

The Context of Childhood Depression The Newcastle Childhood Depression Project

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This paper examines the family background, premorbid personality traits and adverse life events preceding childhood depression. The non-depressed group proved more likely to have experienced pre-school bereavement and familial disturbance, and to come from the more deprived background; there was also an excess of premorbid anxiety and hysterical personality traits in this group. School phobia and premorbid obsessional traits were associated with the depressed group. Although there was an association between depression and the total number of adverse life events, this was more substantial when the perceived impact of the events was taken into account. Of the individual classes of life event, only illness and a change in social relationships were associated specifically with depression.

Previous research in the adult sphere has demonstrated relationships between certain events and depression, especially events judged as having a strong negative impact, carrying a degree of threat, and involving permanent loss or separation (Brown & Harris, 1978; Paykel *et al*, 1980). More recently, Brown *et al* (1986) have taken this a stage further and proposed a persuasive and sophisticated theory which attempts to link the highly complex chain of adverse psychological life experiences with later depression. They have suggested a three-factor model giving emphasis to certain *current provoking agents* which determine when an episode of depression takes place, the most significant being the severe events associated with an important loss or disappointment; other life events play a part but appear somewhat less influential. In adulthood the likelihood of these experiences resulting in depression in women is subject to *vulnerability factors* such as a lack of social support, the lack of an intimate tie with a husband, and the presence in the home of more than two children aged under 14 years (Brown & Harris, 1978). The third factor of symptom formation influences how the depression expresses itself.

Lower social class is associated with a greater number of provoking agents and it is thought that this allows vulnerability factors to act more powerfully than in a middle class population. Brown and Harris do not go so far as to suggest that this might constitute a fourth 'facilitating' factor relating to both the vulnerability and provoking agents, nor that there may be further factors as yet unidentified.

Much life event research has been criticised (Brown & Harris, 1978) on the grounds of faulty methods of collecting and recording life event data (Goodyer *et al*, 1985). Recent life events may be as much a consequence, as a cause, of illness but often

insufficient attention has been paid to determining the independence of such events from illness. In addition, questions arise about whether events should be weighted, but research suggests that unweighted and weighted life event scores perform equally (McFarlane *et al*, 1980; McFarlane, 1985).

Unlike Brown and his colleagues, others emphasise earlier experiences in general (Rutter, 1981). Further, in a review of stress correlates of depression in adults, Rutter (1986) notes that depressive disorders are commonly precipitated by stress events "perhaps especially those involving loss or breaking of important love relationships (Brown & Harris, 1978; Paykel, 1982) . . . also some preliminary evidence that the type of life events associated with depression may differ from those associated with anxiety states (Finlay-Jones & Brown, 1981)". He therefore suggests the potential utility of examining the associations of childhood depression with different kinds of stress events ensuring systematic comparison with non-depressive disorders. In this there are possible limitations - the first concerning the uncertainty of the extent or specificity of kinds of stresses associated with depression (Paykel, 1982); second, loss events do not necessarily have a specific outcome - they may lead to a range of disorders both of a somatic and psychic variety; and third, how far such stresses impinge directly on the child and how much they act indirectly through the parents and family. A further question is whether there are differences between different types of deprivation - in the adult field there is little evidence of such differences (Patrick *et al*, 1978). Finally, the magnitude of the correlations reported between life stress and psychological adjustment are usually in the order of 0.3 to 0.4, which suggests that such events or changes account for a relatively small

proportion of the variance of adjustment problems (Cohen, 1988).

In the child sphere, there is good evidence that psychiatric disorder is commonplace in the offspring of psychiatrically disturbed parents (Quinton & Rutter, 1985). Parental depression is an important precursor of child psychiatric disorder (Orvaschel, 1983; Weissman *et al.*, 1986); and a range of other family and social experiences are precursors of psychiatric disorders in childhood (Rutter, 1981). More specifically, prospective studies have provided evidence of a relationship between certain child psychiatric disorders and preceding major life events, especially those with a negative psychological impact (Goodyer *et al.*, 1985; Steinhausen & Radtke, 1986). Three such key life events have been highlighted – parental divorce, the birth of a sibling and the hospital admission of a child (Isherwood *et al.*, 1982).

