British Journal of Psychiatry (1994), **164**, 8–10

Editorial

Chronic Physical Illness and Emotional Disorder in Childhood

Where the brain's not involved, there may still be problems

M. E. GARRALDA

With better methods of treating childhood chronic illness and improved survival rates, more emphasis is being put on the effects of illness on the child and family.

About 5% of children in Western countries have persistent or recurrent handicapping physical disorders (Rutter *et al*, 1970; McAnarney, 1985; Pless & Nolan, 1991), the most common problems being asthma, eczema and epilepsy. Whether chronic physical illness affects the quality of child and family life has been investigated by surveys of psychiatric disturbance in such families. Results have seemed inconsistent, but it is possible to draw general conclusions when due note is taken of type of illness studied and the methods of sampling and measurements used. These will be considered here. Other aspects of the child's emotional and social adjustment (i.e. self-esteem, peer relations, educational progress) (McAnarney, 1985; Eiser, 1990) are not discussed in this editorial.

When assessing psychiatric adjustment, a commonly used research strategy is to compare children with different physical problems. Breslau (1990) has summarised the evidence from epidemiological surveys, and has shown that any increase in psychiatric risk for children with chronic physical illness is, to a large extent, accounted for by disorders involving the brain (e.g. epilepsy). However, epidemiological studies have surveyed children with disorders of differing severity and at different stages of illness. This should be considered before concluding that conditions not involving the brain have little effect on psychiatric health.

Stage of illness

The treatment of chronic illness is often punctuated by deteriorations which may involve more medical contacts, hospital admissions, family disruption, as well as distress and discomfort for the child and the family. Surveys that have examined child psychiatric adjustment in relation to temporary stressful stages of the illness have documented a deterioration in psychiatric status at times such as when diabetes is first diagnosed, at the critical time of starting dialysis for children with chronic renal failure, or after transfer to adult units of youngsters with cystic fibrosis (Kovacs *et al*, 1985; Wass *et al*, 1977; Shaw, 1991). Transient adjustment reactions may be the most common type of psychiatric disorder in chronically ill children and are likely to account for the markedly increased total childhood morbidity in survivors of end-stage chronic renal failure when compared with healthy matched controls (Morton *et al*, 1994).

Severity of illness

There is no simple answer to the question of whether severity of the physical illness influences psychiatric risk. Severity may be measured in very different ways, from the use of single biological measures, which may be only modest indicators of symptom severity, to measures of global handicap, which may fall into the tautological trap of being a reflection of psychiatric adaptation to illness.

The balance of evidence generally favours a link between severity and psychiatric adjustment in the more severely affected children with problems such as asthma, eczema, diabetes, and chronic renal failure (Garralda *et al*, 1988; Pless & Nolan, 1991; Daud *et al*, 1994). However, some surveys have found more problems in the less severely affected children (Pless & Nolan, 1991). This apparent discrepancy may be related to the sensitivity of the methods used to measure psychiatric adjustment and the setting (whether at home or in school) in which this disturbance is manifested.

Behavioural questionnaires have proved popular measures of psychiatric disturbance in ill children, but they are far less flexible than interviews to assess the severity of psychiatric symptoms and any resulting handicap. In many cases questionnaires will identify minor problems in psychiatric adjustment not amounting to psychiatric disturbance. Conversely, exclusive reliance on interviews and the assessment of psychiatric disorder may miss definite – though minor – psychological changes in the children.

The Manchester study of children with end-stage chronic renal failure used both psychiatric interviews and behavioural questionnaires, and multiple informants, to assess psychiatric adjustment. It documented slightly higher rates of psychiatric disorder in the more severely affected children on hospital haemodialysis

than among healthy matched controls. However, the less severely affected children, still not requiring dialysis, showed more minor psychiatric problems (falling short of disorders) than healthy controls. It was, moreover, striking that, as in previous reports of children with rheumatoid arthritis (McAnarney *et al*, 1974), an excess of psychological (mainly mood-related) problems in school was reported only among the less ill children. This was probably a function of teachers being universally aware of the illness and making allowances for children on haemodialysis but not for ill children with less obvious problems.

These findings suggest that handicapping psychiatric disturbance is slightly increased in children suffering severe conditions that do not involve the brain. Much of the increased risk for psychiatric symptoms found in children with chronic physical illness will be accounted for by minor problems in psychiatric adjustment, varyingly manifested in school or at home and by adjustment reactions at times of stress. These problems may not have serious implications for adult adjustment, since psychiatric morbidity in adult survivors of chronic illness has been shown to be comparable to that in healthy matched controls (Kokkonen & Kokkonen, 1993; Morton *et al*, 1993).

Emotional symptoms and chronic physical illness

Children with non-neurological physical illnesses are particularly prone to emotional symptoms and eating anomalies, rather than antisocial behaviour (Rutter *et al*, 1970; Pearson *et al*, 1991). While the eating anomalies may be explained by poor appetite and heightened maternal concern, especially in pre-school children (Daud *et al*, 1994), the specificity of the relationship with emotional disorders merits consideration.

Physical illness in the child can generate family and social changes known to be risk factors for the development of childhood emotional disorders. These changes include mood disorders in parents, possibly overinvolved, overprotective parenting, life stresses, and general adversity (Reynolds *et al*, 1988).

The reasons why many ill children develop only minor as opposed to frank emotional disorders may be partly related to the comparably lesser severity and stability of these stressors in the families of ill children than in those who develop emotional disorders; increased rates of minor psychiatric morbidity are reported in parents of ill children, but these can be reversed after the child's physical state has improved (Reynolds *et al*, 1991). Protective and involved parenting may be psychologically adaptive for children under stress and with special development needs. Also, there is evidence that the child's temperament is an important risk factor for emotional disorders (Biederman *et al*, 1990), the lack of which could have a buffering effect to the stress responses of ill children.

