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## Sexually abused girls: patterns of psychopathology and exploration of risk factors

**Abstract** This paper studies the patterns of psychopathology in sexually abused girls. It also explores some environmental risk factors for psychopathology including abuse characteristics and environmental experiences. The data are derived from the baseline assessment of 81 sexually abused girls referred to the London Child Sexual Abuse Psychotherapy Outcome Study (collaborative Tavistock and Maudsley project). Data

about abuse were collected from the parent or foster parent using a standardised, semi-structured interview format. The girls' psychopathology was assessed using the Kiddie-SADS schedule. Widespread and serious psychopathology in sexually abused girls attending a psychotherapy clinic previously reported in a small-scale study was confirmed; so, too, was the extent of comorbidity and impairment of psychosocial functioning. Further, a significant association was found between children looked after away from home and high rates of Separation Anxiety Disorder. No such significant associations were found for Major Depressive Disorder nor impairment of functioning. Multivariate prediction analysis revealed that significant predictors of Major Depressive Disorder consisted of seriousness of abuse, the abuser

not being a parent figure, and the abuse not being recent; the only significant predictor of Separation Anxiety Disorder was that the abuser was not a parent figure; finally, impairment of general functioning was strongly predicted by the greater seriousness of abuse and also by the abuser/s not being a parent figure. Theoretical explanations advanced for the reported associations have a sense of face validity: that girls abused by strangers will be at risk of developing Separation Anxiety Disorders; that serious sexual abuse is followed by the development of a Major Depressive Disorder and a high level of impairment of social functioning.

**Key words** sexual abuse – severity – onset – perpetrator – psychiatric disorder

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### Introduction

There has been an impressive accumulation of knowledge regarding sexual abuse over the last decade. Kendall-Tackett et al. (1993) reviewed 45 studies and concluded that Post-Traumatic Stress Disorder and sexualised behaviour were experienced more commonly in sexually abused children than clinic controls. Symptoms did not occur uniformly across all age groups, and the question arises whether these differences represent de-

velopmental (stage-related) changes in response to sexual abuse at the time the children were victimised or at the time of assessment. Most reviews have found some evidence for the notions that (i) abuse by a 'parent figure', (ii) abuse that includes penetration and force over longer period of time, and (iii) abuse committed by multiple perpetrators relate to greater levels of distress (Browne and Finkelhor 1986; Beitchman et al. 1991; Kendall-Tackett et al. 1993). Other studies tend to question such a straightforward relationship pointing to a greater severity of depression in adolescence but anxiety

disorders in prepubertal children irrespective of the above-mentioned abuse parameters (Sansonnnet-Hayden et al. 1987).

However, Green (1993) stressed that most of the reviewed research was hampered by (i) a failure to use standardised or appropriate assessment instruments, (ii) a failure to measure severity of abuse, and (iii) a failure to examine differences relating to the closeness of relationship with the perpetrator. Further, some more recent longitudinal follow-up studies reported no association between characteristics of the abuse and greater level of impairment at follow-up, contrary to the evidence from studies examining the initial impact of abuse (Tebbutt et al. 1997).

Only a few studies focusing on the relationship between characteristics of the abuse itself and the severity of its impact on the child's functioning examined a large enough cohort of sexually abused children to employ multivariate analyses to unravel the independent contributions of different abuse parameters. Using logistic regression analysis, Mennen (1993) demonstrated a much greater likelihood that sexually abused girls would be in a higher distress group for depression if the sexual abuse involved penetration or if the perpetrator was a father figure. However, the data about emotional distress were derived from self-report questionnaires, but the information about the characteristics of abuse was collected only from the children's case files.

## Methods and Design

### Aims and hypotheses

In a previous small-scale study, it was found that sexually abused girls who were symptomatic were substantially more psychiatrically disordered than girls who were referred for psychiatric help but who were not sexually abused (Trowell et al. 1999). The current research was a large-scale one of symptomatic sexually abused girls who had all experienced contact sexual abuse. The first objective was to ascertain whether the patterns of psychiatric disorder identified previously were broadly consistent with the picture in this larger sample, and the second objective was to address a number of hypotheses about associations between environment and psychiatric disorders; and experiences of abuse and psychiatric disorder.

