

Parents' Perceptions of Benefit of Children's Mental Health Treatment and Continued Use of Services

Sarah Horwitz, Ph.D.
Christine Demeter, M.A.
Margaret Hayden
Amy Storfer-Isser, M.S., M.A.
Thomas W. Frazier, Ph.D.
Mary A. Fristad, Ph.D.

L. Eugene Arnold, M.D.
Eric A. Youngstrom, Ph.D.
Boris Birmaher, M.D.
David Axelson, M.D.
Robert L. Findling, M.D., M.B.A.

Objective: The authors examined the association of demographic and clinical characteristics, family history, and type of treatment among children receiving outpatient mental health services and parents' perception of treatment benefit. They also examined whether perceived benefit was related to continued use of services at six-month follow-up. **Methods:** Parents of children age six to 12 years who were first-time patients at one of nine clinics participating in the Longitudinal Assessment of Manic Symptoms (LAMS) study completed the Parent General Behavior Inventory Ten-Item Mania Scale. Parents of children with scores of 12 or higher ($N=1,124$) were invited to participate in a follow-up study, and 621 agreed. During baseline assessment after the first outpatient visit and at six-month follow-up, the parents were asked about children's sociodemographic and diagnostic characteristics and use of services and asked to rate how much their children had benefited from the most recent outpatient treatment. **Results:** Data were available for 573 children. At baseline, parents of 167 (29%) children reported that the treatment provided a lot of benefit, and perceived benefit was related to receiving medication (with or without therapy) versus just therapy, higher scores on functioning, LAMS site, no history of comorbid diagnoses, living with both biological parents, and having no parents or siblings with a prior hospitalization for a psychiatric illness. At six-month follow-up, perceived benefit was related to continued use of services ($p<.001$). **Conclusions:** Medication with or without therapy was perceived as more beneficial than therapy alone. Perceived benefit was strongly related to continued use of treatment. (*Psychiatric Services* 63:793–801, 2012; doi: 10.1176/appi.ps.201100460a)

Childhood mental health problems are prevalent, debilitating disorders, but only half of the children with such disorders receive services (1,2). Those who do receive treatment frequently receive inadequate services (3). Often children come for an evaluation, but do not start treatment, prematurely terminate services, may not adhere to treatment recommendations, or, given the slow diffusion of evidence-based practices into typical community-based services, may not receive an efficacious treatment (4–8).

Given that children rarely make their own treatment decisions, examinations of barriers to mental health treatment usually focus on parental and family factors. Although many theoretical models to describe use of mental health treatment have been proposed, a model by Olin and colleagues (9) for explaining parental engagement has been particularly useful. Using the unified theory of behavior (10,11), they proposed that parent engagement is focused on four primary constructs, including beliefs and expectations, social norms, attitudes, and self-efficacy. Other research has identified barriers to treatment, including structural barriers, such as availability of services, transportation, and insurance, and perceptual barriers, including stigma, denial of need for treatment, and questions about the effectiveness of services (12–20). For families who terminate treatment early, im-

Dr. Horwitz is affiliated with the Department of Pediatrics and the Center for Health Policy, Stanford University, 117 Encina Commons, MC 6019, Stanford, CA 94305 (e-mail: sarah.horwitz@stanford.edu). Ms. Demeter and Dr. Findling are with the Department of Psychiatry, Division of Child and Adolescent Psychiatry, Case Western Reserve University, Cleveland, Ohio. Dr. Findling is also with the Department of Psychiatry, University Hospitals Case Medical Center, Cleveland. Ms. Hayden is with the Department of Pediatrics, Stanford University School of Medicine, Stanford, California. Ms. Storfer-Isser is with Statistical Research Consultants, L.L.C., Perrysburg, Ohio. Dr. Frazier is with the Center for Pediatric Behavioral Health, Cleveland Clinic, Cleveland. Dr. Fristad and Dr. Arnold are with the Department of Psychiatry, Division of Child and Adolescent Psychiatry, Ohio State University, Columbus. Dr. Youngstrom is with the Department of Psychology, University of North Carolina, Chapel Hill. Dr. Birmaher and Dr. Axelson are with the Western Psychiatric Institute and Clinic, Department of Psychiatry, University of Pittsburgh Medical Center, Pittsburgh.

portant factors appear to be concerns about the cultural relevance of services, the families' comfort engaging with services, and the lack of consideration of family preferences when selecting services (5–8).

Family treatment preference is especially important for use of medications, given that many parents, particularly African-American parents, prefer psychotherapy over medication (21–24). Kazdin and colleagues (25), as well as others, have established that parental ratings of the relevance of treatment are related to premature termination (5,21,26). Further, parental beliefs in the likely effectiveness of therapy appear to have a curvilinear relationship to treatment attendance (25).

Attention to parents' perceptions of the benefit of current services has been largely absent from the investigation of barriers, even though the model by Olin and colleagues (9) suggests that parents' involvement in child mental health treatment depends on their perception of benefit. Data suggest that the risk of antidepressants as perceived by parents predicts fewer future child medication visits (21). Similarly, parental expectations are related to perceived barriers to treatment, treatment attendance, and premature termination (24). Data suggest that among adults, patients who strongly preferred counseling but did not receive it were likely to forego treatment completely (23) and that attendance at self-help groups by families of individuals with mental illness was related to perceived benefits (27).

Given the potential importance of parents' perception of benefits early in the treatment process for utilization of child mental health services, we examined family and child characteristics related to perceived benefits of outpatient mental health services for children. In addition, we examined whether perception of benefit after an initial treatment visit predicted continued use of outpatient mental health services during six-month follow-up. Specifically, we tested the hypothesis that parental rating of significant benefit measured early in the care process would be related to use of mental health services at six-month follow-up.

