

Liaison child and adolescent psychiatry

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Liaison child and adolescent psychiatry has been described as the “partnership of child psychiatrists, paediatricians and other specialities concerned with children to provide integrated medical and psychological care for children” (Black *et al*, 1990). Although liaison work conjures up visions of the psychiatrist on the paediatric ward, it may also involve collaboration with community paediatric and primary care services. Indeed, the number of different professionals that may be involved with even quite mildly ill children is large (see Box 1). Much of the work is indirect (e.g. consultation with other professionals), but this and direct therapeutic work with children and families may continue long after discharge from the paediatric wards and clinics.

In this article we will describe what liaison child and adolescent psychiatry is, the kinds of problems

that present and their prevalence, and a model of service provision. In addition we will discuss in more detail the presentation and management of physical symptoms with a psychological cause, and psychological adaptation to chronic illness. We will only be discussing liaison around children with physical illness and disability. Evered *et al* (1989) describe in some detail liaison with child development teams and other services for children with learning difficulties.

Child and adolescent psychiatrists who provide liaison services are likely to do so in collaboration with other members of a multidisciplinary child mental health team. For convenience we will refer to child and adolescent psychiatrists throughout this article, although many of the tasks can be carried out by other members of the team. Children are referred to liaison services for a number of

Box 1. Professionals likely to be involved with the care of chronically ill children

Consultant paediatrician
Junior paediatric staff
Nursing staff
Physiotherapist
Speech therapist
Occupational therapist
Dietitian
Liaison health visitor
Paediatric social worker
Hospital school teacher

Child and adolescent psychiatrist
Clinical psychologist
Psychiatric social worker
Community psychiatric nurse
Child psychotherapist
Staff from voluntary agencies

General practitioner
Health visitor
Specialist liaison nurse/health visitor
Physiotherapist
Occupational therapist
Speech therapist
Local area social worker

Head teacher
Head of year
Form teacher
Head of special needs
Special needs teacher
Educational psychologist
Educational welfare officer/social worker
School nurse
School doctor

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Box 2. Common presentations to the liaison child and adolescent psychiatrist

Physical symptoms with psychological causes (e.g. conversion disorders, headaches, recurrent abdominal and other pains).

Psychiatric disorders which present with physical symptoms (e.g. anorexia nervosa and other eating disorders).

Deliberate self-harm.

Psychiatric disorders exacerbated by physical illness.

Suspected child abuse.

Physical illnesses exacerbated by psychological factors.

Serious and life-threatening illness, trauma and disaster.

Physical or learning disability.

Physical illness where psychological treatments may form part of the management plan (e.g. management of pain, reduction of chemotherapy side-effects, reduction of non-compliance).

reasons (see Box 2). Some of the commoner of these presentations will be covered in more detail later in this paper. However, in addition to these referrals, the active involvement of child mental health teams with paediatric services may have wider benefits by increasing the 'psychosocial awareness' of other staff. Wilkinson (1992) has described this primary prevention role as including (a) support for staff through consultation or support groups; (b) increased age-appropriate communication, and promotion of the use of materials (such as specialist toys) to enhance that communication; and (c) the facilitation of child and parent coping strategies.

Epidemiology

The number of children who might come to the attention of a liaison service is large. Chronic paediatric disease and disability affects nearly one-fifth of the child population (Cadman *et al*, 1987). Children with chronic illness are twice as likely to have psychiatric disorders as healthy children (Rutter *et al*, 1970; Cadman *et al*, 1987); children with both chronic illness and a disability are three times as likely to have psychiatric disorders. In a Canadian community study (Cadman *et al*, 1987),

psychiatric disorder was found in 14.1% of healthy children, 23.4% of those with chronic illness (odds ratio 2.1), and 32.6% of those with a chronic illness and a disability (odds ratio 3.4).

In a group of children with mixed diagnoses, significantly more behavioural problems and poorer social competence were found, with little difference attributable to socio-economic status, age or sex of the child or diagnosis (Wallander *et al*, 1989). Rutter *et al* (1970) reported that children with a chronic illness affecting the central nervous system are especially at risk, being five times as likely to have a psychiatric disorder as healthy children.

Physical symptoms, as opposed to diagnosed disease, can be even commoner. Twenty-five per cent of children aged 5–6 in a community sample had non-organic recurrent abdominal pain (Faull & Nicol, 1986).