The specific hypotheses addressed were as follows. Children removed from the care of their parent(s) after the disclosure of abuse have suffered not only the trauma of the abuse but also the distress of the loss of their family and home at a time of great vulnerability. Looked-after children are removed from the family because the family does not believe them or they are not safe because the non-abusing parent chooses to remain

with the abuser. In addition, looked-after children are frequently placed in homes with more children, so the attention they receive is minimal and they are left feeling insecure and unsettled as they know moves are very common. All these experiences would tend to leave "looked-after" children without a secure base or positive attachment figures and the likelihood that the caring adults have little time or emotional energy to help the child process, contain and make sense of their experiences.

In brief, the hypothesis advanced is that sexually abused girls who were looked after, placed in substitute care, would show higher rates of psychiatric disorder than those who remained at home. Furthermore, abuse by fathers or father figures is thought to be a more serious betrayal and violation both physically and psychologically. One would hypothesise, therefore, that children abused by a father/father figure would show higher rates of psychiatric disorder and increased impairment of overall functioning than those abused by others (strangers). Finally, certain abuse characteristics would prove to be significant predictors of major psychiatric disorders and also general impairment of functioning.

### Subjects

Sexually abused girls and their carers were recruited for participation in the Treatment Outcome study at the Tavistock Clinic and the Maudsley Hospital, Child Guidance Clinic (Trowell et al. 1995; 2002). All girls were assessed either at the Tavistock Clinic, the Royal Free Hospital or the Camberwell Child Guidance Clinic.

The entry criteria for this study were as follows: a) contact child sexual abuse had occurred on the balance of probabilities verified by social services and/or court procedure, b) school-aged girls (6–14 years of age), c) consent to participate in the study completed by the child and the child's legal guardian, d) presence of symptoms of emotional or behavioural disturbance; e) the girls had all disclosed their abuse within the 2 years prior to referral. Exclusion criteria relevant for this sample were as follows: i) severe developmental delay, ii) psychosis.

Of the 94 sexually abused girls who were referred, some 81 who complied with the above criteria were invited to participate in an assessment. Nineteen girls had been placed into a foster family, with about one-third of these girls having lived in their new families for longer than 1 year, three were placed in children's homes, and 59 remained in their families of origin (Table 1). The latter group was categorised as "children remaining in family", whereas the children who were placed either in foster families or group homes formed the "children looked after" group ( $n = 22$ ).

The assessed girls had a mean age of 10.3 years. On

**Table 1** Sexually abused girls' demographic data at time of assessment

	Children remaining in family n = 59	Children looked after n = 22	All children n = 81
Age*			
mean (SD) in years	10.7 (2.3)	9.5 (2.2)	10.3 (2.3)
Presence of father figure			
yes	31 (53%)	9 (41%)	40 (49%)
no	25 (42%)	13 (59%)	38 (47%)
not known	3 (5%)	—	3 (4%)
Number of children living in family**			
one or two	30 (51%)	4 (18%)	34 (42%)
three or more	29 (49%)	18 (82%)	47 (58%)

\* t-value 2.16,  $p < 0.05$ ; \*\* chi-square 5.7,  $df = 1$ ,  $p < 0.0$

average the girls removed from the families were about 1 year younger than those remaining at home. For the purpose of analysis, the girls were located into two age groups. Girls under the age of 10 formed the "younger age" group ( $n = 36$ ), and girls 10 years of age or older were allocated to the "older age" group ( $n = 45$ ). Girls who had been looked after were significantly more likely to attend infant or junior schools than those who had remained in their families (Table 1). This reflects the age difference between the two groups and is linked to the finding that the looked-after children had been abused at a younger age for longer and by more abusers.

In addition, girls who were 'looked after' were significantly more likely to live in placements with three or more children (18/22) than the girls who had stayed in their family of origin (29/59) at the time of the assessment. All the girls had been investigated for sexual abuse by social services, but where an abuser had either left the family or was imprisoned, no order was deemed necessary to ensure the girls' safety.

