The Efficacy of Psychoanalysis for Children: Prediction of Outcome in a Developmental Context

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ABSTRACT

Objective: This is the third report from a chart review of 763 cases of child psychoanalysis and psychotherapy at the Anna Freud Centre. This paper examines the way in which the age of a child or adolescent at the time of treatment in psychoanalytic psychotherapy relates to the outcome of that treatment. **Method:** One hundred twenty-seven children were selected from each of three age bands (younger than 6 years, 6 to 12 years, and adolescents); they were matched on broad diagnostic grouping, gender, socioeconomic status, global adaptation (Children's Global Assessment Scale), and frequency of sessions. Outcome was indicated by diagnostic change and clinically significant change in adaptation. **Results:** Younger children were more likely to show significant improvement. Children younger than 12 benefited from intensive (four or five times weekly) treatment more than from nonintensive (one or two times weekly) treatment; this was not true of adolescents. There were interactions between certain diagnostic categories, age, and outcome. Predictors of good and poor outcome were different for the three age groups, further highlighting the importance of a developmental perspective. **Conclusions:** Within the limitations of a retrospective design, this study suggests that in psychodynamic treatment, younger age is an advantage and developmental factors considerably affect the outcome of this form of therapy. *J. Am. Acad. Child Adolesc. Psychiatry*, 1994, 33, 8:1134–1144. **Key Words:** child age, child psychoanalysis, child psychotherapy, chart review, treatment outcome.

There has been little research on the influence of age on treatment outcome in childhood psychiatric disorders, and the work that does bear on this issue yields conflicting findings.

Several studies have assessed the later adjustment of children treated for school refusal (Berg and Jackson, 1985; Miller et al., 1972) and found that younger children had a better prognosis. Weisz et al. (1987), in their meta-analysis of outcome studies of child

treatments, reported a main effect of child age; children aged 4 to 12 years were found to respond more positively to treatment than adolescents (13 to 18 years). The mean effect sizes were 0.92 and 0.58, respectively ($p < .05$). There was a correlation of $-.21$ between child age and therapy effect size across 163 studies ($p < .05$). A main effect of age on treatment outcome has not been found in other meta-analyses of outcome studies (Casey and Berman, 1985; Weisz, Weiss, Morton, Granger, Han, unpublished, cited in Weisz and Weiss, 1993) or of clinic-based treatment (Weisz et al., 1992b). Some individual studies have looked for an effect of age on outcome in treated cases and have similarly found no evidence of this. Roberts (1975), for instance, followed up a sample of 131 children who had been hospitalized for school phobia 5 to 18 years earlier. Although he traced fewer than half of the cases, it is of interest that all still suffered from anxiety disorders, and age of onset was unrelated to persistence of maladjustment.

In contrast to the suggestion that younger children have better treatment outcome, there is evidence that

adolescents respond more positively to cognitive-behavioral treatment. Durlak et al. (1991) have reported a meta-analysis of 64 studies of cognitive-behavioral treatment for children aged 4 to 13 (two thirds treated for externalizing disorders). They found some evidence to support the idea that older children, more advanced in cognitive development, benefit more from this form of treatment; the mean effect size for 11- to 13-year-olds was 0.92, while 5- to 7-year-olds and 7- to 11-year-olds showed effect sizes of 0.57 and 0.55, respectively. Similarly, Weisz et al. (1992a) have reported a meta-analysis of six studies of nonclinical depressive symptoms, in which adolescents were found to respond significantly better to cognitive-behavioral interventions than did children younger than 12. This difference was increased at follow-up, when the remaining benefit to children younger than 12 was found to be negligible.

There are indications that age may interact with other variables in its relationship to treatment outcome. Weisz et al. (1987) found that although there was no interaction between age, outcome, and either problem type or type of therapy, there was an interaction with therapist expertise. Essentially, professional therapists were equally effective with patients of all ages (the correlation between child age and effect size was 0.11 [not significant] for professional therapists). However, graduate students and paraprofessionals were more effective with younger children ($r = -.31$ and $-.43$, respectively, $p < .05$ in both cases). Much the same result was found in the later meta-analysis by Weisz et al. (1992b).

