

# Efficacy of Psychoanalysis for Children with Emotional Disorders

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## ABSTRACT

**Objective:** This is the second report from a chart review of 763 cases of child psychoanalysis and psychotherapy at the Anna Freud Centre. **Method:** Three hundred fifty-two children and adolescents were identified who met *DSM-III-R* criteria for emotional disorders or who had sleep or somatoform symptoms with marked emotional disturbance. Two hundred fifty-four were treated in full psychoanalysis, the remainder one to three times per week, for an average of 2 years. Outcome was indicated by diagnostic change and by change in overall adaptation, measured by the Children's Global Assessment Scale (CGAS). **Results:** Of those treated for at least 6 months, 72% showed reliable improvement in adaptation, 24% still had some diagnosis at termination, and 15% still had an emotional disorder. Simple phobias were most likely to remit, and depressed children were least likely to return to normal CGAS levels. Children younger than 11 years were considerably more likely to be well at the end of treatment. Intensive treatment generally led to greater improvements, independently of age and treatment length. Certain disorders, and more severe pathology, required intensive treatment; 50% of severe cases showed no improvement in psychotherapy. Thirty-one percent of variance in CGAS change could be predicted, and greater than 50% when diagnostic groupings were examined separately. **Conclusion:** Despite methodological limitations, the study identifies predictors of improvement (e.g., younger age, phobic symptoms, intensity and length of treatment) and shows that severe or pervasive pathology requires intensive analytic help. *J. Am. Acad. Child Adolesc. Psychiatry*, 1994, 33, 3:361–371. **Key Words:** emotional disorder, child psychoanalysis, child psychotherapy, chart review, outcome.

Emotional disorders constitute just under half of the overall prevalence of psychological disturbances in childhood (e.g., Esser et al., 1990; Yule, 1981). These syndromes are characterized by anxiety or depression and are broadly termed "internalizing" disorders, as opposed to (for instance) disruptive or developmental disorders. Recent epidemiological work suggests that they are the most common problems across all age

groups (e.g., Kashani and Orvaschel, 1990; Bernstein and Borchardt, 1991, for review). Children with emotional symptoms are less frequently referred for psychiatric attention than are those with disruptive disorders (Kazdin, 1985), and the information available on the natural history of these disorders and their response to psychological treatment is sparse when compared with that available for other diagnostic groups.

It is widely believed that emotional disorders often remit spontaneously (this belief is often based on pioneering work such as the Robins [1984] follow-up study, which suggested low persistence of emotional disorders). This may account for their underrepresentation in clinical studies (Ollendick and King, 1991). Recent longitudinal investigations (Fischer et al., 1984; Harrington et al., 1990) and retrospective studies (Agras et al., 1972; Francis and Ollendick, 1986) suggest that this belief may be overly optimistic. There is also evidence that the natural history of different anxiety disorders differs, so that although separation anxiety and early childhood phobias have a fairly benign course

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(Husain and Kashani, 1992), overanxious disorder (OAD) is more chronic (Cantwell and Baker, 1989; Last, 1987) and is associated with additional depression in adolescence (Strauss et al., 1988) and perhaps with generalized anxiety disorder in adulthood (Last et al., 1987). Similarly, separation anxiety disorder (SAD) and avoidant disorder seem to develop into other disorders in the majority of cases, rather than remitting entirely (Beitchman et al., 1987; Cantwell and Baker, 1989). The long-term outcome of other disorders (OAD, obsessive-compulsive disorder [OCD], and depression) is worse, with 75% of patients showing no improvement or deteriorating (e.g., Cantwell and Baker, 1989; Flament et al., 1988; Kovacs and Gatsonis, 1989). There is also evidence that emotional disorders increasingly impede general adaptation (Kashani and Orvaschel, 1990).

Systematic studies of the effectiveness of psychosocial treatments for emotional disorders are rather few. There are many single-case studies of behavioral and cognitive treatment of emotional disorders (see Kendall et al., 1988; and Silverman and Kearney, in press, for reviews), but few reports of series of cases, and fewer still with any control condition. There are some large-scale studies, mostly of school phobia, with inconclusive results (e.g., Miller et al., 1972). Controlled studies of treatments for childhood depression have used cognitive-behavioral approaches, generally with nonclinical samples (e.g., Kahn et al., 1988; Stark et al., 1987). Reviews (Kazdin, 1990a) suggest that these techniques are more effective than no treatment and that improvements are maintained for some weeks.

This paper is the second report from a retrospective study of the outcome of psychoanalytic treatment of children and adolescents. The first report (Fonagy and Target, 1994) introduced the study and described the outcome of treatment of disruptive behavioral disorders. This paper focuses on the largest group treated, 352 children and adolescents with anxiety and depressive disorders.

