmatising campaigns, such as that of the Royal College of Psychiatrists (Changing Minds), and to direct provision of services to young people suffering from mental health problems.


Do families of young people with anorexia nervosa show over-concern or over-protection, and even if so, is it merely a response to the impact of having a family member with a life threatening disorder? This paper attempts to clarify whether maternal overprotection might play an aetiological role in the development of anorexia nervosa by examining a cohort of 40 teenagers with the disorder and a matched control group. Obtaining data from contemporaneous obstetric and general practitioner records in addition to that from maternal interviews meant that the problems of selective recall and attributional bias were reduced.

Obstetric loss occurred more frequently amongst the anorexia group (10 cases) than the controls (3 cases) although this did not quite reach statistical significance. Nonetheless, the authors do attempt to attribute clinical significance, citing in support the qualitative verbatim statements of the families about their losses and the impact of these. Similarly, no other obstetric factor discriminated statistically between the two groups. In contrast, maternal recollections of concern and maternal anxiety were both significantly more common in the anorexia group. However, such recollections are
open to having been influenced by the experience of having an ill daughter and cannot be taken as necessarily indicative of pre-existing high levels of concern.

Despite these caveats, however, the study has many methodological strengths and does therefore add weight to the hypothesis that parental high concern may be a factor in the subsequent development of anorexia nervosa.


The question of what is the most appropriate treatment model for young people and adults suffering from anorexia nervosa continues to be the subject of much lay and professional debate. Issues include the relative merits of specialist versus generic services and of in- or outpatient ways of working. There is, however, surprisingly little robust research upon which the practitioner can base a judgement. This paper reports the medium term outcome of 75 young people seen within one regional adolescent service and examines factors associated with good or poor outcome.

The overall outcome was relatively poor, with only 45% of patients achieving good outcome (defined as weight > 85%, menstruation resumed, satisfactory social functioning) and with a mortality of 2/75. Those patients who received inpatient treatment did particularly badly and this factor was indeed the major predictor of poor outcome, outweighing all indices related to illness severity.

The authors go on to argue that inpatient treatment for anorexia nervosa exerts negative effects in its own right by increasing dependency and reducing autonomy and that for some individuals these effects may outweigh any temporary benefits of admission. This is an important question and one that can only fully be addressed by a randomised controlled trial of inpatient and outpatient treatments. Gowers is indeed now leading such a trial, funded by the Health Technology Assessment Programme, and its results will be eagerly awaited (albeit not available for at least another four years).

PSYCHIATRY SELECTION
Compiled by Ian Berg


This group of papers on a particular theme is concerned with DSM IV diagnostic categories, symptom checklists such as the CBCL and measures of social impairment in indicating disturbance. The introductory paper discusses what ‘gold standard’ should be used to validate diagnoses, how to deal with false positives in predicting diagnoses from symptom scales, and why some children with high symptom scores do not justify a DSM IV diagnosis. Peter Jensen, one of the contributors, comes from the Developmental Psychopathology Research Branch of the American National Institute of Mental Health. He is clearly concerned that DSM IV diagnostic categories are given too much importance in deciding who gets treatment, and who is considered to be ‘normal’.

The article by Costello, Angold and Keeler, at Duke University, North Carolina, looks at the problems of 300 children aged 7 to 11 years, to find out how those who were given a DSM IV diagnosis differed from those who were not, 7 years later. Severity and number of symptoms, as well as degree of social impairment, were measured. The term ‘serious emotional disorder’ (SED) was used for psychiatric disorders accompanied by impaired functioning. Children with or without a DSM IV diagnosis and with or without social impairment were compared. They included those with high scores on the child behaviour checklist (CBCL) symptom scale and a random sample of others. Parents and children were interviewed using the Diagnostic Interview Scale for Children (DISC) using version 1.3 initially and 2.1 five to seven years later. Only some categories of DSM IV require evidence of impaired functioning to make a diagnosis, although there should always be evidence of distress as well as symptoms. The authors estimated functional impairment by using the Children’s Global Assessment Scale (CGAS) and a competence score from the CBCL. They distinguished two levels of clinical diagnosis: ‘clinical’ and ‘threshold’, the former being the more severe.

At follow-up, for the girls, SED in adolescence was associated with the earlier presence of both functional impairment and emotional disorder. Among the boys, emotional disorders did not lead to SED. For both boys and girls, even a threshold behavioural disorder in childhood was associated with later SED, irrespective of functional impairment. Impairment rarely occurred without a DSM IV disorder. The study thus indicated the value of DSM IV diagnosis in behavioural disorders, irrespective of impairment, but showed that social impairment was significant in girls with emotional disorders.