The present study aims to examine (1) the effect of age on the outcome of psychodynamic treatment of children and adolescents and (2) possible interactions of age effects with other variables such as diagnostic group, therapist experience, and gender. There are no data available to indicate the likely response of children of different ages to dynamic psychotherapy. Whereas some writers believe that preschool children do not have the cognitive sophistication to benefit from insight-oriented therapies, others particularly recommend dynamic therapy for this group. Controversy also surrounds the suitability of adolescents for psychodynamic therapy. Traditionally, adolescents have been regarded as relatively poor responders (A. Freud, 1958), but more recent practice parameters do not include this caution (Laufer and Laufer, 1989).

METHOD

Sample

The sample was drawn from 763 closed treatment files at the Anna Freud Centre, representing 90% of all cases treated. Seventy-six percent of these cases received psychoanalysis four or five times weekly, and the remainder received psychotherapy one to three times weekly, from child analysts trained in Miss Freud's approach (Sandler et al., 1980). The sample, measures, and statistical procedures have been described in more detail in our previous reports (Fonagy and Target, 1994; Target and Fonagy, 1994).

Measures

The measures on each case fall into five categories: (1) Demographic information on the child and family was obtained. (2) *DSM-III-R* Axis I and II diagnostic classifications were made separately for the past, the time of referral, and termination. The reliabilities achieved were in line with those obtained at other centers, between .5 and .8 (median κ .7). (3) Level of functioning was rated independently for referral and termination on the Children's Global Assessment Scale (CGAS) (Shaffer et al., 1983). Interjudge reliability of the CGAS ratings was satisfactory ($r = .77$, and $r = .88$ for change scores). (4) Clinical information included separations, medical history, behavior and attainment at school, IQ, previous treatment, and psychiatric histories and current functioning of the child's parents (GAF score). (5) Treatment information included referral, session frequency, length of treatment, change of therapist, reason for termination, therapist gender, and therapist seniority. Data were recorded on a standardized form with operational definitions for each variable. The reliability of all data collected was checked against a criterion of 95% agreement.

Four criteria for improvement were used: (1) no diagnosable psychiatric disorder and an adaptation level rating above 70; (2) CGAS score above 68 at termination, based on Jacobson and Truax's (1991) index of the weighted relative likelihood of being in the functional or dysfunctional population; (3) statistically reliable change in adaptation level, based on Christensen and Mendoza's (1986) formula (This indicates 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 of 10 or more points.); and (4) change in CGAS score, used as a continuous variable in predictions of the extent of improvement.

Statistics

We used the BMDP suite of statistical programs (Dixon, 1988). Shared variance between predictor variables was reduced by a principal components analysis with varimax rotation on 80 variables; this produced 58 relatively independent predictors. We contrasted groups using analysis of variance and covariance, or cross-tabulation procedures. Standard and stepwise multiple regression, and discriminant function analysis, were used to predict favorable outcome. The interaction of three or more categorical variables was modeled using hierarchical log-linear analysis.

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

Description of Sample and Derivation of Matched Groups

The children were divided into three age ranges, corresponding to the grouping of cases at the Anna Freud Centre into "under fives" (in practice, younger than 6 by the time treatment starts), children between 6 and 12 years ("latency"), and adolescents (12 to 19).

Matched groups were created by a computer algorithm which individually selected children from each of the two older age groups, matched with cases in the youngest group. The matching criteria included same gender, socioeconomic status within one category, same broad diagnostic grouping (anxiety/depressive disorders; disruptive disorders; other disorders; no diagnosable disorder but CGAS below 70), CGAS score within 5 points, and same intensity of treatment (one to two or four to five sessions per week).

In each age group 101 cases were perfectly matched using the above criteria. Three further rounds of matching, relaxing the criteria on CGAS (a maximum of 10 points difference allowed), social class, or treatment intensity, added an additional 26 matched cases to each group. On the variables of gender and diagnostic category, the three groups were identical. Fifty-nine percent of each group were male; 59% were in the emotional disorders category, 18% in the disruptive disorders group, 13% in the other diagnoses group, 10% in the no diagnosis group. Between 82% and 86% of cases in each group were treated intensively, the average social class category was between classes I and II (mostly professional middle classes), and the mean CGAS score was between 56 and 57 in each group. No difference between any pair of age groups on any variable approached statistical significance.