Psychiatric disorder is also commonly encountered in children presenting to primary care practitioners, being found in 23% of 7–12-year-olds attending a general practice in the north of England (Garraalda & Bailey, 1986) and 22% of 7–11-year-olds visiting a primary care paediatrician in the US (Costello *et al*, 1988). Finally, 'behavioural deviance' has also been identified in 44% of children attending paediatric surgical clinics (Fitzgerald, 1985).

Physical symptoms with psychological causes

Children in this group can present with a wide variety of physical symptoms. At one end of the spectrum are the 'classical' conversion disorders. Common presentations include disturbances of gait (sometimes severe enough to prevent walking), other disorders of motor function, pseudoseizures, and disturbances of sensation and vision. The possibility of undiagnosed organic disorder must always be considered, especially when the presenting symptom is disturbance of vision (Rivinus *et al*, 1975). Nevertheless, these children have usually been extensively investigated, in some cases overinvestigated, before referral to child psychiatry. Indeed, one of the benefits of close liaison relationships is that investigation of such children can include both the physical and the psychological, often reducing the time needed for active diagnosis and increasing the likelihood of effective treatment.

Conversion disorders are relatively rare in practice (1–2% of referrals to child psychiatric clinics), and commoner in girls than in boys. They

are rare under the age of five years. In many cases, despite the seriousness of the physical symptoms, there appears to be little in the way of identifiable underlying child and family psychopathology (Grattan-Smith *et al*, 1988; Leslie, 1988). More common is a family background of emotional closeness or overinvolvement, poor communication, and often a family history of using illness as a means of communication. Episodes of conversion disorder may start with a 'genuine' physical illness with illness behaviour continuing after its resolution. Often there is a 'model' for the patient to copy – someone in or close to the family who has had similar symptoms.

At the other end of the spectrum are recurrent abdominal and other pains. Although there is evidence that most recurrent abdominal pains do not have organic causes and may be linked with psychosocial factors, this is not the case with headaches and other recurrent pains, although such symptoms may at times be caused or exacerbated by psychological factors. Recurrent abdominal pain is common, and children who present with it are likely to be from families with a history of ill health, and to have experienced recent life stresses. Their parents are more likely to acknowledge psychological causes, particularly worries about school, as contributing to the symptoms (Faull & Nicol, 1986).

Management

Treatment of conversion disorders such as hysterical paralysis involves close collaboration between psychiatric and paediatric staff, and clear communication of this joint approach to the family. Physical investigation must be thorough, and seen to be thorough by the family. The idea of a psychological component to causation can be introduced early, but to some families psychological interventions are unacceptable while physical causes are still being ruled out. Staff, too, may have to be encouraged to adopt a non-punitive approach and to accept that symptoms are real for the child, even if not organically based. There is, however, a fine line to be walked between colluding with parents and unnecessary confrontation. Given the frequent lack of serious underlying psychopathology, lengthy discussions about aetiology are best avoided. A plan which recognises the reality of the symptoms irrespective of cause, which focuses on rehabilitation, and which uses physiotherapy directed at the symptom as an adjunct to sensible behavioural advice about management of that symptom, is most likely to succeed. Where underlying family or environmental stressors are

identified, these should obviously be addressed. Continued admission is not usually indicated once investigation is complete and wherever possible children should return to a normal life-style as soon as possible, including school attendance.

With symptoms such as recurrent abdominal pain a similar approach may be helpful. Once serious physical disease has been excluded, children and families will need a rational explanation as to how 'stress' can cause physical symptoms. This is usually possible by exploring parental reactions to stressful experiences such as driving tests, job interviews, and so on. Most parents will describe some physical symptoms and will be able to acknowledge that these were real but not caused by illness. It is important to explore what, if any, specific anxieties the parents may have and to provide specific reassurance about these worries. Any remediable underlying stressors should be dealt with. A swift return to a normal routine with supportive counselling is often sufficient for change. Physical treatments such as physiotherapy are not indicated, but relaxation and other anxiety management techniques may be helpful.

Chronic illness

The effects of chronic illness on children and their families have been widely researched. Diagnosis *per se* does not seem to be predictive of child adjustment (Wallander *et al*, 1989). However, duration and severity of illness, chronicity, visibility, age at onset, interference with normal functioning, and the speed and effectiveness of medical diagnosis and communication, may be associated with child adjustment problems (Pless & Nolan, 1991) (Box 3). Children's adjustment to chronic illness is not static and can change with time. Breslau & Marshall (1985) showed that the psychosocial adjustment of children with cystic fibrosis improved over a five-year period. Parental ratings of severity may predict levels of stress or psychological state more than objective or physician-rated measures of their children's illness (Jessop *et al*, 1988). The importance of parental perception is further illustrated by the finding that children's diabetic control is more related to parental treatment goals than those of the physician (Marteau *et al*, 1987a).