## METHOD

### Subjects

The sample was drawn from 763 closed treatment files of the Anna Freud Centre, which represent 90% of all cases treated at the Centre. Of these cases 76% received psychoanalytic treatment four or five times weekly, the remainder psychotherapy one to

three times weekly, from child analysts trained in Miss Freud's approach (Sandler et al., 1980). Three hundred fifty-two cases met criteria for at least one *DSM-III-R* diagnosis which we classified as emotional disorder (136 overanxious or generalized anxiety disorder, 93 major depression or dysthymia, 64 SAD, 49 simple phobias, 24 avoidant disorder, 37 OCD). The sample also included 27 children with a diagnosis of dyssomnia, parasomnia, or somatoform disorder, who also had significant emotional symptoms (at least two relevant items on the Child Behavior Checklist rated "very true"), without meeting the criteria for a specific anxiety or depressive disorder. We excluded children with a diagnosis of a psychotic or pervasive developmental disorder. Twenty-four children had a disruptive disorder (22 of these oppositional defiant disorder) in addition to the emotional disorder, and there were many other coexisting diagnoses, e.g., 48 children had enuresis or encopresis, and 39 showed specific developmental disorders.

On the basis of a hierarchical class analysis of a symptoms by cases matrix (de Boeck et al., 1993) we divided the children into three major diagnostic subgroups: group 1 contained 99 children with a depressive disorder (major depression or dysthymia) with or without comorbid anxiety; group 2 included 144 children with generalized anxiety (OAD or generalized anxiety disorder) with or without focused anxiety symptoms; and group 3 included 109 children with specific anxiety disorders (e.g., simple phobia, OCD, SAD). To confirm this grouping, we performed a discriminant function analysis on the symptoms by cases matrix. The model accurately assigned between 75% and 85% of the cases, compared to chance assignment of 33%. Table 1 contrasts some demographic and clinical characteristics of these groups.

There were few differences at referral between the groups, but some of these have potential relevance to treatment outcome. Depressed children were likely to be slightly older, to come from a broken family, and to receive nonintensive treatment. More of them had fathers with psychiatric histories ( $\chi^2 = 8.3$ ,  $df = 2$ ,  $p < .02$ ), and, relative to the group with specific anxiety disorders, more showed underachievement and poor peer relationships at school ( $\chi^2 = 19.9$ ,  $df = 2$ ,  $p < .001$  and  $\chi^2 = 10.5$ ,  $df = 2$ ,  $p < .005$ , respectively).

The median length of treatment was 2 years (geometric mean 1.95, range 1 week to 13.6 years). The three groups did not differ significantly in terms of length of treatment; 7.5% terminated treatment within 3 months, 14% within 6 months, and 25% before 1 year. Depressed children more often terminated treatment within 6 months, 21% compared to 7% to 8% in the other two groups ( $\chi^2 = 13.4$ ,  $df = 2$ ,  $p < .002$ ).

### Measures

The documentation available on the children was more systematically collected and extensive than is usual in clinical charts. This information and the measures extracted are described in detail in a previous paper (Fonagy and Target, 1994). They fall into four categories: (1) Demographic measures include biographical and social information on the child and on his or her family (e.g., the family's cultural background, socioeconomic status, current size and structure). (2) Diagnostic details include *DSM-III-R* Axis I and II diagnostic classifications, made separately for the past, the time of referral, and termination. The reliabilities achieved were in line with those obtained at other centers, between 0.5 and 0.8 (median  $\kappa$  0.7). Presenting symptomatology was recorded using Child Behavior Checklist protocols (Achenbach and Edelbrock, 1986), and level of functioning was rated independently for referral and termination on the Children's Global Assessment Scale (CGAS;

**TABLE 1**  
Some Demographic and Clinical Characteristics of Children in Each Diagnostic Group

	Depression	Generalized Anxiety	Specific Anxiety	Whole Group	Statistics
Mean age, years (SD)	11.9 (3.7)	9.2 (3.6)	9.7 (4.3)	10.1 (4.0)	$F_{2,313} = 15.1, p < .0001$
% Boys	55	52	56	54	$\chi^2 = .40, df = 2, NS$
Mean IQ (SD)	116.4 (14.0)	115.9 (16.9)	112.3 (13.4)	114.9 (15.1)	$F_{2,349} = 2.45, NS$
% Social class I or II	65	70	70	69	$\chi^2 = .94, df = 2, NS$
% Intact families	68	81	81	78	$\chi^2 = 7.70, df = 2, p < .03$
% Only child	11	17	15	15	$\chi^2 = 1.46, df = 2, NS$
% Fostered	7	4	7	6	$\chi^2 = 2.23, df = 2, NS$
Mean CGAS score (SD)	53.0 (7.6)	54.8 (7.2)	53.6 (7.3)	53.9 (7.3)	$F_{2,349} = 1.90, NS$
% Intensive treatment	61	77	76	72	$\chi^2 = 9.21, df = 2, p < .01$

Note: CGAS = Children's Global Assessment Scale; NS = not significant.

Shaffer et al., 1983). The interjudge reliability of the CGAS scores, and of the difference between ratings at referral and at termination, were assessed for 50 cases, using four independent, board-certified child psychiatrists. Intraclass  $R$  values were high ( $R = .77$  for initial and end-of-treatment ratings and  $R = .88$  for change scores). (3) Clinical information includes losses and separations, medical history and hospitalizations, the child's behavior and performance at school, previous treatment for psychological disturbance, and psychiatric histories and treatment and current functioning of the child's parents (Global Assessment of Functioning score). (4) The final category includes information about treatment (referral, session frequency, length of treatment, change of therapist, reason for termination, etc.) and the therapist (e.g., gender, years of experience). The data were recorded on a standardized form with operational definitions.