Table 1 shows some other demographic and treatment characteristics of the matched children; here some significant differences do appear. More adolescents came from "broken" families and more children younger than 6 years were treated by trainees. Adolescents were most likely to be considered to have "dropped out" of treatment (i.e., ended it without the therapist's agreement), and latency children were least likely to have done so; the mean length of treatment in each group reflects this.

The diagnoses assigned to cases in each age group were compared, to examine differences after matching for broad categories. As might be expected, among emotional group diagnoses, separation anxiety disorder and sleep disturbance (mostly nightmares) were more frequent in the children younger than 6 years of age, obsessive-compulsive disorder and depressive disorders among adolescents. Similarly, oppositional defiant disorder and attention-deficit hyperactivity disorder were treated mostly in children younger than 12 years, while conduct disorder and antisocial behavior occurred predominantly among adolescents. Among the "other" category diagnoses, reactive attachment disorders and encopresis were mostly found in children younger than 6 years, while tics and personality disorders (both rare) only occurred in the older groups.

RESULTS

Rates of Improvement

Rates of improvement on the three categorical outcome criteria are shown in Table 2, together with the figures on negative outcome (staying the same, or deterioration in functioning).

On every criterion, the likelihood of improvement during treatment declined with age. Equivalent figures for those children who remained in treatment for a minimum of 6 months showed 5% to 10% higher rates of improvement. For each criterion except that of negative outcome, differences between the three age groups remained significant after the exclusion of children who terminated prematurely.

The mean change in CGAS level during treatment is shown for each group in Table 3; mean changes are also shown for those children who continued in treatment for more than 6 months.

Diagnostic Group

Children with emotional disorders generally improved more than others, and those with disruptive disorders did less well. For all three categorical outcome measures, the effects of age group and diagnostic group were both highly significant. On the first criterion, no longer warranting a diagnosis at termination, there was a significant three-way interaction between these effects and caseness at termination (likelihood ratio $\chi^2 = 10.10$, $df = 4$, $p < .05$). The interaction reflected a very high rate of improvement in diagnoses outside the emotional and disruptive categories, in the 6 to 12 age group.

TABLE 1

Some Demographic and Treatment Characteristics of Children in Each Matched Age Group

	2–5.11	6–11.11	12–18	Statistic
Mean IQ (SD)	114.0 (17.0)	114.8 (18.2)	113.9 (16.0)	$F < 1$
% Broken families	18.1	19.7	26.0	$\chi^2 = 6.36$, $df = 2$, $p < .05$
% Treated by trainees	77.2	63.0	66.9	$\chi^2 = 6.36$, $df = 2$, $p < .05$
% Terminating within 6 mo	18.1	11.0	25.2	$\chi^2 = 8.60$, $df = 2$, $p < .02$
Mean length of treatment	1.64	2.28	1.67	$F = 7.04$, $df = 2, 371$, $p < .001$
[Range]	[1 mo–10.3 yr]	[1 mo–12 yr]	[1 wk–13.8 yr]	
(SD)	(0.64)	(0.66)	(0.77)	

TABLE 2
Percentage of Children in Each Age Group showing Improvement or Negative Outcome

	2–5.11 (n = 127)	6–11.11 (n = 127)	12–18 (n = 127)	Statistic
No diagnosis at term (CGAS ≥70)	55.9	45.7	33.1	χ^2 = 13.40, df = 2, p < .002
Moved into functional group (CGAS ≥68)	62.2	56.7	40.2	χ^2 = 13.40, df = 2, p < .002
Reliable improvement in CGAS (≥10 pts)	63.8	54.3	44.1	χ^2 = 9.91, df = 2, p < .001
CGAS same or lower	16.5	15.7	29.1	χ^2 = 8.80, df = 2, p < .02

Note: CGAS = Children's Global Assessment Scale.

Treatment Intensity

To examine the importance of treatment intensity (frequency of sessions), we compared rates of reliable improvement in CGAS, within each age group and level of treatment intensity. The proportion of cases showing an improvement in CGAS of 10 or more points is shown in Table 4.

The results in Table 4 suggest the possibility that children in the younger two age groups benefit more from intensive than from nonintensive treatment. However, only the two-way interaction between age group and reliable improvement was significant in a log-linear analysis (partial χ^2 = 8.33, df = 2, p < .02). It seemed likely that the very small group sizes in nonintensive treatment reduced the power of this analysis to detect an effect of intensity or any interaction between intensity and age group. The three-way match that created the comparison groups included a very low percentage of nonintensive cases because of the very small number of children younger than 6 in nonintensive treatment. In the full sample, about a third of adolescent cases were in nonintensive therapy. To obtain a more representative sample of older children, and to examine the possible interaction of age group and intensity more fully, we selected further

matched samples, using only the adolescent and latency age groups.