Of relevance to the current research is the relationship between life events and subsequent depression (Hudgens, 1974; Johnson & McCutcheon, 1980; Swearingen & Cohen, 1985*a,b*). Previous studies conducted in this department (Goodyer *et al.*, 1985, 1986, 1987) compared children with a mood disorder with matched controls from the community. They found that life events preceded mood disorder in childhood.

Hence the psychosocial context of youthful subjects is crucially important and this research gives an opportunity to seek, and perhaps identify, specific provoking agents, and also potential vulnerability and facilitating factors in relation to childhood depression.

Method

This study uses a design which allows a comparison of child and adolescent patients with depression with a combined group of patients with other child psychiatric syndromes (Kolvin *et al.*, 1991). Depression was diagnosed in two ways: first, clinically using a modified Standardised Psychiatric Interview (Goldberg *et al.*, 1970) of the child; and second, by categorisation into syndromes by the cluster analysis of items from an intensive interview of the child, using the Kiddie-SADS schedule. The interviewer of the mother was blind to both the clinical diagnosis and also to the specific research diagnosis based on an independent interview of the child alone.

The clinical method gave broadly equal numbers of depressed and non-depressed (but otherwise disturbed) children. Cluster analysis gave rise to two main syndromes of depression, represented by endogenous depression and negative cognitions, as well as a residual, maladjusted group. The term 'endogenous' was used to conform with its usage by Puig-Antich and his colleagues (Chambers *et al.*, 1985; Ryan *et al.*, 1987) and identifies a group whose symptoms indicated a biological depression. The mixed,

maladjusted group was typical of the patients being referred to our University child psychiatric clinic and included an element of antisocial behaviour in one-third, albeit not necessarily as their main disorder (Kolvin *et al.*, 1991). The numbers in each group were as follows:

- (a) endogenous depression ($n=30$; 32%)
- (b) depression with negative cognition ($n=22$; 23%)
- (c) mixed, maladjusted ($n=43$; 45%)

Onset of illness was defined reasonably well for the population under scrutiny as previously shown (Goodyer, 1987). Life events and the family, social and psychological background of the three groups were compared.

The child's early development, personal, family and social background and premorbid personality characteristics were assessed. The last included characteristics rated on sets of ordinal scales, previously developed for a study of school phobia, with summation to give composite scores reflecting personality traits (Berney *et al.*, 1981; Kolvin *et al.*, 1984). In addition to a clinical interview, the mothers completed the Leeds self-rating questionnaire for the assessment of anxiety and depression (Snaith *et al.*, 1976).

The method used to gather information about life-events and for recording the onset of illness broadly followed that of previous research in the Newcastle department (Goodyer *et al.*, 1985, 1986, 1987) but with some modifications. The life-event schedule, designed for a school-age population, was administered to the mother by a trained interviewer. It had been established previously that interviewers could collect life-event information in a reliable manner, and date the onset of illness. The schedule contains appropriate probes about clearly defined events with operational definitions, and these were grouped into 11 classes. The interviewer used a general probe to inquire about each class of event, and then specifically about each event within that class. Questions were restricted to events occurring in the twelve months before onset of the disorder, this being defined as major signs and symptoms not previously present and/or the change in behaviour which had led to referral.