The reliability of all data collected was checked against a criterion of 95% agreement.

The outcome measures used and the statistical treatment of the data also have been described in our previous report. Four criteria for improvement were used: (1) no diagnosable psychiatric disorder and an adaptation level rating greater than 70; (2) a CGAS score greater than 68 at termination, based on Jacobson and Truax's (1991) index of the weighted relative likelihood of being in the functional or dysfunctional population, based on the point of equal distance between the means of these two populations, weighted by the distributional properties of each population; (3) a statistically reliable change in adaptation level based on Christensen and Mendoza's (1986) formula; this uses the standard deviation of the dysfunctional group, together with interjudge reliability of the measure, to indicate the size of change necessary to identify cases where change could not be due to measurement error and chance fluctuations. In this sample reliable change is indicated by a difference in CGAS greater than 7 points. (4) Change in CGAS score was used as a continuous variable in predictions of the extent of improvement.

For statistical analysis, we used the BMDP suite of statistical programs (Dixon, 1988). To reduce shared variance between predictor variables, we performed a principal components analysis with varimax rotation on 80 variables and arrived at 58 relatively independent predictors. We contrasted groups by using analysis of variance (ANOVA) and covariance (ANCOVA) to examine a continuous dependent variable (e.g., change in CGAS) in relation to one or more categorical variables (e.g., diagnostic group and intensity of treatment), sometimes adjusted for a covariate (e.g.,

length of treatment); cross-tabulation procedures were used for looking at the relationship between two categorical variables. We used stepwise multiple regression and discriminant function analysis to predict favorable outcome from the 58 independent variables. In all ANOVA and regression analyses we tested that the assumptions of the general linear model were met, by examining the distribution of residuals plotted against predicted values. The interaction of three or more categorical variables (for example severity of disorder, intensity of treatment, and improvement) was modeled using hierarchical log-linear analysis (Fienberg, 1977) which, in a manner analogous to the ANOVA, decomposes multiway associations and attempts to fit models to the observed frequency distributions using the lowest order of interactions required.

Children who were in treatment for less than 6 months were excluded from most of the statistical analyses, as this was judged to be the shortest length of treatment which could be regarded as constituting some psychoanalytic experience.

## RESULTS

### Rates of Improvement

Rates of improvement varied between 40% and 71%, according to the criteria used (see Table 2).

There were no overall differences in rates of improvement across diagnostic subgroups on the  $\chi^2$  test.

In 26% of cases the information was insufficient at termination to decide on diagnosis, but 27% still had at least one disorder at termination. Only 13% of the sample continued to have diagnoses of emotional disorder; OCD and SAD most frequently remained. Other persistent diagnoses were enuresis, specific developmental disorders, and conduct disorder. Table 3 shows rates of emotional, conduct, and other diagnoses at the end of treatment for children who were treated for at least 6 months. Children with simple phobias (with or without other disorders) were less likely to

**TABLE 2**  
Rates of Improvement in Each Diagnostic Group According to Different Outcome Criteria

Outcome at Termination	Depressed ( <i>n</i> = 99 [74])	Generalized Anxiety ( <i>n</i> = 144 [129])	Specific Anxiety ( <i>n</i> = 109 [96])	Whole Group ( <i>n</i> = 352 [299])
No diagnosis + CGAS $\geq$ 70	40.4 [51.4]	50.0 [53.5]	49.5 [53.1]	47.2 [52.8]
Not dysfunctional, CGAS $\geq$ 68	44.4 [55.4]	54.9 [58.9]	55.0 [58.3]	52.0 [57.9]
Reliable improvement in CGAS (> 7 points)	61.6 [74.3]	66.0 [69.8]	70.6 [72.9]	66.2 [71.9]

*Note:* Values are percentages. Numbers in brackets refer to rates of improvement when children treated for less than 6 months are excluded. CGAS = Children's Global Assessment Scale.

be diagnosable at the end of treatment (corrected  $\chi^2 = 3.89$ ,  $df = 1$ ,  $p < .05$ ). On our second outcome criterion, depressed children more often remained in the dysfunctional CGAS range, i.e., below 68 (corrected  $\chi^2 = 4.73$ ,  $df = 1$ ,  $p < .03$ ).

As the three groups differed in age, we examined improvement rates separately for children younger and older than 11 years. We performed hierarchical log-linear analyses on  $3 \times 2 \times 2$  contingency tables, using diagnostic grouping, age group, and improved versus not improved as the three factors. A higher proportion of younger children improved (partial  $\chi^2 = 8.87$ ,  $df = 1$ ,  $p < .003$  and  $\chi^2 = 12.56$ ,  $df = 1$ ,  $p < .0005$ , respectively, for diagnostic status and moving out of the dysfunctional group). Although the depressed group was slightly older than the other two groups, there was no indication of a significant three-way interaction between diagnostic group, age, and likelihood of improvement on any of the criteria. Thus, any difference in outcome associated with diagnosis could not be attributed to age differences between the groups.