## Measures

The subjects underwent a number of semi-structured interviews and psychological tests. For the purpose of this paper, only selected socio-demographic data, data regarding the abuse and the girls' psychopathology over the year prior to the baseline assessment are presented.

### Structured background interviews about the abuse

Parents were interviewed separately using the semi-structured formats that were developed and modified by Deblinger et al. (1996) and Kolvin et al. (1991). For the purpose of this paper, data related only to the following abuse characteristics were examined: (1) relationship with perpetrator, (2) age at onset of abuse, (3) duration

of abuse, (4) severity of abuse, (5) number of abusers, and (6) time between last abuse and baseline assessment. Wherever possible, data were organised into categories guided by the systems used by previous researchers. Information about specific abuse characteristics was not available in a small number of cases. Many of the subjects came from complex families and full data were not always available.

**Relationship with perpetrator.** The relationship with the perpetrator was coded as "parent figure" ( $n = 40$ ) and as "not parent figure" ( $n = 41$ ). The former category included biological parents, foster parents and substitute parents. Where there was more than one perpetrator involved, the one with the closest relationship was considered.

**Age at onset of abuse.** The subjects were gathered into two groups: (1) subjects who were abused before they were 6 years of age ('early onset abuse',  $n = 25$ ) and those abused when 6 years or older ('later onset abuse',  $n = 49$ ).

**Duration of abuse.** Subjects were allocated to two groups: (1) those who were abused over a period of up to 2 years ("shorter duration",  $n = 46$ ), and those who were victimised for longer than 2 years ("longer duration",  $n = 28$ ).

**Seriousness of sexual abuse.** Following the Russel (1983) criteria, three degrees of seriousness of sexual abuse were defined. "Least serious" ( $n = 12$ ) consisted of inappropriate kissing or sexual touching while the child was clothed, or sexual touching (non-genital) under the clothes or when the child was undressed. "Serious abuse" ( $n = 28$ ) was defined as direct genital touching, and/or digital penetration of the vagina or anus, or simulated intercourse. "Very serious" ( $n = 35$ ) was defined as cunnilingus, fellatio, anilingus, and oral or penile pene-

tration of the vagina or anus. For six subjects, there was not sufficient information for a determination of seriousness.

■ **Number of abusers.** These were coded as: (1) those girls who had been abused by "one perpetrator" ( $n = 51$ ), and (2) those who had been sexually abused by "more than one perpetrator" ( $n = 21$ ).

■ **Time elapsing between last abuse and the assessment.** Abused girls were allocated to two groups according to the length of time between the last abuse occurring and the baseline assessment for the therapy intervention study. The 39 girls who had suffered the last abuse within 2 years prior to the assessment were allocated to the "recent abuse" group. The 29 girls who had been abused for more than 2 years before the assessment were allocated to the "no recent abuse" group.

### Children's psychopathology

■ **Kiddie-SADS.** The fourth working draft of this semi-structured diagnostic interview for children 6- to 17-years-old was used (Puig-Antich and Ryan 1986). It is a valid and reliable semi-structured interview questionnaire (Ambrosini et al. 1989) and consists of definitions of items, followed by set probes and scales that have to be rated on the basis of the information provided. On the basis of the information, current DSM-IV diagnoses were established as well as diagnoses over the past 12 months. Severity of the disorder was also rated along the spectrum: mild, moderate, and severe. Only those subjects in the severe category were considered as suffering from a disorder with impairment (Trowell et al. 2002). For the purpose of this study, the manic and the psychotic sections were excluded. However, some modifications were necessary to allow DSM-IV diagnoses. For example, additional themes combined with clinical observations were considered in order to allow a diagnosis of Attention Deficit Hyperactivity Disorder and Reactive Attachment Disorder. For the purpose of this paper all disorders were coded as "present" or "not present".

■ **Post-Traumatic Stress Disorder questionnaire.** The questionnaire is an extension of the K-SADS-E developed by Orvaschel et al. (1989). Probes in the style of the K-SADS are given to elicit all symptoms of Post-Traumatic Stress Disorder over the year and within the last 2 months prior to the assessment. For various reasons, four of the girls declined to respond to some probes of this questionnaire – two indicating that they did not wish to think about their abuse-related feelings.