If the disease is life-threatening, psychological adjustment will be poorer. Howarth (1972) found a 40% prevalence of psychiatric disorder in the fatally ill (leukaemia and cystic fibrosis) as opposed to 8% in children with non-fatal illnesses. This study

Box 3. Factors that may predict adaptation to chronic illness

Age of child at onset
 Duration
 Severity
 Chronicity
 Predictability of disease process
 Visibility of disease
 Loss of function/degree of disability
 Threat to life due to disease
 Medical communication
 Treatments with adverse side-effects
 Child and family coping strategies
 Parental perceptions of severity
 Family functioning

is rather old now, and it is of interest that, at the same time as medical advances have led to a change in the prognosis of cystic fibrosis, evidence is emerging to suggest that psychological disturbance is not as great in children with cystic fibrosis as had once been thought.

Parents are profoundly affected by the illness of their children, and are more likely than other parents to show psychological disturbance. Hughes & Lieberman (1990), for example, found that about 33% of parents of children in remission from cancer had continuing moderate to severe anxiety, and a similar proportion had severe difficulty in communicating with each other. Maguire (1983) found 28% of mothers of children with leukaemia had morbid anxiety/depression at 12–18 months post-diagnosis, compared with 8% of controls. However, mothers of diabetic children have only a short period of self-resolving depression after diagnosis, and then seem to be well-adjusted (Kovacs, 1982). Much more is known about maternal than paternal coping (Eiser, 1990), but where comparisons have been made, mothers show poorer adjustment than fathers. Although parents of children with physical disease are not more likely to divorce than parents of well children, they are more likely to experience marital distress (Sabbeth & Leventhal, 1984). There is also evidence of increased risk of behavioural and emotional disturbance in the siblings of children who are chronically ill (Garrison & McQuiston, 1989).

Less research has been directed at family functioning than at the adaptation of individuals, even though the family environment may be a strong determinant of an individual's ability to cope. A number of studies have linked family dysfunction with poor health. For example, Hoare

(1987) found dysfunction in families of children with epilepsy. Johnson (1988) found that conflict, disorganisation and poor supervision were linked to poor diabetic health. Good diabetic control was predicted by a high degree of emotional expressiveness, and both enmeshed and non-cohesive family relationships (Cederblad *et al*, 1982; Marteau *et al*, 1987b). The diagnosis of chronic illness in a child has effects which spread out through the extended family and can bring about major changes within individuals and in the relationships between family members. Having a child with a chronic illness may also increase a family's economic difficulties as a result of reduced earning capacity, with increased work required at home and increasing costs in caring for children (Perrin & MacLean, 1988).

Management

It is important to bear in mind that, despite the evidence quoted above, most children with a chronic illness and their families do well psychologically. The main burden of communicating the diagnosis to children and families and supporting them through this early period of adjustment rightly falls on acute paediatric and/or primary care staff. In some units the child and adolescent psychiatrist is introduced routinely to the family at the time of diagnosis. If the psychiatrist can be included at this stage with the message that all families find adaptation difficult and some benefit from extra help, then the task of engaging families at a later stage when problems arise can be made much easier. In addition to the direct management of children who develop formal psychiatric disorder, the psychiatrist has two main roles: firstly, to enhance communication within families, within staff groups, and between families and staff; and secondly, to provide support during acceptance of the diagnosis and allow ventilation of feelings within the staff group as well as within the family.

Psychiatric disorders

Children with psychiatric disorders are not immune from coincident physical illness, and therefore the liaison child and adolescent psychiatrist will be called on from time to time to assist in the management of children with emotional and behavioural disorders on the paediatric ward. Management here consists of educating staff about the child's problems, minimising the stress of

admission for the child and family, and liaising with the mental health professionals who were treating the child before admission. A particular problem occurs in younger children with conduct disorders, who can create havoc on a busy paediatric ward and tend to generate responses from staff which reinforce the unwanted behaviour. Advice can be given to nursing and play staff about sensible behavioural management while the child is on the ward.

Some disorders, such as anorexia nervosa, are clearly psychiatric but may initially present to the paediatrician with, for example, amenorrhoea. In some cases such children may need to be managed on the paediatric ward because of their physical health needs, before transfer to either in-patient or out-patient psychiatric treatment. Children with psychotic symptoms may also need to have a brief stay on the paediatric ward as part of an assessment for underlying organic disorder.

Finally, all liaison child and adolescent psychiatrists will have to deal with young people who have taken overdoses or made other attempts at deliberate self-harm. A full discussion of the management of such children is outside the scope of this article.