#### Treatment Intensity

Treatment intensity was associated with positive outcome; whereas 87% of the sample treated in full psychoanalysis showed reliable change (rise in CGAS > 7 points), and 86% moved out of the dysfunctional group (CGAS  $\geq$  68), only 67% and 75%, respectively, of children in psychotherapy showed these changes. A three-way hierarchical log-linear analysis, including diagnostic group, intensity, and outcome criteria, yielded a significant two-way interaction between outcome and treatment intensity for both the above criteria (partial  $\chi^2 = 15.12$ ,  $df = 1$ ,  $p < .0001$  and partial  $\chi^2 = 6.16$ ,  $df = 1$ ,  $p < .02$ , respectively). As psychoanalytic treatment was frequently longer than psychotherapeutic treatment, we controlled for treatment length by introducing it into the hierarchical log-linear analysis. The

analysis clearly revealed that while intensity was associated with length ( $\chi^2 = 12.23$ ,  $df = 3$ ,  $p < .01$ ), longer treatment and more intensive treatment were *independently* associated with a greater likelihood of reliable improvement (partial  $\chi^2 = 17.47$ ,  $df = 3$ ,  $p < .001$  and partial  $\chi^2 = 7.85$ ,  $df = 1$ ,  $p < .01$ , respectively). Similarly, although outcome was better for younger children, who also more often received intensive treatment, they did not benefit more from this assignment than older individuals ( $\chi^2 < 1$ ,  $df = 1$ , not significant [NS]).

More frequent sessions were associated with larger CGAS changes. A  $2 \times 3$  ANCOVA was performed, with intensity and diagnostic group as between factors, treatment length as a covariate, and treatments shorter than 6 months excluded. The main effect of intensity was significant ( $F = 5.55$ ,  $df = 1,305$ ,  $p < .02$ ). The mean CGAS change in nonintensive treatment was 8.7 (SD = 12.9), and in intensive treatment was 13.9 (SD = 10.9). There was no significant interaction between diagnosis and intensity of treatment ( $F < 1$ , NS), but test of simple effects revealed that children with overanxious or generalized anxiety disorders did significantly better in intensive treatment ( $F = 5.13$ ,  $df = 1,305$ ,  $p < .03$ ). We performed additional ANCOVAs for each of the specific diagnostic categories and found significant interactions in three diagnostic groups: children with OAD, depression, or mixed emotional and disruptive disorder did significantly better in four- to five-times weekly treatment (see Table 4).

We examined the relative benefit of intensive versus nonintensive treatment for children with severe versus less severe psychopathology. First, we grouped children into two severity groups; severe cases ( $n = 84$ ) were defined by CGAS scores of 45 or less at the start of treatment (55 cases), three or more diagnosable disorders (16 additional cases), or a psychoanalytic diagnosis of atypical personality development (13 cases). (This

**TABLE 3**  
Percentage of Cases with Initial Diagnoses of Emotional Disorder with Diagnosable Disorders at the End of Treatment

Diagnoses at Beginning of Treatment	Diagnoses at Termination (%)			
	Emotional Disorder	Conduct Disorder	Other Diagnoses	Any Diagnosis
Simple phobia ( <i>n</i> = 48)	14.6	0	8.3	22.9
Separation anxiety ( <i>n</i> = 58)	15.5	5.2	5.2	25.9
OCD ( <i>n</i> = 34)	29.4	0	0	29.4
OAD ( <i>n</i> = 145)	13.1	1.4	9.7	24.2
Avoidant disorder ( <i>n</i> = 20)	20	0	5.0	25.0
Depression ( <i>n</i> = 65)	18.5	0	6.2	24.7
Emotional + conduct disorder ( <i>n</i> = 22)	4.5	18.2	13.6	36.3
Any emotional disorder ( <i>n</i> = 299)	15.4	2.0	6.4	23.8

Note: Children terminating treatment within 6 months excluded. OCD = obsessive-compulsive disorder; OAD = overanxious disorder.

psychoanalytic diagnosis [A. Freud, 1962] did not indicate that the child had a pervasive developmental or personality disorder, but that he was regarded clinically as "borderline" rather than neurotic.) Children in the severely disturbed group were much more likely to show reliable improvement if they were in intensive treatment rather than psychotherapy (78.7% and 26.1%, respectively). By contrast, less severely disordered children were almost as likely to benefit from nonintensive treatment (68.8% and 57.4%, respectively). A significant three-way interaction of intensity, severity, and reliable improvement in a log-linear analysis confirms the robustness of this finding (likelihood ratio  $\chi^2 = 8.14$ , *df* = 1, *p* < .005). The majority

of severely disordered children, however, remained diagnosable and within the dysfunctional range of CGAS at termination, even when only those treated for more than 6 months were considered (*n* = 60). Of severe cases given intensive treatment, 36.4% were not diagnosable (and had CGAS scores > 70) at termination, as opposed to 6.2% of those in nonintensive therapy (for nonsevere cases, 59.9% and 54.1%, respectively). There was again a significant three-way interaction with treatment intensity (likelihood ratio  $\chi^2 = 3.92$ , *df* = 1, *p* < .05). More of the severe cases moved into the functional CGAS range ( $\geq 68$ ), but although the same pattern emerged, the interaction with intensity did not reach statistical significance (*p* < .1). The