As staff resources did not allow the use of the full procedure, we varied the format both for 'independency' and for 'objective negative impact' (Paykel, 1983; Goodyer *et al.*, 1985). Firstly, the trained interviewers were asked to ensure that they only recorded those life events which clearly preceded onset, and thus were independent of illness. Secondly, the number of events surveyed was restricted by excluding those which reflected an impact which was likely to be positive and by combining certain events. Thirdly, as we had previously reported substantial agreement between pairs of raters prior to discussions about consensus (Goodyer *et al.*, 1985), it was decided that on this occasion the interviewer should simply rate the degree of impact without reference to consensus techniques. The scale was condensed as follows: (1) no event; (2) an event with little in the way of objective negative impact; (3) an event with moderate negative impact; (4) an event with marked or severe impact.

This allowed events to be classified in three ways – first, by their mere presence; second, by the degree of their negative impact; and, third, by their general characteristics. We focused on 11 classes of event: family discord,

Table 1
The social context, maternal state, and adverse experiences of depressed and non-depressed children¹

	Clinical diagnosis				Cluster 'diagnoses' (Subsidiary classification)							
	Not depressed (maladjusted)		Depressed group		Not depressed (maladjusted)		Depressed group		Endogenous depression		Negative cognition	
	A	B	C	D	E	F						
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
<i>Social context</i>												
Social Class IV & V	19	(54)	20	(49)	19	(61)	20	(44)	14	(56)	6	(30)*
Unemployment (>6 months)	14	(38)	8	(21)	15	(46)	7	(16)**	3	(13)*	4	(21)
Attended grammar school (M) ²	10	(23)	19	(42)*	6	(16)	23	(46)**	11	(38)*	12	(57)**
Attended grammar school (F) ²	9	(23)	16	(38)	4	(11)	21	(46)**	10	(39)*	11	(55)**
Mean duration of marriage (yrs)	15.65		16.23		14.32		17.23*		17.45*		16.89	
<i>Maternal state</i>												
Current psychiatric disturbance	25	(56)	14	(32)*	24	(60)	15	(31)**	8	(28)**	7	(35)
Worries substantially	16	(36)	10	(23)	18	(45)	8	(17)*	5	(18)	3	(15)
Non-situational panic	28	(62)	24	(55)	27	(68)	27	(68)	12	(42)*	13	(65)
Depressive mood	9	(20)	9	(21)	10	(25)	8	(16)	5	(17)	3	(15)
Sleep disturbance	18	(40)	12	(27)	19	(48)	11	(22)*	8	(28)	3	(15)
M's worries about her health ²	24	(53)	20	(46)	25	(63)	19	(39)*	12	(41)	7	(35)*
M's worries about F's health ²	21	(58)	13	(34)*	19	(59)	15	(36)*	9	(38)	6	(33)
General Depression (Leeds)	15	(36)	14	(35)	17	(46)	12	(27)	11	(39)	1	(6)**
General Anxiety (Leeds)	23	(51)	13	(30)*	24	(60)	12	(25)**	8	(28)**	4	(21)**
<i>Adverse experiences</i>												
Abnormal delivery	1	(2)	8	(18)*	3	(8)	6	(13)	2	(7)	4	(21)
Accidents - ever	28	(62)	22	(50)	29	(73)	21	(43)**	13	(44)*	8	(40)*
(since 2 years old)	26	(58)	20	(46)	27	(68)	19	(39)**	11	(38)*	8	(40)*
<i>Bereavement</i>												
pre-school years	14	(30)	5	(11)*	14	(34)	5	(10)**	2	(7)**	3	(14)
(loss of GP pre-school) ⁴	10	(22)	3	(7)*	10	(24)	3	(6)*	2	(7)	1	(5)
school years	20	(44)	25	(57)	16	(39)	29	(59)	18	(64)*	11	(52)
<i>School problems</i>												
peers	17	(38)	20	(44)	12	(30)	25	(50)	17	(59)*	8	(38)
non-attendance	18	(39)	25	(56)	12	(29)	31	(62)**	19	(66)**	12	(57)*

1. Comparisons are with the relevant non-depressed group (i.e. B vs A; D, E, & F vs C).

2. M=mother.

3. F=father.

4. GP=grandparent.

* $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$.