Two groups of 182 children and adolescents from each of the 6- to 12-year and adolescent groups were selected, using the same matching criteria as before. (There were no significant differences between groups on any matched variable.) We then repeated the analysis in Table 4 to contrast these groups. The results were consistent with the suggestion raised previously, that adolescents do not show the greater response to intensive treatment found in younger children. When adolescents were compared with children aged 6 to 12, 34.4% of latency children showed reliable improvement in nonintensive treatment, while 65.6% of the adolescents did. For those in intensive therapy, the rates of improvement were very similar in the two age groups (52.2% and 50.9% reliably improved, respectively). A significant three-way interaction between reliable change, age group, and intensity was confirmed by log-linear analysis (likelihood ratio χ^2 = 4.77, df = 1, p < .03).

Prediction of Outcome

An attempt was made to predict those children who withdrew from treatment within 6 months and were

TABLE 3
Mean Changes in CGAS Score within Each Age Group and for Those Who Remained in Treatment for at Least 6 Months

	2–5.11	6–11.11	12–18	Statistic
Mean change in CGAS	13.33	11.43	8.59	F = 6.72, df = 2, 378, p < .002
[Range]	[−13–48]	[−9–40]	[−20–38]	
(SD)	(10.95)	(10.00)	(10.14)	
Mean change, excluding dropouts	14.96	12.11	9.74	F = 6.32, df = 2, 309, p < .002
[Range]	[−7–48]	[−9–40]	[−20–32]	
(SD)	(10.86)	(9.98)	(10.39)	
	n = 104	n = 113	n = 95	

Note: CGAS = Children's Global Assessment Scale.

TABLE 4
Percent Showing Reliable Improvement in CGAS during
Nonintensive and Intensive Treatment, after Excluding Cases
Terminating within 6 Months

	2–5.11	6–11.11	12–18
Nonintensive	53.8	43.7	63.6
	(n = 13)	(n = 16)	(n = 11)
Intensive	73.6	60.8	51.2
	(n = 91)	(n = 97)	(n = 84)

thus excluded from many of the analyses. A stepwise discriminant function analysis was performed for the three matched age groups separately, using all variables recorded at assessment, but in none of the groups was it possible to identify predictors of attrition. In the youngest age group, none of the dropouts could be identified. In the latency age group, prediction was marginally better at 20% of dropouts correctly classified. In this group, having a stress-related disorder and having been in hospital more than once were associated with dropping out of treatment. Again, in the adolescent group, prediction of premature termina- tion was very weak (only 10% of dropouts identified); significant predictors, in addition to those found in the younger age groups, included lower IQ, an impulse control disorder, and milder severity of principal diagnosis.

A stepwise multiple regression procedure was used to predict the magnitude and direction of CGAS change, using demographic, clinical, and treatment variables. Only children whose treatment lasted at least 6 months were included. The first step was to examine variables related to outcome across all age groups; the final regression equation accounted for 37% of the variance (F = 22.58, df = 11,369, p < .001). The variables emerging from this analysis are given in Table 5. The strongest predictors of good outcome were relatively low CGAS score at assessment, remaining in treatment (beyond the first 6 months) until a mutually agreed termination, and relatively good psychological functioning (Global Assessment of Functioning score) in the father at the child's referral.

To establish whether these predictors were equally appropriate for the three age groups, this group of predictors was used in separate standard multiple regressions; these were then contrasted with stepwise multiple regressions using all variables, for the three groups

separately. It was found that, although between 32% and 48% of the variance could be accounted for in each age group using the variables applying across age groups, this proportion was increased when additional predictors specific to each group were also included (Table 5).

The stepwise regression equation for the group of children younger than 6 years accounted for 55% of the variance, a statistically significant increase in R^2 (F_{inc} = 5.09, df = 3,92, p < .005) over that obtained with the variables for all age groups. It was similarly possible to improve significantly the prediction of outcome within the latency and adolescent age groups (R^2 = .43, F_{inc} = 13.01, df = 1,106, p < .001, and R^2 = .58, F_{inc} = 27.08, df = 2,87, p < .001, respectively).