■ **Impairment of child's functioning.** Overall impairment of child's functioning was determined using the Chil-

dren's Global Assessment Scale (CGAS) (Shaffer et al. 1983). The satisfactory reliability and validity have been described by Shaffer et al. (1983) and Bird et al. (1987). The version used in this research was that modified for the K-SADS with scores ranging in a value from 1 for the most impaired child to 9 for the highest functioning (Puig-Antich and Ryan 1986). The current level of functioning and that over the previous 12 months were rated by the interviewer at the end of the interview after the full diagnostic and clinical assessment of the child was completed.

### Procedures

The K-SADS and the Post-Traumatic Stress Disorder questionnaire were administered by child psychiatrists with extensive clinical experience and training in child psychopathology and in administration of the K-SADS interview. Senior social workers or psychologists interviewed parents, foster parents and the children's social workers using semi-structured demographic and sexual abuse questionnaires.

### Statistical methods

For the purpose of this paper, univariate analyses of data were undertaken to examine differences in psychopathology according to abuse characteristics, carer status, and age at baseline assessment. Categorical data were subjected to chi-square tests, and odds ratios; confidence intervals were calculated where appropriate. Continuous data were analysed using student's t-test for independent samples.

The association between child sexual abuse characteristics, age at the baseline assessment and care status on the one hand, and the presence or absence of the three main specific child psychiatric disorders and levels of psychiatric impairment on the other were explored using Kendall Tau's correlation coefficients with a  $p < 0.05$ . The exercise was confined to the three psychiatric disorders with sufficient subjects for multivariate analyses – namely, Major Depression Disorder (57%), Separation Anxiety Disorder (58%) and also PTSD (73%). Only four predictor variables met the above criteria in relation to each of the above three child psychiatric disorders – whether the abuser was a parent figure, recency of abuse, seriousness of abuse, number of abusers. Surprisingly, duration of abuse did not achieve significance.

In order to examine the independent and joint effects of the selected abuse and demographic variables on the presence of the three specific child psychiatric disorders over the year prior to the baseline assessment, multivariate analyses were conducted using logistic regres-

sion. Stepwise selection was used and the four variables identified above were entered, with removal based on the probability of the Wald statistic. In addition, to control for any interaction effects, procedures were repeated entering an interaction variable between the relationship with the perpetrator and seriousness of abuse.

Multiple regression analysis followed; the four independent variables, seriousness of abuse, recency of abuse, number of abusers and abuser relationship were again used to examine their relative contributions towards the general level of functioning (Kiddie-GAS) over the year prior to the assessment. The Kiddie-GAS scores were normalised using a logarithmic transform. On this occasion, one other abuse characteristic was included as a predictor – namely, age of onset of abuse.

## Results

### Consistency of patterns of disorders

The original comparison sample numbered only 21 sexually abused girls (Trowell et al. 1999). An important question was whether there were any small sample biases which led to distortions of prevalence patterns.

	Original sample	Full sample
PTSD	71 %	73 %
Major Depressive Disorder	67 %	57 %
Separation Anxiety	62 %	58 %
General Anxiety	38 %	37 %
Reactive Attachment Disorder	29 %	27 %
Social Phobias	33 %	15 %
Impairment – mild	5 %	7 %
moderate	29 %	31 %
serious	66 %	62 %

It is noted that the rates for the main disorders prove similar for the smaller and the full sample of 81 subjects. Overall, the patterns are tightly consistent on five of the seven conditions, moderately inconsistent on one and inconsistent on one.

### Abuse characteristics according to carer status and perpetrator at time of baseline assessment

#### According to carer status

With one exception there was only minor variation in rates of psychiatric disorders or impairment of overall functioning between children "remaining in the family" and those looked after. The exception was Separation Anxiety Disorder which was evidently more common in those remaining in the family (64%) compared with

those looked after (41%), but falling short of significance (chi-squared 3.63,  $df=1$ ,  $p<0.057$ , Odds Ratio 2.61, CI 1.0–7.1).