accidents, illness; school, entrance (e.g. pregnancy), exit (bereavements), threatened exit (departures from home), family mobility (migration), financial, changes in social relationships, and legal. Event scores for the 11 classes were summed. To ensure that each of these classes had an equal weighting, the recording of an event within a class led to that class being ascribed a score of one or zero. In a similar manner the negative impact of events within a class was rated on the four-point scale described above. For the purpose of analysis, the negative impact was divided into two broad groups, namely 'marked or severe' versus 'little or none' - the former being described as substantial impact. Life event data were available on 88 children. Summation of event scores and impact scores gave the total number of classes in which there had been an event and in how many there had been substantial impact.

Results

Table 1 shows the factors of social context, maternal mental state and adverse experiences, and their prevalence in depressed and non-depressed children.

Depressed children tended to come from higher socio-economic strata (managerial or skilled) than the non-depressed, but the differences only proved significant for the negative cognition subgroup. More impressive were the differences in the educational background of the parents of depressed youths: both mothers and fathers proved significantly more likely to have been to the equivalent of grammar school. Consistent with this is the finding that prolonged unemployment of the bread-winner (more than six months duration) was associated with the non-depressed group although parental chronic physical ill health did not

Table 2
Adverse life events

Class of event	Clinical diagnosis				Cluster 'diagnoses'							
	Not depressed (maladjusted)		Depressed group		Not depressed (maladjusted)		Depressed group		(Subsidiary classification)			
	A		B		C		D		E		F	
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)
Illness events												
occurrence	19	(44)	27	(60)	17	(45)	29	(58)	18	(62)	11	(52)
impact	11	(26)	19	(42)	9	(24)	21	(42)	15	(52)*	6	(29)
Exit events												
occurrence	9	(21)	15	(33)	9	(24)	15	(30)	7	(24)	8	(38)
impact	5	(12)	11	(24)	5	(13)	11	(22)	3	(10)	8	(38)*
School events												
occurrence	39	(91)	42	(93)	35	(92)	46	(92)	27	(93)	19	(91)
impact	15	(35)	20	(44)	15	(40)	20	(40)	13	(45)	7	(33)
Family events												
occurrence	27	(63)	29	(64)	26	(68)	30	(60)	21	(72)	9	(43)
impact	15	(35)	16	(36)	14	(37)	17	(34)	12	(41)	5	(24)
Financial events												
occurrence	19	(44)	16	(36)	16	(42)	19	(38)	12	(41)	7	(33)
impact	6	(14)	5	(11)	4	(11)	7	(14)	6	(21)	1	(5)
Social relationship events												
occurrence	11	(26)	25	(56)**	9	(24)	29	(58)**	17	(59)**	10	(58)
impact	8	(19)	16	(36)	4	(11)	20	(40)**	13	(45)**	7	(33)
Summed scores		Mean		Mean		Mean		Mean		Mean		Mean
Occurrence scores		3.79		4.62		3.97		4.40		4.65		4.05
Impact scores		1.74		2.47		1.63		2.48*		2.79**		2.05
Number of subjects		43		45		38		50		29		21

Comparisons are with the relevant non-depressed group (i.e. B vs A; D, E, & F vs C).

* $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$.

differ significantly between the main groups. The parents of depressed children had longer marriages than those of non-depressed children.

The mothers of non-depressed children showed a greater frequency of psychiatric symptoms, concerns or worries than those of the depressed. Similar patterns were obtained when the diagnostic groups derived from cluster analysis were compared. Further, on the Leeds questionnaire, the mothers of the non-depressed children had higher anxiety scores than the mothers with depressed offspring ($P < 0.05$). Depressive symptoms were present in about one-fifth of the mothers, although a positive family history of psychiatric disturbance was more common, being present in 49% of first-degree relatives of the children taken as a whole: depression occurred in 37% of the first-degree relatives. There were no significant differences between the depressed and non-depressed groups.