**TABLE 4**  
Mean Children's Global Assessment Scale Change in Intensive (Four or Five Times per Week) and Nonintensive (One to Three Times per Week) Treatments for Children with Different Diagnoses of Emotional Disorder

Diagnoses	Intensive Treatment Mean (SD)	Nonintensive Treatment Mean (SD)	Test of Simple Effects <sup>a</sup>
Separation anxiety	14.7 (12.1) ( <i>n</i> = 48)	16.4 (17.3) ( <i>n</i> = 10)	<i>F</i> < 1, NS
Simple phobia	18.1 (12.0) ( <i>n</i> = 42)	16.2 (12.2) ( <i>n</i> = 6)	<i>F</i> < 1, NS
Overanxious/generalized anxiety disorder	14.0 (10.5) ( <i>n</i> = 117)	7.4 (12.2) ( <i>n</i> = 28)	<i>F</i> <sub>1,307</sub> = 4.59, <i>p</i> < .04
Avoidant	12.3 (9.1) ( <i>n</i> = 20)	— ( <i>n</i> = 0)	—
Obsessive-compulsive	12.4 (12.9) ( <i>n</i> = 29)	10.6 (17.1) ( <i>n</i> = 5)	<i>F</i> < 1, NS
Depression	13.1 (10.3) ( <i>n</i> = 52)	5.6 (14.1) ( <i>n</i> = 13)	<i>F</i> <sub>1,307</sub> = 3.52, <i>p</i> < .06
Disruptive + emotional	15.6 (12.7) ( <i>n</i> = 17)	-1.4 (3.7) ( <i>n</i> = 5)	<i>F</i> <sub>1,307</sub> = 6.66, <i>p</i> < .01

Note: Children terminating treatment within 6 months excluded.

<sup>a</sup>*F* ratios derived from tests of simple effects from intensity × diagnostic group analyses of covariance, controlling for length of treatment. NS = not significant.

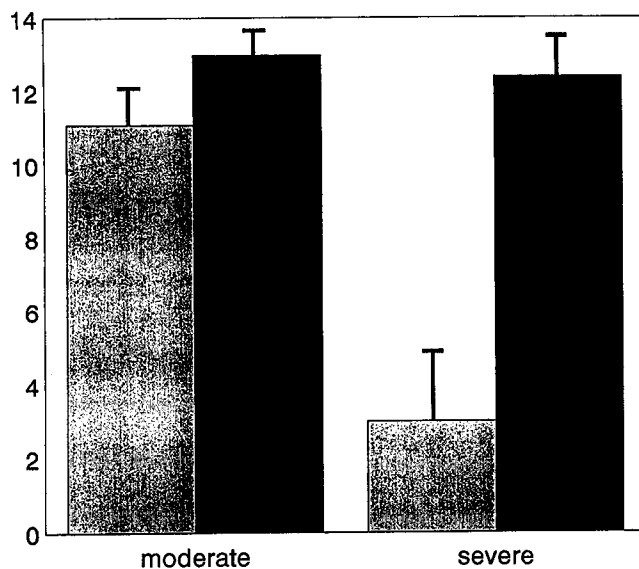
reduction in the likelihood of negative therapeutic effects was as important as the enhancement of positive ones. More than half (56.5%) of the children with severe disorders in the nonintensive treatment group showed no improvement or got worse, whereas only 15% of severely disturbed children in the intensively treated group did so. Again, there was little difference in the likelihood of negative outcomes for less severe disorders (25.5% and 16.7%). The significance of this effect was confirmed by the three-way interaction between severity, intensity, and negative outcome in a hierarchical log-linear analysis ( $\chi^2 = 5.08$ ,  $df = 1$ ,  $p < .03$ ).

The importance of intensity was equally clear when the extent of CGAS change was contrasted. An ANCOVA, controlling for initial CGAS level, yielded a significant interaction between severity of disorder and intensity of treatment ( $F = 5.39$ ,  $df = 1,347$ ,  $p < .02$ ). The mean changes in CGAS, adjusted for initial CGAS level, are shown in Figure 1.

Severely disturbed children benefit very little from nonintensive treatment, and intensive treatment is hard to justify in terms of the measures used here for less severely disturbed children.