We also examined the amounts of variance within each age group accounted for by different domains of variables, when these groups of variables were entered into separate stepwise regression analyses. Between 33% and 52% of the variance in outcome within each age group could be accounted for by information known at the child's assessment. Beyond that, clinical variables were by far the most important in predicting outcome for the youngest children, whereas family and treatment variables were of much greater importance for children between 6 and 12 years. All three domains contributed substantial information in the adolescent group.

DISCUSSION

It was possible to account for 37% of the variance in CGAS change, before dividing by age group, among those children who remained in treatment beyond 6 months. The findings will be discussed under three headings: (1) effect of age on outcome; (2) predictors of outcome unaffected by developmental considerations; and (3) age-specific predictors of outcome.

Effect of Age on Outcome

The principal finding of this study is that younger children are more likely to improve in psychodynamic treatment. This cannot be accounted for by differences in dropout rates, gender, social class, adaptation level, diagnostic category, or intensity of treatment. However, the likelihood that a child would show no improvement or would be worse at the end of treatment was no longer significantly related to age after excluding those terminating treatment prematurely.

TABLE 5

Standardized Regression Coefficient (β) for Significant Predictors of Improvement in CGAS Rating during Treatment, for All Cases and Each Matched Group Separately (Cases Terminating within 6 Months Excluded)

Predictor Variable	Standardized Regression Coefficient (β)			
	All Age Groups	<6 yr (n = 104)	6–11.11 yr (n = 113)	≥12 yr (n = 95)
CGAS level at start	−.31***	−.32***	−.30***	−.40***
Treatment prematurely terminated	−.26***	−.27***	−.35***	−.26**
Parents Jewish	.14***	.16*	.16*	.43***
Father's GAF score	.19***	.19*	.21*	
Length of treatment	.17***			.26**
Stress disorder	.13***			
Simple phobia	.13***	.32***		
Age at start	−.12**			−.32**
Child attended AFC nursery	.12**	.21**	.22**	
Father anxious	.09*			.27**
Any school complaint	−.10*	−.18*		
Severe maternal psychiatric history		−.16*	.28**	
Father antisocial behavior				−.38***
Sleep disorder		.22**		
Significant medical history		.21**		
Disruptive at school				−.21*
Poor peer relationships				−.22*
Eating disorder		−.17*		
Maternal suicide attempt(s)				−.22*
Personality disorder				−.19*
History of foster care				.25**
Paternal marital conflict				.21*

Note: CGAS = Children's Global Assessment Scale; GAF = Global Assessment of Functioning; AFC = Anna Freud Centre.
$* p < .05; ** p < .01; *** p < .001.$

The above results could be explained in three ways: (1) higher rate of spontaneous remission; (2) better response to treatment in general; (3) greater accessibility of younger children to psychodynamic intervention. As described previously, the literature does not suggest a better general response to treatment among younger children (Weisz and Weiss, 1993). There is also no clear evidence from studies of the natural history of childhood disorder that younger children are more likely to improve spontaneously over the (average) 2 years of psychodynamic treatment. Longitudinal investigations (Chazan and Jackson, 1974; Cohen et al., 1993; Richman et al., 1982) indicate that between one third and two thirds of children presenting with disorders at any age from 3 years are likely to show significant disturbance some years later.

The differences in improvement rates might be related to differences between the age groups on variables that were not matched between groups. Adolescents were significantly more likely to come from broken families and to be treated by staff members (rather than trainees). Statistically controlling for these variables did not substantially alter the interactions between age and improvement.

It seems likely that the different diagnoses within the broad diagnostic groupings may have been important. Adolescents were more likely to have disorders such as obsessive-compulsive, depressive, or conduct disorders, which have worse long-term outcome than disorders in the same groupings which were more commonly found in younger children (separation anxiety, phobias, oppositional defiant disorder). However, perhaps this does no more than restate our finding: older children suffer from disorders that are generally more resistant to psychodynamic treatment than those found in younger children.