Of other adverse experiences, an abnormal delivery at birth, though not common, was significantly more frequent in the clinically-defined depressed group of children. In contrast to this finding, the occurrence of memorable accidents was more frequent in the non-depressed group; largely reflecting accidents occurring after the age of two years.

Bereavement in the pre-school years was largely a characteristic of the non-depressed group, being experienced by about one in three of the non-depressed but by only one

in ten of the depressed ($P < 0.05$). Of those bereft, two-thirds had lost a grandparent; this was significantly more frequent in the non-depressed group. Only two children lost parents; one of whom became depressed. There is an important reversal of this pattern in the school years, with an increase in the number of bereavements associated with depression. Bereavement was experienced by about 40% of the non-depressed group but by about 60% of the depressed. Again, this usually represented the loss of a grandparent. Five children lost parents, two their mothers and three their fathers. All of these developed childhood depression, of the endogenous subtype in three and in association with negative cognitions in two.

A substantial proportion of the non-depressed group had definite problems with their peers at school (30–38%), but an even greater proportion of the depressed children had such problems (44–50%), this being particularly high in the subgroup with endogenous depression (59%). Depression was associated with higher rates of absenteeism, here defined as more than a fortnight's absence from school within the previous three months.

Life events

The data in Table 2 are presented as the number and proportion of subjects who had experienced adverse life

Table 3
Premorbid personality

	Clinical diagnosis				Cluster 'diagnoses'							
	Not depressed (maladjusted)		Depressed group		Not depressed (maladjusted)		Depressed group		(Subsidiary classification)			
	A	B	C	D	E	F	Endogenous depression	Negative cognition				
	n	(%)	n	(%)	n	(%)	n	(%)	n	(%)		
A. Personality traits												
Lack of confidence	20	(44)	10	(23)*	14	(34)	16	(33)	9	(31)	7	(35)
Concern with cleanliness	4	(9)	14	(32)**	4	(10)	14	(29)*	9	(31)*	5	(25)
Perfectionistic	9	(20)	17	(39)*	8	(20)	18	(37)	13	(45)*	5	(25)
Indecision	21	(46)	11	(25)*	17	(42)	15	(31)	8	(28)	7	(35)
Romancing	20	(44)	7	(16)**	19	(46)	8	(16)**	6	(21)*	2	(10)**
Exploitation of feelings	17	(37)	8	(18)*	16	(39)	9	(18)*	6	(21)	3	(15)
	Mean		Mean		Mean		Mean		Mean		Mean	
B. Personality types												
Anxious		11.09		9.25*		10.20		10.18		10.14		10.25
Hysterical		17.65		14.34**		17.20		15.06		15.17		14.90

Comparisons are with the relevant non-depressed group (i.e. B vs A; D, E, & F vs C).
* $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$.

events, including those for whom there had been a substantial negative impact. The scores for the classes of events have been summed and presented as means.

There were few occasions when a class of event achieved significant differences between the diagnostic groups. Nevertheless, a greater proportion of the depressed group, whether diagnosed clinically or syndromically by cluster analysis, tended to encounter adverse life events – the exception being 'threatened exit' and 'contact with the law' which proved more common (but not significantly so) in the non-depressed group. However, in the sphere of social relationships – represented by a change in the child's acceptance by his peers – there was a widespread excess of events within the depressed group.

When the scores for the eleven classes of event were summed, the clinically depressed group had a higher mean score but the differences were marginal ($P = 0.05$). However, the mean impact scores were substantially higher in the depressed groups and subgroups but the differences were not always significant.

Although not shown in Table 2, exit events with a negative impact occurred significantly more frequently in the depressive cognitions subgroup ($P < 0.01$); in contrast, family events occurred more frequently in the endogenous subgroup ($P < 0.05$).