#### According to perpetrator status

Table 2 reveals that girls who were abused by someone who was not a parent figure often show an excess of psychiatric disorders as compared to those abused by a parent figure. This only reaches statistical significance for Separation Anxiety Disorders (chi-squared 4.7,  $df=1$ ,  $p<0.05$ , Odds Ratio 2.6). Impairment of overall functioning (Kiddie-GAS) shows a similar pattern but the differences are not significant. With Reactive Attachment Disorder the percentages are reversed, but the differences proved not significant.

Overall, there was a high degree of comorbidity (Table 2) with a mean number of child psychiatric disorders of 3.7 (SD 2.2). When the data were re-examined by perpetrator status, the mean comorbidity for those abused by a parent figure was 3.4 and for those abused by someone who was not a parent figure it was 3.9. The extensive comorbidity was reflected in the level of impairment in overall functioning over the year prior to the baseline assessment. Consistent with other data, there was a pattern of higher rates of severe impairment of overall functioning according to the relationship with the perpetrator. However, the differences proved not significant.

#### Sexual abuse characteristics according to abuser being a parent figure or not

Table 3 provides information about five such characteristics – and on all of them the rates are higher in the group of children abused by a parent figure, but the differences are only significant on the features 'early onset of abuse' and 'longer duration of abuse'.

#### Logistic regression: contribution of diverse abuse characteristics at baseline assessment to specific child psychiatric disorders

Four of the dichotomous variables – abuser status, recency of abuse, number of abusers and seriousness of abuse – were entered into backwards stepwise logistic regression analyses for each specific child psychiatric disorder. The analyses were confined to those disorders which were relatively common (Table 4).

Major Depressive Disorder was predicted significantly by: (i) being abused by someone who was 'not a parent figure', (ii) the abuse was not recent – at least 2 years had elapsed between the last abuse and the baseline assessment, and (iii) the experience of a serious form of abuse. The only significant predictor of Separation

**Table 2** DSM-IV diagnoses over the year prior to the baseline assessment

	Children abused by 'parent figure' n = 41	Children abused by 'not a parent figure' n = 40	All children n = 81
DSM-IV psychiatric disorders			
Major Depressive Disorder	20 (49%)	26 (65%)	46 (57%)
General Anxiety Disorder	13 (32%)	17 (43%)	30 (37%)
Separation Anxiety Disorder	19 (46%)	28 (70%)	47 (58%)
Panic Disorder	4 (10%)	7 (18%)	11 (14%)
Agoraphobia	—	2 (5%)	2 (3%)
Social Phobia	7 (17%)	5 (13%)	12 (15%)
Avoidance Disorder	5 (13%)	4 (10%)	9 (11%)
Reactive Attachment Disorder	13 (32%)	5 (13%)	18 (22%)
Oppositional Defiant/Conduct Disorder	10 (24%)	16 (40%)	26 (32%)
Attention Deficit/Hyperactivity Disorder	6 (15%)	6 (15%)	12 (15%)
Eating Disorder (Bulimia)	—	1 (3%)	1 (1%)
Post-Traumatic Stress Disorder*	29 (73%)	27 (73%)	56 (73%)
Impairment of overall functioning			
Very severe and severe impairment (< 6)	23 (56%)	27 (68%)	50 (62%)
Moderate impairment (= 6)	13 (32%)	12 (30%)	25 (31%)
Mild impairment (= 7 or > 7)	5 (12%)	1 (3%)	6 (7%)