Management of physical disease

The child and adolescent psychiatrist also has a major role to play in many cases where there is no psychiatric disorder. Admission to hospital is a stressful experience for child and family. Repeated hospital admissions may increase the likelihood of psychiatric disorder (Quinton & Rutter, 1976). Part of the liaison role includes working with ward staff to reduce stresses of hospitalisation. Considerable research has taken place on this subject, usually in relation to brief elective surgery. Interventions have included reading and other audio-visual material, traditional education, play, art therapy, and counselling. Although there have been efforts to evaluate some of this work, much of it has been methodologically flawed and, in particular, has failed to take into account children's developmental status (Eiser, 1984). Nevertheless, most studies show that any attempt to improve communication between hospital and family has some beneficial effect.

Liaison staff also have a role to play in the management of children who are in pain, who are anxious about painful and/or frightening procedures (sometimes to the point of non-compliance), and who are experiencing unpleasant side-effects. Hypnosis, behavioural techniques, procedural preparation, biofeedback and counselling (Dongen-

Melman & Sanders-Woudstra, 1986) have all been used successfully in attempts to reduce the anxiety, pain and discomfort associated with investigative techniques and treatment.

Children who have suffered severe trauma or who have life-threatening or terminal illness have particular needs, as do their families and the staff that care for them. Psychiatric staff may have to offer a wide range of psychological and other treatments including supportive counselling for parents, individual therapy for children, family therapy, support groups for staff, and so on. Working with ward staff, it may be necessary to support parents in telling children of their diagnoses and in preparatory grief work (see Black, 1994 for a fuller review of this area).

Child development

Before discussing models of service provision it is important to discuss briefly the importance of developmental factors with specific relevance to liaison work. Children are not just smaller versions of adults. Both their physical and psychological characteristics show qualitative as well as quantitative differences from adults. Likewise, children's understanding of illness is markedly different from adults and progresses through a number of stages, from believing that all illness comes about as a result of badness or magic, through contamination and contagion theories, to a more adult view of causation (Bibace & Walsh, 1980; Eiser, 1984). A knowledge of these stages (which relate to Piagetian ideas of cognitive development) is essential if clinicians are to communicate effectively with children. However, it is also clear that children's experiences of illness modify their understanding of it, and that simple stage theories of cognitive development are insufficient to explain children's thinking about illness. Unfortunately, there is some evidence that paediatricians may not be very good at predicting children's understanding (Perrin & Perrin, 1983).

Medical jargon, which can be confusing for adults, is a potent cause of confusion for children whose language and speech is at a different developmental level, and who may have their own vocabulary for body parts and functions which needs to be elicited to enable effective communication (McDonald *et al*, 1985).

One of the tasks of the liaison psychiatrist is to ensure that children's attachment needs are recognised and that communication is in a form that takes account of their language and cognitive development.

Service provision

Different models of liaison services exist in different centres, depending on the resources available (Leslie, 1992). Often the liaison arrangements are quite informal, relying on personal contacts between paediatricians and child and adolescent psychiatrists, with little awareness of the cost in financial terms or sessional time. In future, all liaison services will need to be costed and evaluated, especially if the child mental health and paediatric services are provided by different NHS trusts (White & Dickinson, 1993).

Despite an increasing awareness of the need for liaison services, there are a number of potential barriers to liaison work. Paediatricians have a different working time-scale from child and adolescent psychiatrists. In a mental health service, an urgent case is one that has to be seen within the week; in paediatrics, an urgent case needs to be seen within the hour. Therefore, paediatricians expect a rapid response to a referral that they perceive as urgent and, especially in the early stages of setting up a service, it may be sensible to go along with this as much as possible. Since the child may only be on the ward for a few days, quick and practical responses may be the only way of starting up an effective working relationship. It is important, though, to educate paediatricians about the impossibility of sorting out complex psychosocial problems within a few days, and the need for time, patience and reflection about problems.

Paediatricians are often directive; they tell families what to do and families usually comply. When a family is instructed to "see a child psychiatrist" they attend the appointment, but may not understand why they have been referred. Child and adolescent psychiatrists usually prefer families who want to be seen; often therapy is concerned with empowering families to help themselves by encouraging self-efficacy. These two models can clash and lead to misunderstandings and even conflict. It is important, therefore, with every liaison referral to establish the paediatrician's expectations of the level of collaboration between professionals, the outcome of the referral (direct work with the family, consultation, etc.) and the amount of responsibility the family, the paediatrician, and the child psychiatrist will take (Sturge, 1989). This can be especially complex and difficult with tertiary referrals to specialist centres, where the need to include paediatricians and psychiatrists from the referring area adds further complications.