Age group was significantly related to rate of attrition, with children in the 6- to 12-year age range least likely to drop out within 6 months, and adolescents most likely (Table 1). However, it proved extremely difficult

to predict those children who withdrew prematurely from treatment, in any of the three age groups. Identification of those children or families who withdraw from treatment is a serious, as yet unsolved, problem, both for a study attempting to predict psychotherapeutic outcome and, of course, for service providers (Weisz and Weiss, 1993).

The possibility that adolescents may not benefit from more intensive treatment is interesting. In children younger than 12, intensity but not duration of treatment was related to good outcome; for adolescents, the reverse was true: more frequent sessions were not beneficial, but duration of treatment was strongly related to outcome. It appears that adolescents do equally well or better in nonintensive treatment, while younger children improve much more with frequent sessions. This difference in younger children is not accounted for by length of treatment, which is comparable for intensive and nonintensive treatment, or by the assignment of cases to the two models of treatment. The age difference is not clearly predicted by the psychoanalytic literature, where it is usually assumed that intensive treatment has more impact in all age groups. However, some authors (A. Freud, 1958) have cautioned against intensive therapy in adolescence, because the regression and dependence involved runs counter to the usual strong developmental push in adolescence toward independence, action, and separation from parental figures. As Sandler et al. (1980) expressed it, "A special technical problem arises in the treatment of adolescents in that the therapist has to 'fight for the past' because of the adolescent's enormous fear of regression" (p. 87). The present findings seem to support this view.

The results for adolescents are consistent with studies of adult psychotherapy, where treatment of a few months produces symptomatic improvement, but treatment of longer duration is required for modifications in personality or entrenched social difficulties (Howard et al., 1993). We speculate that for younger children the crucial aspect of treatment "dose" was not duration but frequency, for two reasons. On one hand, although these disorders might have persisted without treatment, they were less "structuralized" (integrated with the child's personality) and therefore more accessible to change. On the other hand, younger children required frequent sessions to be able to sustain a new relationship with sufficient intensity to have an impact.

Predictors of Outcome Unaffected by Developmental Considerations

Three positive predictors emerged in every age group: lower initial CGAS level, completion of treatment, and Jewish family. The first would be expected on the basis of regression toward the mean, but is not consistent with the findings of outcome studies in adult psychotherapy. In these studies (reviewed by Luborsky et al., 1993), poorer initial functioning predicted less change. We have some evidence from a previous analysis (Target and Fonagy, 1994) that, among children with emotional disorders, those with more severe and pervasive symptomatology responded very favorably to intensive therapy (which the great majority of the present sample received), but not to less frequent sessions. It may therefore be that, rather than reflecting a greater likelihood of spontaneous remission in the more severe group, this reflects a specific response of severe disorders to intensive psychotherapy.

Children showed less improvement if their treatment had been terminated, after the first 6 months, because of withdrawal by the child/parents or external circumstances. Any therapy outcome will probably be less favorable where the course of treatment has been stopped (Kazdin, 1990). Unfortunately, an unavoidable limitation of this chart review study was the confounding of treatment length and assessment interval, which prohibits the conclusion that more treatment brings better results.

The finding of more improvement in Jewish children probably reflects local factors (the Centre has links with Jewish communities in North London, which might enhance parental motivation). It may also be that these families had stronger religious values than others in the sample, providing their children with greater resilience and family cohesion (Baldwin et al., 1990). In this case, the result could be of relevance to other samples, though not specifically to Jewish families.

Age-Specific Predictors of Outcome

The power of the prediction of outcome was significantly increased, by approximately 10% of the variance in outcome, when the three age groups were examined separately. This implies that developmental processes interact with predictors of suitability for psychodynamic help. Developmental psychopathologists (Cicchetti and Richters, 1993) have shown that experiences

may have very different outcomes, depending on the social context and developmental phase.

Taking a developmental perspective, between ⅓ and ½ of the variance within each age group could be accounted for by information known at the child's assessment. This is a very large proportion of the variance in treatment outcome in comparison with other studies, where commonly around 10% to 20% can be predicted at the assessment stage (Casey and Berman, 1985; Weisz et al., 1987, 1992b). This emphasizes the importance of a complete history at intake, addressing all variables relevant to treatment response.

When subgroups of variables representing the three domains of information (demographic and family, child and clinical, treatment) were used in separate multiple regression procedures, it emerged that clinical variables (such as diagnoses) were by far the most important in predicting outcome for the youngest children, whereas family and treatment variables were of much greater importance for children between 6 and 12 years. All three domains contributed substantial information in the adolescent group. This pattern of results underscores the increased number of issues that come to be entangled with the child's pathology with development, and the consequent increase in the complexity of prediction.