Premorbid personality

Unusual personality traits were found frequently (Table 3). Particularly common were marked obstinacy (present in 52%), impulsiveness (38%), attention-seeking behaviour (37%), and a marked degree of dependence either on close relatives (35%) or on a familiar environment (36%).

Obsessional traits were more frequent among the depressed group of children and particularly so in the

case of the endogenous subtype. In contrast, the non-depressed group were significantly more likely to show lack of confidence, to be indecisive, to be prone to embroider or make up stories, to hold unrealistic ambitions, and to exploit the feelings of others in order to obtain their desires.

Summation of the scores of similar traits gives measures of overall personality types. The non-depressed group had significantly higher mean scores for 'anxious' and 'hysterical' personality patterns: the depressed groups tended to have higher 'obsessional' personality pattern scores. There were no notable differences on measures for dependency and sociability.

Vulnerability factors

The data was reorganised to examine the independent and combined effects of vulnerability and provoking factors in relation to childhood depression. The picture obtained differs little whether depression is diagnosed clinically, or syndromically by cluster analysis and so only one set of data; that from syndromic diagnosis, is presented. Review of our data has revealed two possible 'vulnerability' factors – bereavement in the early school years, and the personality factor of perfectionism.

For life events, we have confined our analyses to two – social relationship events, and the summed negative impact score where we have selected a cut-off to represent 'high' and 'low' scores. Table 4 shows that the presence of a vulnerability factor or specified life event is associated with a higher rate of depression with almost equal proportions of the sample being depressed in the presence of either the vulnerability factor or the life event. The absence of both the vulnerability factor and the life event does not result in a great fall in the proportion of children developing depression, nor does the presence of both give rise to a substantial rise in the rate of depression.

Table 4
Rates of depression in clinic cases exposed to vulnerability factors,¹ life events² or both

	Absence or low score		Presence or high score		d.f.	G ² Attributed to parameter ³	P = <
	n	(%)	n	(%)			
Bereavement	20	47	29	66	1	4.71	0.05
Social relationship	23	44	26	74	1	9.28	0.01
Both	8	33	14	88			
Bereavement	20	47	29	66	1	3.50	NS
Impact of social relationship	30	47	19	83	1	9.64	0.01
Both	11	34	10	83			
Bereavement	20	47	29	66	1	4.03	0.05
Total impact	36	50	13	87	1	8.30	0.01
Both	14	40	7	100			
Perfectionism	31	50	18	72	1	2.44	NS
Social relationship	23	44	26	74	1	6.74	0.01
Both	16	40	11	85			
Perfectionism	31	50	18	72	1	1.17	NS
Impact of social relationship	30	47	19	83	1	7.04	0.01
Both	22	43	10	83			
Perfectionism	31	50	18	72	1	3.35	0.05
Total impact	37	51	12	86	1	6.18	0.05
Both	23	43	4	80			

1. Vulnerability factors: (i) Bereavement in the school years; (ii) Perfectionistic premorbid personality traits.
2. Provoking life events: (i) Social relationships; (ii) Total impact-summed impact score.
3. Separate effects of explanatory parameters on depression (log-linear analysis).

Log-linear analysis demonstrates the separate effects of the explanatory parameters on depression. It is evident that certain life events over the previous year have a significant separate impact. Although the provoking factors selected for analysis have widespread effects, neither 'loss over the school years' nor 'perfectionism' have widespread separate effects. Finally, while interactions were not found statistically, some combined effects appeared crucial. For instance, all seven of the clinic patients who were both exposed to bereavement and had a high total life-event impact score, were classified as depressed.

Discussion

Surprisingly, we found many of the features traditionally associated with adult depression occurred as commonly in other forms of child psychiatric disturbance. There were few substantial differences between the depressed and the non-depressed groups. Those differences that occur merit comment.