The next paper in the series was written by the same group of investigators at Duke University. As part of the Great Smoky Mountain Study, they looked at groups of high scorers on a list of CBCL symptoms and a sample of low scores. About 1000 children aged 9, 11 and 13 years and their parents were interviewed and then re-interviewed one year later. Social impairment was looked at as well as DSM IIIR diagnoses. DISC, the scale used by the study referred to above, is ‘respondent’ based since simple answers to questions result in scores on the scale. They used CAPA in this study, the Child and Adolescent Psychiatric Assessment Scale that is ‘interviewer’ based, since it is the interviewer who uses a glossary to judge the scores to be given to answers. As in the case of DISC, CAPA data are fed into a computer and an algorithm automatically produces a DSM diagnosis. A problem with this procedure is that in the less well-defined DSM categories the information put into the computer does not lead to a diagnosis being made. Clinically, a category such as ‘Not otherwise specified’ or ‘a category V code’ indicate impairment might have been used.

The authors found that half the children already being treated for psychiatric problems had none of the 29 well-defined DSM IV diagnoses. They argue that these findings suggest that symptoms accompanied by social impairment should be
considered as constituting a psychiatric diagnosis even if DSM IV criteria are not met. Only about 5% of the children in this study had a relationship problem that was unrelated to symptoms.

The last paper in the symposium by Jensen and Watanabe used the CBCL and DISC 2.1 amongst other scales to study a sample of 200 children. Four groups were compared: true positives — high CBCL scores and a DSM diagnosis; true negatives — lower CBCL scores and no DSM diagnosis; false positives — high CBCL scores but no DSM diagnosis; and false negatives — lower CBCL scores and a DSM diagnosis. They were looked at against various external validators. True positives were clearly different from true negatives. False positives scored as significantly more disturbed on external validators than true negatives, indicating that high symptom scores even in the absence of a DSM diagnosis may represent a valid indicator of psychopathology.


This article is of one of eight papers devoted to paediatric psychopharmacology in this issue of the journal. It used two recent large scale epidemiological surveys in the USA, the 1995 NAMCS National Ambulatory Medical Care Survey, and the 1995 NDTI the National Disease and Therapeutic Index, to look at the use of 11 categories of psychotropic drugs by young people under 18 years of age. Stimulants were by far the most frequently prescribed psychotropic agents. There was evidence that in the 1990s a shift had occurred from tricyclic antidepressants (TCAs) to selective serotonin reuptake inhibitors (SSRIs), but TCAs were still extensively used. Usage was looked at in relation to evidence of efficiency in the literature. Evidence rated as Level A involved support by 2 or more randomly controlled trials (RCTs), Level B involved at least one RCT and Level C involved ‘informed clinical opinion’, case reports or uncontrolled trials, or controlled trials confined to adults. Short and long term safety of usage were also studied.

The authors found that there was a mismatch between level of prescribing of non-stimulant drugs and scientific evidence for their use. They emphasise the importance of a risk benefit analysis that includes safety. They note that insufficient RCTs include children and that most RCTs are not large enough to detect rare adverse drug events. Several drugs may be used (polypharmacy), despite there being little evidence on the effects of interactions between them. Some alarming effects are mentioned in the paper, such as mania following the use of carbamazepine and fatalities after combining clonidine and methylphenidate. Considering efficacy, not a single drug was considered to have level A efficacy long term and only stimulants for ADHD long term were given a B rating! In regard to short term efficacy, the only A rating other than stimulants for ADHD were SSRIs for Obsessive-Compulsive Disorder and antipsychotics in Tourette’s Disorder. The authors point out that data for long term efficacy of stimulants should soon become available when the results of four long term studies are published. Some progress is being made to improve the situation, but those who use medication for children with psychiatric problems should be aware of the small evidence base for their prescription at the present time.


This is Michael Rutter’s Presidential address to the ninth meeting of the International Society for Research in Child and Adolescent Psychopathology (ISERCAP) in Barcelona, July 1999, in which he presents a review of current studies concerning the genetic basis for autism. It is clear that there is a major genetic contribution to the aetiology of autism and probably a wider range of associated problems, which can also occur in non-autistic members of the family. The concordance rate for autism between MZ twins, where it is about 60%, and DZ twins, where it is only a few percent, as it is in other brothers and sisters, says something about the likelihood of inheritance. Autistic individuals rarely have children, so vertical transmission is not seen. The presence of severe learning disability with autism does not appear to affect the genetic basis of autism. It is not known why the condition is more common in boys than girls. Some physical conditions such as epilepsy and tuberous sclerosis are particularly associated with autism, but it is not known if the genetic basis is then affected. There are good reasons for including in genetic studies of autism particular associated problems such as over-sensitivity, aloofness and some language difficulties, which can affect members of the family.

All the evidence suggests that a small number of genes cause autism. Linkage, which attempts to place causative genes in particular chromosome loci, is indicated by a statistic: LOD which is the log odds to base 10. A positive LOD of 3 or more is taken to indicate linkage. This is the case with chromosome 7 in autism. The term phenocopy is applied when autism occurs through severe sensory deprivation as in congenital blindness or rearing in old fashioned institutions, since genetic factors may then play little part in causation. Rutter reviews a range of different techniques that have been used to find relevant genes and discusses the use of imprinting, which indicates whether genetic transmission comes via the mother or father. He speculates as to whether different aspects of autism could be separately inherited. This is a helpful paper for those who want to keep up to date with a rapidly developing field of study.