\* Information was available for 77 girls

**Table 3** Sexual abuse characteristics according to abuser being a *parent figure* or not

	n (percentage)	Abused by 'parent figure' (percentage)	Not abused by 'parent figure' (percentage)	Odds Ratio	95% Confidence Interval	df	chi-square	p
Pattern of abuse								
'Most serious abuse'	35/75 (46.7%)	22/40 (55.0%)	13/35 (37.1%)	2.1	(0.8, 5.2)	1	—	NS
'Early onset of abuse'	25/74 (33.8%)	19/36 (52.8%)	6/38 (15.8%)	6.0	(2.0, 17.7)	1	9.7	< 0.01
'Longer duration of abuse'	28/74 (37.8%)	19/37 (51.4%)	9/37 (24.3%)	3.3	(1.2, 8.8)	1	4.6	< 0.05
'More than one abuser'	22/73 (30.1%)	13/38 (34.2%)	9/35 (25.7%)	1.5	(0.5, 4.1)	1	—	NS
'Younger age' (at assessment)	36/81 (44.4%)	22/41 (53.7%)	14/40 (35.0%)	2.2	(0.9, 5.4)	1	—	NS

Full data varied according to pattern of abuse ranging from 73 to 81 subjects

tion Anxiety Disorder was that the perpetrator was 'not a parent figure'.

When an interaction variable between severity of sexual abuse and perpetrator was entered in addition, the results remained unaltered and the interaction variable was not selected as predictor for any child psychiatric disorder.

#### Multiple regression analysis: predictors of the girls' general level of functioning (Kiddie-GAS) (Table 5)

The impairment of overall functioning was significantly predicted by two of the five independent variables entered in stepwise multiple linear regression analysis,

namely: (1) the abuser being 'not a parent figure', and (2) 'greater seriousness of abuse'. Together they accounted for 16% of the variance of outcome.

A further set of analyses were undertaken to ascertain if the pattern of predictors varied when studied separately for those girls who had been abused by a parent figure, and also for those who had not. The numbers of subjects in these analyses varied from 34 to 37. In the case of those girls whose perpetrator was a 'parent figure', when entering only the following predictor variables, severity of abuse, onset of abuse and recency, only one predictor of impairment of functioning proved significant, namely, severity of abuse ( $p < 0.01$ ), explaining 20% of the variance in outcome. Studying those subjects abused by someone who was 'not a parent figure', only



**Table 4** Results of logistic regression analyses (backwards stepwise) with child and adolescent psychiatric disorder as dependent variable and pattern of sexual abuse as independent variables

	Major Depressive Disorder			Separation Anxiety Disorder		
	n	Odds Ratio (95% CI)	Significance Wald	n	Odds Ratio (95% CI)	Significance Wald
Abuser						
parent figure	39	1.0		37	1.0	
not a parent figure	35	1.9 (1.1–3.2)	4.9, df = 1, $p < 0.05$	32	2.0 (1.2, 3.3)	6.8, df = 1, $p < 0.01$
Most recent abuse						
recent abuse	29	1.0		—	not entered*	
no recent abuse	45	1.7 (1.0–3.0)	3.8, df = 1, $p < 0.05$	—		
Number of abusers						
one	—	not entered*		48	not selected	
more than one	—			21		
Seriousness of abuse						
least seriousness	12			11		
serious	28	1.3 (0.6–2.7)	6.7, df = 2, $p < 0.05$	27	not selected	
most serious	34	2.6 (1.2–5.7)		31		
Prediction of outcome			68.9 %			65.2 %
Model chi-square			13.8, df = 4, $p < 0.01$			7.3, df = 1, $p < 0.01$

\* Variables not entered if probability of Kendall Tau's correlation coefficient was greater than 0.10

Full data were not always available so that the number of subjects included in the analyses ranged from 60 to 74

**Table 5** Prediction of impairment of functioning (Kiddie-GAS) by abuse characteristics (using multiple regression analysis)

Independent variable	Beta	p
Pattern of abuse		
Abuser (parent/non-parent figure)	-0.304	< 0.02
Onset of abuse (under/over 6 years)	-0.165	NS
Recency (less/more than 2 years ago)	-0.01	NS
Number of abusers (1/more than 1)	-0.122	NS
Seriousness of abuse	-0.375	< 0.004

R = 0.475; R-squared = 0.224; Adjusted R-squared = 0.158  
F (5.59);  $p < 0.01$

recency of abuse predicted significantly greater impairment of functioning and accounted for 24 % of the variance in outcome.