Social and family factors

The findings suggest an association between childhood depression and higher social class, long-standing marriage, better employment, and better parental education. However, a more plausible explanation is that these patterns merely highlight

the reverse associations with adverse social circumstances in the non-depressed group. The latter group, typical of the patients being referred to our university child psychiatric clinic, comprise an important element of antisocial behaviour (one-third of the non-depressed children have a diagnosable conduct disorder, but not necessarily as their main disorder (Kolvin *et al*, 1991)). However, because of comorbidity, this is also present to a lesser extent (about one-in-eight) in the depressed group, which is in keeping with the findings of others (Kaplan *et al*, 1984). Similarly the level of parental education for the depressed group is unusually high, particularly for the geographical area of Newcastle, which suggests that some of the differences are determined by referral effects.

More remarkable is the emphasis on factors associated with the non-depressed, psychiatric group. Thus, although there was a high level of maternal disturbance in both groups, the mothers of the non-depressed children, whether assessed by clinical interview or by self-rating questionnaire, had a higher frequency of affective symptoms, albeit as much anxious as depressed.

Youthful onset of depression has been associated with a high incidence of depression in relatives (Weissman *et al*, 1984). Although we expected and sought higher rates of depression in the families of

the depressed group, differences comparable to those obtained by Weissman and her colleagues (1984) could only be obtained by a population study. The background factors for the non-depressed group probably relate to social disadvantage in the community, reflecting the complex context they provide for the child's disturbance. Nevertheless, our clinic results emphasise that abnormal social circumstances are not specific to depression.

Premorbid personality traits

The association of childhood depression with obsessional traits suggests the possibility of a predisposition to depression.

Perinatal and other physical factors

The association of an abnormal delivery with childhood depression parallels the previously reported link between early cerebral insult and childhood depression (Kolvin *et al*, 1984), suggesting a circumscribed biological vulnerability.

The association of a higher incidence of accidents with maladjustment may well reflect the greater psychosocial stress in this group (Kolvin *et al*, 1991), and would be in keeping with the relatively higher occurrence of conduct disorder in this group (Kolvin *et al*, 1991).

Social, relational and school factors

Although both depressed and non-depressed patients experience difficulties with their peers, the depressed group are much more likely to absent themselves from school. Although an association of depression in childhood with school and peer difficulties has been described previously (Puig-Antich *et al*, 1985), this was found in comparison with normal controls. The current finding supports the more specific link between depression and school phobia suggested by previous findings (Kolvin *et al*, 1984; Berney *et al*, 1981).

Loss

It is noteworthy that bereavement in the pre-school era, usually represented by the loss of a grandparent, is significantly greater in the non-depressed group. Although early bereavement has traditionally been included in the possible origins of depression (Lloyd, 1980) our data suggests that the association may be less simple and not specific. On the other hand, later loss, occurring in the school years, is associated with the depressed group and is significantly more

frequent in the endogenous subtype. This calls into question the use of 'endogenous' – a more appropriate term might be 'biological'.

Life events

Few significant differences were found for the different classes of life event which precede the onset of childhood depression. The exception was events concerned with social relationships. Further, the individual impact of each of the other classes of events also did not suggest a strong specific relationship between recent life events and childhood depression. Even where associations do occur, the level of significance rarely extends beyond 5%.

The explanation probably lies in the nature of the groups being compared. Previous research compared children from a community sample for whom recent life events would have been relatively infrequent and randomly dispersed (Goodyer *et al*, 1985). In the current study the comparison is between subjects with diverse types of psychiatric disturbance and in these disorders, life events are likely to be common, even if the frequency varies between disorders.

Comparison of the cluster analysis syndromes showed that the endogenous depression group had a higher rate of negative impact events, but again these are seldom significant. On one occasion there is a hint of a specific relationship between the impact of an event and endogenous depression. For instance while half of those with an endogenous depression have an illness event with a negative impact, this only occurred in a quarter of the other two groups. Nevertheless, there are few other events with a negative impact that commonly precede endogenous depression or the depressive cognitions syndrome.