The relationship between broad diagnostic group and outcome was, to some degree, moderated by the child's age. In all age groups, emotional disorders were more likely to resolve than disruptive disorders. This is consistent with studies of natural history (Esser et al., 1990) and with the notorious difficulty of treating disruptive disorders (Werry, 1992). Adolescents with disruptive disorders were particularly unlikely to improve, as one expects from findings reported elsewhere (Cohen et al., 1993) that conduct disorders are more intractable than oppositional defiant disorder.

Disorders not falling within emotional, disruptive, or pervasive groupings were much more likely to be lost in children aged 6 to 12; nearly 80% of latency children were no longer diagnosable at termination in this group. It may be that the diagnoses involved, such as elimination, speech, and specific developmental disorders are most likely to resolve during this age range. The children younger than 6 with "other" disorders sometimes had specific developmental disorders severe enough to present in the preschool period or conditions such as attachment disorders which may

have made them relatively inaccessible to this form of intervention. Another consideration in this age range is that some children were referred (at age 2 or 3) with unusual symptoms such as stereotypies and specific developmental delays, but were found to be suffering from more pervasive disorders as they grew older. This finding, therefore, partly reflects the difficulties of making diagnoses in this age range, particularly on the basis of retrospective information.

A number of specific disorders were related to treatment outcome in the preschool age group, again suggesting an interaction between developmental and psychopathological processes. Preschool stress-related diagnoses (post-traumatic stress disorder or adjustment disorder), phobia, or sleep disorder predicted favorable response. This probably reflects the broadly positive prognosis (spontaneous remission) of these conditions in comparison with other childhood disorders or the same disorders at a later age (Klein and Last, 1989). Alternatively, it is possible that in this age range this group of disorders responds particularly well to the combined approach of individual treatment and parental guidance offered at the Anna Freud Centre. This raises the converse argument that older children with these disorders would benefit more from other forms of therapy, such as a behavioral or family-based systemic approach.

By contrast, feeding disorder predicted relatively poor outcome among the preschool children. These cases (of serious food fads, anorexic behavior in infants, etc.) often involved pervasively disturbed parent–child relationships, and not uncommonly a battling relationship over food between parent and child was carried over into battles with the therapist over treatment, probably compromising the chances of therapeutic progress.

A history of serious medical problems in a preschool child predicted improvement in treatment. While perhaps surprising, this was also found in the full chart review sample (Target, 1993). There is some evidence that a serious medical history makes the child more vulnerable to psychopathology (Cohen et al., 1989). However, it is possible that this history helped the parents to feel positive about presenting their child for help, at an age when parents commonly believe that they should manage the child within the family (they might feel less responsible for the emotional problems). It may also make a young child more receptive to a

psychoanalytic approach by, for instance, giving a focus (medical trauma) for interpretations which is relatively easy for the child to follow and identify with. It might also be that a preschool child who has been hospitalized and treated by professionals is more open to being helped by a therapist than others, who expect help to come mostly from their parents.

A number of aspects of parental mental health emerged as important predictors in the regression analyses for different age groups. A strong predictor of favorable outcome for the two younger groups was good paternal psychological functioning (Global Assessment of Functioning score). In the adolescent age group the predictive indicators of paternal adjustment were more specific: antisocial behavior in the father was associated with poorer outcome, while anxiety disorder in the father and conflict or breakdown in the parents' marriage predicted better outcome. It appears that father's psychological functioning is important generically during early and middle childhood, in supporting the child or the child's treatment. We speculate that a history of anxiety symptoms increases the father's understanding of emotional distress and motivation to support the child's treatment. Antisocial behavior in the father has often been linked to childhood disorder, especially disruptive disorders (Kazdin, 1993), and would also be likely to reduce cooperation with the child's treatment. These findings mirror those for mothers in our previously reported study of emotionally disordered children (Target and Fonagy, 1994) and support recent reports that fathers' mental health can be as important to child psychological functioning as mothers' (Phares and Compas, 1992).