## Discussion

### Patterns of psychopathology: comparing the sub-sample and the full sample of subjects

The patterns of psychopathology across the original smaller and the current fuller sample are consistent on five of the seven main conditions. A moderate inconsistency is that the rate of Major Depressive Disorder runs at 67 % in the smaller North London sample and only

57 % in the full sample. However, social phobias show a large difference, with 33 % in favour of the small sample and 15 % for the large sample.

The broadly consistent rates of impairment of overall functioning do not support the notion that the subsequent 60 subjects had less common disorders. Overall, the conclusion is that sexually abused girls who are referred for therapy because of emotional symptoms are likely to suffer from high rates of Post-Traumatic Stress Disorder, Major Depressive Disorders, Anxiety Disorders (Separation and General) and impairment of overall functioning (Trowell et al. 1999). Based on accounts in literature, these rates of disorder are higher than anticipated. The view that the original small sample suffered selection bias is not supported by the findings on the full sample of 81 subjects coming from both North and South London (Trowell et al. 1999).

In conclusion, the main pattern of psychopathology previously reported was confirmed that the current sample is likely to be representative of subjects who are symptomatic and are referred to clinics for intervention. These findings will be of wide interest to both clinical and psychotherapeutic services.

Of theoretical and clinical interest is the comparison of abuse characteristics according to the status of the perpetrator (see Table 3) where two sexual abuse characteristics significantly differentiate groups of girls abused by their parent figure as compared to those not abused by parent figures. Early onset of abuse and

longer duration of abuse are significantly commoner in the former group.

### ■ The hypotheses

Firstly, the notion that looked-after children would show wider and severe psychiatric psychopathology was not confirmed. In fact, there was only one significant difference, which consisted of significantly higher Separation Anxiety Disorders in the group of girls who were removed from their family. The difference for the "looked-after" children was the disruption of their removal and the loss of home and of their family – however dysfunctional. These circumstances could be the basis of increased rate of Separation Anxiety in the "looked-after" group of girls.

Secondly, the hypothesis that girls abused by a father figure would show higher rates of psychiatric psychopathology was also not confirmed. In fact, the converse proved true where higher rates were found on all the four main disorders in that group of children abused by a person who was not a father figure (Table 2). However, the difference was significant only for the Separation Anxiety Disorder ( $\chi^2 = 4.7$ ;  $df = 1$ ;  $p < 0.05$ ). This pattern contradicts the theoretical view that the apparent degree of distress will be higher when the abuser is a parent figure. This finding merits replication. Impairment of overall functioning was also marginally higher in this group of children, but the difference proved not significant.

Finally, the hypothesis about the prediction of psychiatric disorders was confirmed, but not impressively so, and again, not always according to expectation.

Major Depressive Disorder was predicted significantly (using logistic regression analysis) by seriousness of abuse, the abuse not being recent and the abuser not being a parent figure. However, the significance levels were not high ( $p < 0.05$ ). Separation Anxiety was also predicted significantly but only by the abuser not being a parent figure ( $p < 0.01$ ).

There was a strong prediction of overall level of impairment of functioning with seriousness of abuse proving to be the strongest predictor ( $p < 0.004$ ); the next strongest predictor was the abuser not being a parent figure ( $p < 0.02$ ). It could be argued that the abuser status when used as an independent predictor variable confounds the picture. For these reasons, separate prediction analyses were undertaken for the two cohorts of children who were abused by a parent figure and those who were not. For the group of girls abused by a parent figure, only severity of abuse proved to be a significant predictor – which was according to expectation. For the group abused by a person who was not a parent figure, the only significant predictor was 'no recent abuse'.

### ■ Impairment and abuse characteristics

The significant relationship between greater impairment of overall functioning and being abused by a perpetrator who is 'not a parent figure' in the present study is in contrast to the findings of other research (Browne and Finkelhor 1986; Beitchman et al. 1991; Kendall-Tackett et al. 1993). In the literature, the general assumption is that the closer the relationship with the perpetrator the greater the impact of the abuse. This merits re-examination.