Our data suggest that prior environmental adversity, such as 'loss' or a recent change in the acceptance by peers, is likely to have important, powerful, but different influences for different types of childhood depression. Thus, while there are some significant associations between the impact of recent life events and sub-categories of depressive disorders, there are two reservations about making a definitive statement on causality (Goodyer *et al*, 1985).

First, there is the problem of ensuring that all events antedate symptoms (especially social acceptance by peers); and second, our data were collected retrospectively and the findings may be confounded by other factors that were not examined.

Our data give few hints about specificity. The low rates of individual events thwarted our endeavours to highlight specificity between events and different types of depression. Nevertheless, our findings suggest that family and school events may be

important in the mixed-maladjustment group, loss and social relational stresses in the depressive cognitions group, and illness, school, family and social relational stresses in the endogenous depression group.

Our sub-groups were too small for us to attempt to unravel the influences of age and sex. Previous work in this department (Goodyer *et al*, 1986) has demonstrated that, with few exceptions, neither substantially influences the association between life event and psychiatric disorder in childhood.

Finally, we need to understand the magnitude or extent of the association between recent life events and psychiatric disorder, to allow an estimate of the relative contribution of events with a negative impact – particularly whether such events are sufficient in themselves as aetiological influences (Goodyer *et al*, 1985). Previous work in this department reported 35% of all patients with a psychiatric disorder and 50% of those with a severe mood disorder had experienced a severe event in the 12 months prior to the onset of the symptoms. In this study, the rates obtained for the three main groups for an event with substantial impact were endogenous 48%, depressed cognitions 48%, and general maladjustment 34%. This confirms that events with a substantial impact do not appear to be necessary for the appearance of specific types of depression (Goodyer *et al*, 1985) nor, indeed, are they specific to childhood depression.

Our data demonstrate the importance of the distinction between the mere presence of recent life events and judgements of negative impact. For instance, the frequency of the class of illness events is high for all groups, but the frequency of negative impact is high only for the endogenous depression group.

The question arises whether it is possible to obtain clues or hints about vulnerability factors, current provoking agents in relation to depression in childhood, and facilitating factors.

Lower social class of the child's family does not appear to be associated with more in the way of current provoking agents in the population under scrutiny. However, as the depressive group is being compared with a non-depressed psychiatrically

disturbed group in which there is a moderate degree of anti-social behaviour, it may be that the lower social class of the comparison group is masking other associations (which might emerge when using a normal population control group).

The data were examined to identify vulnerability factors. Two possible factors emerged; the first being the personality trait of perfectionism and the second being bereavement in later childhood. Of the 11 different classes of life event, only social relational events, were closely associated with depression (Table 2). Almost equal proportions of the groups become depressed when analysed according to vulnerability agents or provoking factors. More important is whether the absence of either the postulated vulnerability factor or the provoking agent would produce lower rates of depression and the combination of both, higher rates. The proportions change only marginally in relation to these two extreme groups. The pattern was the same when this analysis was undertaken for loss and bereavement in the school years. This would support the notion that loss is an important precursor of depression in childhood but no more so than a perfectionistic premorbid personality or the occurrence of recent life events. Nor would the provoking factors appear to predispose the child to experience an impact in a higher proportion of events. Numbers are insufficient to determine whether the relationship between vulnerability and provoking agents is an additive or an interactional one.

Overall, although the pattern that emerges suggests a variety of environmental adversities are associated with childhood disturbance, relatively few are specifically linked with depression, let alone with a subtype of depression. However, the small size of the depressive subsample, as well as the high frequencies of all forms of disturbance surrounding the non-depressed group, may have obscured some important differences.

Our findings suggest that non-depressive and depressive disturbances in childhood have a number of common origins and that a better picture of the extent of parental psychiatric and psychosocial influences should be achieved by comparison with normal controls.

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