Severe mental illness in the mother was found to predict outcome in opposite ways in the two younger age groups: it was associated with poorer outcome in children younger than 6 years, but *positive* treatment response in the matched group of 6- to 12-year-olds. A history of serious psychiatric illness in the mother has been found in many studies to be associated with mental ill-health in children (Cummings and Davies, 1994; Quinton et al., 1990). One may imagine that, while a history of mild neurotic symptoms might make a parent more understanding toward a young child's distress, major mental illness in a parent probably has the reverse effect. It is likely to involve hospitalization, and impairment of the parent–child relationship when they are together, including high levels of negative

expressed emotion persisting well beyond the acute illness (Hibbs et al., 1991; Schwartz et al., 1990). It may be, however, that while such a history increases the risk of childhood disorder at all ages, the impact on *treatment response* varies with the developmental level of the child.

The treatment of a preschool child is probably particularly affected by distortion of the mother–child relationship, as children of this age usually spend most of their time with the mother, have less access to alternative environments, and may still be too involved in the parental pathology to use the opportunity for a new therapeutic relationship fully. In contrast, children in middle childhood are generally very receptive to new relationships with peers and adults, and they may particularly seek alternative close relationships where the mother–child experience has been very limited or disturbing. The analytic relationship may offer something sufficiently intense and prolonged to amount to a different experience of parenting, enhancing the child's commitment and likelihood of improvement.

Similar considerations may apply to some of the variables emerging as predictors in the adolescent group. Having been in foster care or children's home, or a history of severe marital conflict between the parents (often leading to divorce), was predictive of better therapeutic outcome for adolescents. These situations may lead to a search for a better long-term relationship with a new adult, giving the adolescent far more motivation to engage in the therapeutic work and counterbalancing the push toward independence from parental figures usually found in this age group. Predictors of poor outcome for this group included suicide attempts in the mother (actual suicide in two cases) and antisocial behavior in the father. These may be forms of psychiatric disorder with an additional, specific destructive impact, interfering with the capacity for attachment to and trust in adults, and therefore with this potential for repairing emotional damage through subsequent relationships.

Previous attendance at the Anna Freud Centre nursery school emerged as a predictor of good outcome in children younger than 12. This is a small, psychoanalytically informed nursery which particularly selects children from disadvantaged backgrounds (financial stress, parental psychiatric illness, etc.), or children whose psychological development has already given cause for concern by the age of 2 or 3 years. It is surprising,

therefore, that these children did relatively well in their later analytic treatment. That nursery children were younger does not explain the link, as nursery attendance emerges as a strong predictor even after age has been entered into the equation. One impact of nursery attendance may have been to create a bond between the Centre and the child's family which laid the ground for future trust and cooperation with treatment, underscoring the importance of contextual variables (Fauber and Long, 1991). It may also be that the nursery school succeeded in its aim of providing these children with "models" of positive relationships, which helped them to use the subsequent therapeutic experience.

The presence of serious difficulties in the school setting was found to predict less improvement. There may be a number of reasons for this. The great majority of children were referred either by parents or by medical practitioners. Reporting of concerns by the school, therefore, often meant that the child's disturbance was cross-situational, suggesting greater severity and duration of disorder, together with worse prognosis (Mitchell and Rosa, 1979). It may also be that school problems were less fully addressed and less accessible in dynamic treatment than were difficulties within the child and family. Again, it is noticeable that while school-related problems in general were a negative feature for young children, by adolescence the relevant difficulties were more specific: disturbed peer relationships and very disruptive behavior predicted worse treatment outcome, while learning difficulties, anxiety symptoms, school refusal, and other problems did not. The former features in adolescence, like personality disorder, which was also a negative predictor, may characterize those adolescents with a poorer capacity for forming a productive new relationship with an adult (A. Freud, 1958). They would also be likely to antagonize adults and peers at school, who might otherwise have been in a position to offer help in the social environment.

In conclusion, the results of this study show substantial differences between matched children in different age groups in both the likelihood of response to psychoanalytic treatment and the variables predicting good or poor response. Although the chart review study has serious methodological limitations (retrospective information, nonrandom assignment to treatment conditions, confounding of treatment length and interval

between assessments, unrepresentative sample; see Fonagy and Target, 1994), there does seem to be evidence that, in this form of psychosocial treatment at least, younger age confers an advantage. There are also indications that younger children gain additional benefit from more intensive therapy and that predictors of the outcome of child therapy must be considered within a developmental framework.

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