Evidently, an earlier onset of abuse and a longer period over which abuse has occurred are more likely to be described if the perpetrator is a parent. Thus, it is interesting to note that, in the present study, where girls were abused by a 'parent figure', 'greater seriousness of abuse' remained the only significant predictor of impairment. In those girls who were abused by someone who was 'not a parent figure', only 'early onset of abuse' proved a significant predictor. It could be argued that the more serious abuse, that is penetrative abuse, profoundly violated not only the child's body, but also the child's capacity to think and reflect and to be in touch with their emotional responses. However, many of the children extensively used dissociation when stressful or disturbing matters were being addressed. Therefore, it would seem likely that where the abuse was serious, had occurred at an early age and some time before disclosure, the child had become adept at this coping strategy. It protected them to some extent, but resulted in considerable emotional and behavioural manifestations.

Sansonnet-Hayden et al. (1987) hypothesised that there would be a different impact of sexual abuse at different developmental stages, i.e. older children would be more aware of the devious and stigmatising nature of sexual victimisation. In the present study, a number of age-related variables proved significant predictors of impairment. These included early onset and longer time interval between last abuse and assessment.

### Abuse characteristics and specific psychiatric disorders

Employing multivariate analyses, Mennen (1993) did not report an association between abuse variables and the trichotomised score on the Revised Children's Manifest Anxiety Scale (RCMAS). In contrast, in the current study, there were three significant predictors of Major Depressive Disorder (all  $p < 0.05$ ); but only one for Separation Anxiety Disorder ( $p < 0.01$ ). Both disorders were predicted by the variable, the abuser was not a parent figure, but more powerfully for separation anxiety. A plausible explanation is that the abuse has engendered a fear of being away from mother. Further, it can be argued that child victims of the two types of abusers are different populations; hence, researchers should report the proportions of subjects abused by 'parent figures' in



their samples and consider how these proportions may have influenced emergent patterns.

In studies of adult survivors of sexual abuse, 'seriousness of sexual abuse' is highly associated with major depression (Mennen 1993). Such relationships were not necessarily reported in follow-up studies which employ only self-rating questionnaires (Tebbutt et al. 1997). On balance, most reviews, including the current study, support the presence of this association in child victims (Browne and Finkelhor 1986; Beitchman et al. 1991; Kendall-Tackett et al. 1993; Green 1993). In the current study, major depression over the year prior to the baseline assessment was also significantly more likely when the girl had been abused by 'not a parent figure' and also by a time interval of more than 2 years between the last abuse and assessment.

The combination of abuse variables which link with Major Depressive Disorder suggests that these abuse experiences heighten the vulnerability to depression.

One reason for the higher rate of internalising disorders in the current study could relate to the referral process itself. Lynch et al. (1993) reported that more severely abused children or children from more disturbed family background were not necessarily referred to their clinics. However, the London sample consists of girls referred for psychotherapy predominantly to the Tavistock Clinic, a tertiary treatment centre (Trowell et al. 1999).

Some studies rely on self-report behaviour inventories. However, internalising disorders may be under-recognised when the assessment is based purely on parental reports or child self-reporting rather than when semi-structured interviews of both parents and children are undertaken covering the abused child's psychopathology.

In the current study, patterns of significant influence

of abuse characteristics were identified when the sexually abused girls were dichotomised according to the relationship of the victim to the perpetrator. Multivariate analyses revealed greater influences of certain variables on impairment of functioning or on the presence of specific child psychiatric disorders. Thus, it is likely that in different cohorts of abused children the composition of sexual abuse characteristics will determine the varying patterns of psychopathology and impairment of functioning. For comparison and clarification, future studies will need to describe most carefully the constellation of abuse characteristics and specify the relationship of the child victim to the abuser.

### Limitations of the study

There are two main limitations. Firstly, this is not a random sample of sexually abused girls, but rather those who were both clinically symptomatic and referred for therapy, and it is unclear whether we would obtain similar results in those community-based unreferred subjects with lesser degrees of psychopathology or overall impairment of functioning. Further, the lack of a control group of non-referred sexually abused girls limits the generalisability of the findings. These cautions remain despite the data being analysed applying multivariate statistics. Secondly, the relatively small numbers in the separate multiple regression analysis again suggest caution in drawing wide conclusions.

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