Early Terminations

Fifty-three children (15%) terminated treatment within 6 months. These children were likely to be



**Fig. 1** Children's Global Assessment Scale (CGAS) change for moderately and severely disturbed children in nonintensive (□) or intensive (■) treatment, adjusted for initial CGAS level.

older ( $F = 5.9$ ,  $df = 1,350$ ,  $p < .02$ ), to have a diagnosis of depression ( $F = 11.43$ ,  $df = 1,350$ ,  $p < .001$ ), not to have a diagnosis of anxiety disorder ( $F = 4.12$ ,  $df = 1,350$ ,  $p < .05$ ), and not to have a mother in psychoanalytic treatment ( $F = 7.67$ ,  $df = 1,350$ ,  $p < .01$ ). Multivariate analysis (stepwise discriminant function), however, yielded disappointing results, in that only 9 (17%) of the 53 children terminating prematurely could be accurately predicted on the basis of these variables. The prediction did not improve when younger and older children, or the three major diagnostic groupings, were considered separately.

Prediction of Outcome

We attempted to predict the magnitude and direction of CGAS change, using demographic, clinical, and treatment variables, with a stepwise multiple regression procedure. Only the 300 children whose treatment lasted at least 6 months were included. The final regression equation accounted for 31% of the variance ( $F = 11.69$ ,  $df = 11,287$ ,  $R = .56$ ,  $p < .001$ ) (see Table 5).

The strongest predictors of good outcome were relatively low CGAS score at assessment, longer treatment, and relatively good psychological functioning (Global Assessment of Functioning score) in the mother at the child's referral. We confirmed these predictors by randomly splitting the sample and performing the regression analysis independently for each group of 150 children. Both regressions were significant and very similar predictors emerged.

To establish whether these predictors were equally appropriate for the three diagnostic groupings, we used the predictors in Table 5 in standard multiple regressions and contrasted these with stepwise multiple regressions using all variables, for the three groups separately. We found that, although a comparable proportion of the variance could be accounted for in each diagnostic subgrouping using the variables in Table 5, this proportion was substantially increased within the groups of children with depressive disorders or specific anxiety disorders when additional predictors specific to the group also were included. The stepwise regression equation for the depressed group accounted for 55% of the variance, a statistically significant increase in  $R^2$  ( $F_{inc} = 7.00$ ,  $df = 7,63$ ,  $p < .001$ ). In addition to the variables listed in Table 5, predictors of poor outcome included the presence of conduct disorder ( $p < .001$ ), encopresis ( $p < .001$ ), personality disorder

TABLE 5

Prediction of Improvement in Adaptation by Stepwise Multiple Regression Analysis for Cases Continuing beyond 6 Months ( $n = 299$ )

	Regression Coefficient ( $b$ )	Standardized Regression Coefficient ( $\beta$ )	F Value for Variable
CGAS at assessment	-0.36	-0.23	18.06***
Length of treatment	12.8	0.21	17.97***
Mother's GAF score	0.29	0.23	17.17***
Child's age	-0.62	-0.21	16.10***
Child's IQ	0.13	0.18	11.80***
Simple phobia	4.72	0.15	9.06***
Mother antisocial	-8.68	-0.13	7.35**
Mother anxious	3.90	0.13	6.90**
Poor peer relations	-3.90	-0.13	6.27*
Child from AFC nursery	6.00	0.11	4.82*
Mother treated at AFC	5.38	0.10	4.08*

Note: CGAS = Children's Global Assessment Scale; GAF = Global Assessment of Functioning; AFC = Anna Freud Centre.

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ .

in the mother ( $p < .03$ ), and being an only child ( $p < .0001$ ). Intensive parent guidance before commencing treatment was a predictor of good outcome ( $p < .05$ ). Some variables in Table 5 did not predict outcome for the depressed group; these were initial CGAS score, age of child, the presence of phobic symptoms, psychotherapeutic treatment of the mother, and attendance at the Centre's nursery.

The stepwise regression equation for the group with specific anxiety disorders accounted for 59% of the variance, which represents an increase in  $R^2$  of 23% over that obtained using the predictors in Table 5 ( $F_{inc}=4.5$ ,  $df=10,83$ ,  $p < .001$ ). Additional predictors of good outcome specific to this group were a low Global Assessment of Functioning score in the father ( $p < .001$ ), but no diagnosis of personality disorder in the father ( $p < .01$ ), mother having received psychoanalytic treatment ( $p < .03$ ), female gender ( $p < .03$ ), and no serious medical history in the child ( $p < .05$ ). Length of treatment and attendance at the Centre's nursery school were not significant predictors in this group with specific anxiety disorders.

## DISCUSSION

The results of the study suggest that emotional disorder responds relatively well to psychoanalytic treatment. The large majority of children no longer had any disorder after an average of 2 years' treatment. The estimates of improvement compare favorably with what is known about the natural history of many of

the disorders included in the study (Cantwell and Baker, 1989; Husain and Kashani, 1992), although sampling, attrition, and other methodological problems make it difficult to contrast groups from different studies. In the Cantwell and Baker (1989) study, approximately half of the children followed up still had some emotional disorder diagnosis 4 years later, and of the remainder some had another disorder such as a conduct disorder. Only between one quarter and one half were free of diagnosable symptoms at follow-up. In this study, some disorders known to be relatively persistent (e.g., OAD, OCD) responded well to psychoanalysis. The disorder that showed most improvement, simple phobia, is known to have a high spontaneous remission rate, but it is interesting that these children did well in treatment even when the phobic disorder was accompanied by other diagnosable symptoms, such as generalized anxiety or depression. Depressed children and adolescents in general, while not necessarily diagnosable at the end of treatment, were less likely than others to move into the functional group in terms of CGAS score.