Both paediatrics and child and adolescent psychiatry have their own jargon – it is important

to recognise this and to establish a common language for communication with each other and with patients. For instance, the use of ICD diagnoses to label patients, without also suggesting practical solutions to problems, is usually unhelpful (Lask, 1994). Child and adolescent psychiatrists need to be informed about paediatric practices and to be able to 'translate' them out of medical jargon.

Despite all these potential areas of conflict and misunderstanding, if there is a willingness from both sides to work together and to overcome some of these problems, liaison work can be very rewarding. Paediatricians and child psychiatrists need to spend time together to develop proactive as well as reactive services, and to learn to respect, tolerate and value each others' differences.

When considering the components of an ideal liaison service (see Box 4), it is helpful to bear in mind Rothenburg's (1979) advice to "be available, be practical and be understandable".

An emergency service is mandatory (Leslie, 1992), and if nothing else, provision must be made for rapid response to genuinely urgent referrals. However, the ideal service will also set up opportunities for more proactive work such as psychosocial ward rounds, regular consultation about cases, and joint clinics, as well as taking on direct referrals. Psychosocial ward rounds may be ward-based, or be based round a paediatric team. They should include all professions involved in the care of the children concerned and should meet at least weekly if at all possible.

Box 4. Components of an ideal liaison service

1. **Clinical:**
 - emergency service
 - psychosocial ward rounds
 - consultation on individual cases or groups of cases
 - joint work with paediatricians or others
 - direct referrals
2. **Staff support**
3. **Teaching:**
 - medical undergraduates and post-graduates
 - nurses and other non-medical professionals
 - joint meetings, seminars and study days
4. **Research:**
 - joint research meetings
 - collaborative research

Teaching is another important aspect of a liaison service. With the General Medical Council's (1993) increasing emphasis on psychological aspects of disease, the liaison service can become an important component of the undergraduate medical curriculum, as well as providing opportunities for training of junior paediatric staff, nurses and other non-medical professionals. It should not be forgotten that the child and adolescent psychiatrist also has a lot to learn from such encounters. Joint meetings, seminars and study days are useful ways of educating, but are also ideal opportunities to share ideas and improve communication between the different disciplines. A liaison service also has many opportunities for collaborative research and joint research meetings; again, these should ideally be multidisciplinary.

Ultimately, however, the success or failure of the liaison service is likely to rest on the paediatric perception of its clinical efficacy. If the child and adolescent psychiatrist is not seen as providing a useful service for children, their families and the paediatric team then opportunities for teaching, research and other activities will never develop. Graham (1984) sums up succinctly what minimum standards need to be met.

"He [the paediatrician] cannot expect all or even perhaps most patients he refers to achieve freedom from symptoms but he has a right to expect this will occur in some, with convincing evidence too that it was the psychiatric intervention that made the difference. In other cases he can expect that the psychiatric team will be perceived in a positive light, even if the child remains a problem. Regrettably, he can be sure that in a substantial number of cases the family will fail to make the journey from one meaning of their predicament to another, even with the best possible help available. He is more likely to be convinced of the utility of psychiatric intervention if he refers at least some cases in which time and the family attitudes seem to be on the child's side."

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- d are ten times more likely to have psychiatric disorder if their illness involves the central nervous system
- e are more likely, as adults, to be diagnosed as having a personality disorder

- 2 Which of the following statements are true?
- a chronic illness affects approximately 20% of the child population
- b behavioural disturbance is commoner in children attending general practices than in those attending surgical out-patients
- c recurrent abdominal pain has been found in approximately 25% of normal six-year-olds
- d conversion disorders are rare before the age of five
- e children diagnosed as having a chronic illness before the age of five are more likely to have psychosomatic symptoms in adult life
- 3 Children are less likely to adapt well to chronic illness if:
- a they have a diagnosis of juvenile chronic arthritis
- b they have a life-threatening disease
- c their parents are unhappy with the information they have received from their doctors
- d their parents have good conflict resolution skills
- e they have an illness with a predictable course

Multiple choice questions

- 1 Children with chronic physical illness:
- a are 2–3 times more likely to have psychiatric disorder
- b are more likely to have divorced parents
- c are more likely to have clinically depressed mothers

MCQ answers

1		2		3	
a	T	a	T	a	F
b	F	b	F	b	T
c	T	c	T	c	T
d	F	d	T	d	F
e	F	e	F	e	F