Protective factors

The good overall adjustment in most of these children may seem surprising. It seems highly plausible that illness mobilises factors which are psychologically protective (Eiser, 1990): chronic illness in the child enhances supports in a number of social areas (Reynolds *et al*, 1988). In some surveys as many parents report that the child's illness results in greater support as report increased stress for their marriage, and marital breakdown is, overall, not increased (Sabbeth & Leventhal, 1984). Chronic illness may lead to heightened maternal empathy and sympathy towards the child, and in young children it does not appear to affect the security of parent–child attachments in the absence of repeated potentially stressful separations (Daud *et al*, 1994). Moreover, distressing experiences, if adequately handled, may promote, or at any rate not adversely affect, coping. This is suggested by findings that in older school-children with chronic illness, the number of hospital admissions is not associated with the child's psychiatric adjustment (Garralda *et al*, 1988).

Future work

In taking further the study of the vicissitudes of psychiatric adjustment in children with different chronic physical illnesses, it seems important that multiple measures and informants are used to assess different levels of psychiatric dysfunction, taking into consideration the nature, stage and severity of illness, and providing precise description of associated stresses and of protective factors in the child, family, and medical units. Further thought needs to be given to what are helpful strategies to reduce emotional symptoms and adjustment reactions at times of stress, and to reduce the risk of psychiatric disorder in the more severely affected children. Given the intertwined nature of such psychiatric and physical problems (Garralda *et al*, 1988; Morton *et al*, 1993), it is also important to consider the types of psychiatric liaison schemes which optimise psychiatric intervention for disturbed ill children.

References

BIEDERMAN, J., ROSENBAUM, J. F., HIRSHFIELD, D. R., *et al* (1990) Psychiatric correlates of behavioral inhibition in young children of parents with and without psychiatric disorders. *Archives of General Psychiatry*, 47, 21–26.

BRESLAU, N. (1990) Chronic physical illness. In *Handbook of Studies on Child Psychiatry* (eds B. J. Tonge, G. Burrows & J. S. Werry). Amsterdam: Elsevier Science.

DAUD, L. R., GARRALDA, M. E. & DAVID, T. J. (1994) Psychosocial adjustment in pre-school children with atopic dermatitis. *Archives of Disease in Childhood* (in press).

EISER, C. (1990) *Chronic Illness Disease: An Introduction to Psychological Theory and Research*. Cambridge: Cambridge University Press.

GARRALDA, M. E., JAMESON, R. A., REYNOLDS, J. M., *et al* (1988) Psychiatric adjustment in children with chronic renal failure. *Journal of Child Psychology and Psychiatry*, **29**, 79–90.

KOKKONEN, J. & KOKKONEN, E-R. (1993) Prevalence of mental disorders in young adults with chronic physical disease since childhood as identified by the Present State Examination and the CATEGO program. *Acta Psychiatrica Scandinavica*, **87**, 239–243.

KOVACS, M., FEINBERG, T. L., PAULAUSKAS, S., *et al* (1985) Initial coping responses and psychosocial characteristics of children with insulin-dependent diabetes mellitus. *Journal of Pediatrics*, **106**, 827–834.

MCANARNEY, E. R. (1985) A challenge for handicapped and chronically ill adolescents. *Journal of Adolescent Health Care*, **6**, 90–101.

———, PLESS, I. B., SATTERTHWAITE, B., *et al* (1974) Psychological problems of children with chronic juvenile arthritis. *Pediatrics*, **53**, 523–528.

MORTON, M. J. S., REYNOLDS, J., GARRALDA, M. E., *et al* (1994) Psychiatric adjustment in end-stage renal disease: a follow-up study of former paediatric patients. *Journal of Psychosomatic Research* (in press).

PEARSON, D. A., PUMARIEGA, A. J. & SEILHEIMER, D. K. (1991) The development of psychiatric symptomatology in patients with cystic fibrosis. *Journal of the American Academy of Child and Adolescent Psychiatry*, **30**, 290–297.

PLESS, I. B. & NOLAN, T. (1991) Revision, replication and neglect – research on maladjustment in chronic illness. *Journal of Child Psychology and Psychiatry*, **22**, 347–365.

REYNOLDS, J. M., GARRALDA, M. E., JAMESON, R. A., *et al* (1988) How parents and families cope with chronic renal failure. *Archives of Disease in Childhood*, **63**, 821–826.

———, ———, POSTLETHWAITE, R., *et al* (1991) Changes in psychosocial adjustment following renal transplantation. *Archives of Disease in Childhood*, **66**, 508–513.

RUTTER, M., TIZARD, J. & WHITMORE, K. (1970) *Education, Health and Behaviour*. London: Longman.

SABBETH, B. F. & LEVENTHAL, J. M. (1984) Marital adjustment to chronic childhood illness: a critique of the literature. *Pediatrics*, **73**, 762–768.

SHAW, J. (1991) *Psychosocial Adjustment in Patients with Cystic Fibrosis*. MPhil, University of Manchester.

WASS, V. J., BARRATT, T. M., HOWARTH, R. V., *et al* (1977) Home dialysis in children. *Lancet*, *i*, 242–246.

M. E. Garralda, MD, MPhil, FRCPsych, DPM, *Professor of Child and Adolescent Psychiatry, St Mary's Hospital Medical School, Horace Joules Hall, Central Middlesex Hospital, London NW10 7NS*