Children younger than 11 years were more likely to show improvement. The older children were as likely to show reliable change but less likely to lose their diagnosis or their caseness on the CGAS. This finding is consistent with other reports of inpatient (Berg and Jackson, 1985) and outpatient treatment outcome for children (e.g., Waldron, 1976), and with meta-analyses where therapy effect sizes are sometimes larger for younger children (Weisz and Weiss, 1993).

The finding also mirrors our previous observation (Fonagy and Target, 1994) that younger children with conduct disorders are more likely to respond positively to psychodynamic treatment.

There was no difference in improvement rates between our broad, hierarchical diagnostic groupings of depressive disorders, generalized anxiety disorders, and specific anxiety syndromes. However, there were differences between children according to the presence or absence of more specific diagnoses: those with simple phobias were likely to have lost not only this but any other diagnosis by termination; those with depressive disorders were less likely to move into the functional range on the CGAS. The differences between diagnostic groups could not be accounted for in terms of age. This parallels our previous finding that anxiety symptoms increased the likelihood of positive outcome in disruptive children. It may be relevant that, as in previous studies (e.g., Kovacs and Gatsonis, 1989), approximately half of the children in the depressed group also had diagnoses of anxiety disorders. It has been found that comorbidity of anxiety and depression is associated with greater severity of both disorders (Bernstein, 1991). However, in this study, CGAS levels at referral were not lower in the depressed group, and the severity ratings of their individual disorders were not generally higher. It is likely that motivational factors in both child and parents were important; just as anxiety may help children to become engaged in a treatment, the presence of depression may reduce the likelihood of establishing a good treatment alliance. This suggestion is consistent with the higher rate of premature termination among the depressed group.

Our results support the usefulness of intensive treatment for certain disorders, as did Heinicke's classic study (Heinicke and Ramsey-Klee, 1986), which showed that intensive psychotherapeutic treatment was more effective in treating children with learning difficulties. In our study, intensive treatment was associated with an increased likelihood of significant improvement and with larger changes. Although the intensively and nonintensively treated children differed on a number of parameters at the outset, these did not account for the significant differences observed. When we controlled for length of treatment, age, and initial CGAS level, the significantly superior outcome of intensive treatment remained. Of the diagnostic categories, children with OAD, depression, or mixed emotional and

conduct disorder seemed particularly likely to benefit from four- or five-times weekly treatment. Generally, the more severe the disorder, the better the justification for intensive treatment appeared to be.

Although the superiority of intensive treatment was apparent on all our measures of outcome, the results suggested that reducing *negative* outcomes associated with the nonintensive treatment of severely disturbed children may be the most important consideration. This is highly important clinically, as nonintensive psychotherapy has become the de facto treatment of choice for many children comparable with our severely affected sample. The relatively poor outcome associated with nonintensive treatment of this group is disappointing. By contrast, we were unable to show superiority of intensive treatment for less severely or pervasively impaired children. Most children in this group had diagnoses such as simple phobias and SAD which were relatively likely to remit spontaneously (Cantwell and Baker, 1989; Husain and Kashani, 1992). It could be argued that treatment intensity had no impact on these diagnoses because the process of change was developmental rather than psychotherapeutic. The rates of improvement were nevertheless superior to those reported in studies of the natural history of these disorders. It may be that the therapeutic relationship facilitated a natural process of remission and possibly prevented the appearance of new symptoms (which has been found to occur frequently in untreated children), but this did not depend on intensive input.

Early terminations occurred less often than was the case with disruptive disorders treated at this Centre (Fonagy and Target, 1994). As might be expected from the negative and conflicting findings on attrition shown in meta-analyses (Weisz and Weiss, 1993), it proved difficult to predict which children were likely to withdraw from treatment. Older or depressed children were more likely to terminate before 6 months. The presence of anxiety, and the mother's commitment to this form of intervention, enhanced the likelihood of the child staying in analysis. Neither remission nor worsening of symptomatology appeared to be a major factor in early termination. Unlike the observations of factors associated with premature termination in children with conduct disorder (Kazdin, 1990b), we did not find that disruptive behavior, socioeconomic disadvantage, or parental psychopathology predicted attrition in this



group. We did, however, find with Kazdin that depression in the child was associated with early termination.

A number of demographic, clinical, and treatment variables helped to identify children who were most likely to improve in psychoanalysis. Children with lower initial levels of CGAS improved more, a predictable finding consistent with regression toward the mean. Using a stepwise procedure, in looking for further predictors, we controlled for this by entering initial values of CGAS as a covariate.

The association of longer treatment with good outcome is consistent with a dose-effect relationship between number of sessions and treatment outcome (Howard et al., 1986). The retrospective nature of this study confounds treatment length and time between assessments and, therefore, spontaneous developmental changes. However, it is important to underscore that length of treatment and treatment intensity (i.e., number of sessions per week) appear to have separate and specific effects on outcome. The effect of treatment intensity, for example, was restricted to certain diagnoses, while treatment length predicted good outcome for the emotional group in general.

The mother's psychiatric history and status had a complex association with outcome. When we controlled for mother's overall adjustment, the presence of anxiety in the mother, surprisingly, predicted good outcome. This finding replicates the observation in our previously reported sample of children with disruptive behavior (Fonagy and Target, 1994). It is likely that these mothers had a better understanding of the child's need and played a more active part in ensuring the child's participation in the treatment process. The positive influence of mother's concurrent treatment may also relate to this and supports Kazdin and coworkers' (1992) observation concerning the importance of simultaneous treatment for parents. While maternal anxiety had a positive effect, a history of antisocial personality disorder or behavior (drug or alcohol addiction, criminality, violence within the family) in the mother predicted poorer outcome. It is likely that the child's capacity for forming strong and secure attachments would have been impaired by such a history (Kaufman and Zigler, 1989). In the few cases in which such problems were current, the child's treatment probably suffered direct interference from unreliable parenting.

Younger children benefitted significantly more from treatment than older children. This may in part reflect the better prognosis of emotional disorder with earlier onset (e.g., Agras et al., 1972; Miller et al., 1972). Beyond this, the strength of the association between age and outcome, controlling for severity of disturbance in the child and mother, as well as treatment length, is in line with the generally held belief among psychoanalytically inclined clinicians (e.g., Sandler et al., 1980, pp 86-87) that younger children, in whom psychic structuralization is not yet complete, have greater potential to benefit from insight-oriented treatment. Similarly, children with relatively high intelligence would be expected to be more responsive to interpretative treatment, and our finding that higher IQ predicted better outcome is consistent with this. Intelligence also has been identified as part of a general resilience factor (Kandel et al., 1988). However, previous follow-up studies (Berg and Jackson, 1985) have given conflicting results on IQ as a prognostic factor in treatment outcome with former school-phobic children, and our previous study (Fonagy and Target, 1994) found no association between IQ and treatment outcome in children with disruptive disorders.

It is interesting to note that the child's previous attendance at the Centre's preschool day-care program was associated with good outcome for emotionally disordered children, just as it was for children with disruptive behavioral problems. The relationship experiences children had encountered in this nursery may have helped them to overcome previous adverse attachment experiences. Poor peer relations suggest continuing impairment of the capacity for attachment, an obstacle in the path of establishing a productive therapeutic relationship.

The above predictors applied to the entire emotionally disordered group. We were also able to identify specific predictors of improvement within the three subgroups, which allowed us to account for more than half the variance in treatment outcome. Among children with depressive disorders, intensive parent guidance before commencing treatment appeared to be of particular value. In this group, an additional disruptive disorder, or encopresis, were negative treatment indicators. These may be patterns of comorbidity associated with depression which are difficult to treat psychotherapeutically. Similarly, we speculate that having no siblings creates particular difficulties for a de-

pressed child, who may already be isolated. We accounted for 59% of the variance outcome for children with specific anxiety disorders (SAD, OCD, avoidant disorder, or phobias), with some predictors specific to this group. Just as maternal psychiatric history was associated with good outcome in the entire emotionally disordered group, psychiatric impairment in the father was a positive predictor, for this subgroup, as long as it did not involve personality disorder. Mother having experienced psychoanalytic treatment was also positively associated with improvement. These factors probably reflect parental motivation and understanding of the child's need of help. A history of serious or multiple illnesses, disabilities, surgical operations, or accidents in the child was associated with low improvement. These children may have had more profound anxieties and relationship difficulties than did other children with these diagnoses, following serious illnesses and hospitalization. Female gender also was found to be associated with good outcome in this group; this is consistent with the meta-analytic findings of Casey and Berman (1985) and Weisz et al. (unpublished), but it is interesting that we did not find it to be a significant predictor for the emotionally disordered group as a whole.

There are serious limitations to retrospective studies of this kind (Fonagy and Target, 1994). Among the most important are nonrandom assignment of patients, the lack of untreated controls, restriction to chart-based information, the confounding of length of treatment with the interval between assessments (spontaneous remission), the unrepresentativeness of the sample, and unknown bias from early dropouts. Notwithstanding these limitations, the integrity of our database is relatively high. The original clinical records were systematic and constantly monitored, and data extraction was reliable and guided by clear operational criteria. The powerful and replicable prediction of success rates from the variables coded also attests to the soundness of the data.

Our findings generally support the value of intensive psychodynamic treatment. Intensive treatment appears to have a substantial, beneficial impact on emotional disorder where this disorder is severe and accompanied by other diagnoses or personality pathology in the child. In contrast, we sound a cautionary note on the practice of once- or twice-weekly psychotherapy for children with severe or multiple pathologies; in this

study, nonintensive treatment resulted in little or no improvement in half of these cases. There was also evidence that children with generalized anxiety disorders, depressive disorders, or concurrent disruptive disorders responded significantly better to intensive therapy. However, while children with milder or circumscribed symptoms improved in psychotherapy more than would be expected from the natural history, this improvement was not enhanced by greater length or intensity of treatment.

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