Methods

Parents or guardians of children age six to 12 years who were new patients of outpatient clinics participating in the Longitudinal Assessment of Manic Symptoms (LAMS) study and who spoke English were asked to complete a ten-item questionnaire to screen for elevated symptoms of mania. The Parent General Behavior Inventory Ten-Item Mania Scale (PGBI–10M) assesses hypomanic, manic, and biphasic symptomatology and discriminates bipolar disorder and other diagnoses among youths (28,29). Participation was limited to parents or guardians who spoke English and who did not have a child living in the same household who had been previously screened. Possible PGBI–10M scores range from 0 to 30, with higher scores indicating more manic symptoms. Children with scores of 12 or higher were invited to participate in the longitudinal portion of the LAMS study. In addition, a smaller group of patients with scores of 11 or lower who were roughly matched in real time on age, sex, race, ethnicity, and Medicaid status was selected to enroll in the longitudinal portion of the study. More details concerning participant ascertainment and the rationale for using a cutoff score of 12 on the PGBI–10M are described elsewhere (30,31).

Of the 1,124 children with elevated symptoms of mania, 621 (55%) accepted the invitation to participate in the longitudinal portion of the LAMS study. There were no statistically significant sociodemographic differences (age, sex, race-ethnicity, or insurance type) between children who did and did not enroll in the longitudinal study. A total of 86 parents or guardians of children without elevated symptoms of mania agreed to participate. A child whose family was approached but refused to participate was replaced by another demographically matched youth with a score of 11 or less on the PGBI–10M. Thus 86 children without symptoms of mania were also included in the longitudinal cohort (30).

Baseline assessments were completed after the initial visit to the clinic, and participants who continued to be eligible were seen every six

months. After six months, 678 children (96%) remained eligible, and the 573 (85%) children whose baseline benefit and treatment data were available were included in these analyses.

Children in the LAMS study received treatment as usual, starting with their first visit, at one of the nine clinics associated with four university-affiliated LAMS sites (Case Western Reserve University, in Cleveland; Cincinnati Children's Medical Center; the Ohio State University, in Columbus; and the University of Pittsburgh Medical Center–Western Psychiatric Institute and Clinic). Institutional review boards at each site reviewed and approved all procedures in the protocol. Written informed consent by parents or guardians and assent by participants were obtained before any procedures related to the study were performed.

Baseline assessment

Baseline data were collected during an interview conducted by specially trained research assistants within, on average, 36 days of the initial visit.

Demographic data. Parents or guardians provided information on the child's age, sex, race, ethnicity, parental education, health insurance status, and medical history and on whether the child was living with both biological parents.

Diagnoses. Children and their parents or guardians were administered the Schedule for Affective Disorders and Schizophrenia for School-Age Children–Present and Lifetime Episode (K-SADS-PL) (32) with additional depression and manic symptom items derived from the Washington University in St. Louis Kiddie Schedule for Affective Disorders (WASH-U K-SADS) (33,34). Items to assess nonverbal communication, the child's relationship with others, shared enjoyment, and social-emotional reciprocity according to *DSM-IV* criteria were added to the K-SADS-PL to screen for pervasive developmental disorders. The resulting instrument, the K-SADS-PL-W, is a semistructured interview that assesses current and lifetime psychiatric diagnoses and the time course of each illness.

Unmodified *DSM-IV* diagnostic criteria were used in the LAMS study.

Table 1

Parents' perception of benefits of children's treatment and treatment continuation at six-month follow-up, by sociodemographic characteristic and diagnosis of child at baseline

Characteristic	Benefit						p	Continued treatment					
	Total (N=573)		None or some (N=406)		A lot (N=167)			No (N=138)		Yes (N=435)		p	
	N	%	N	%	N	%		N	%	N	%		
Age (M±SD years)	9.4±1.9		9.4±1.9		9.6±2.0		.37	9.4±1.9		9.5±1.9		.78	
Female	184	32	133	72	51	28	.61	40	28	144	78	.37	
Race-ethnicity							.18					.80	
White	362	63	252	70	110	30		88	24	274	76		
African American	136	24	104	77	32	24		35	26	101	74		
Latino	28	5	16	57	12	43		5	18	23	82		
Other	47	8	34	72	13	28		10	21	37	79		
Insurance							.09					.003	
Not Medicaid	274	48	185	68	89	33		51	19	223	81		
Medicaid	299	52	221	74	78	26		87	29	212	71		
Biological parents in home							.01					.01	
0 or 1	380	68	283	75	97	26		102	27	278	73		
2	180	32	115	64	65	36		31	17	149	83		
Primary diagnosis at baseline							.008					.66	
Bipolar spectrum or psychotic disorder	143	25	98	69	45	32		36	25	107	75		
Depressive disorder	94	16	70	75	24	26 ^a		22	23	72	77		
Anxiety disorder	38	7	22	58	16	42		6	16	32	84		
Disruptive behavior disorder	171	30	136	80	35	21 ^b		47	28	124	73		
Attention-deficit hyper- activity disorder (ADHD)	78	14	46	59	32	41		16	21	62	80		
Other	49	9	34	69	15	31		11	23	38	78		
Comorbid diagnoses							<.001					.68	
No	132	23	76	58	56	42		30	23	102	77		
Yes	441	77	330	75	111	25		108	25	333	76		
Diagnoses (M±SD)	2.5±1.3		2.7±1.3		2.2±1.2		<.001	2.5±1.2		2.5±1.3		.81	

^a Differed significantly from parental perceived benefit for children with ADHD ($p=.03$)

^b Differed significantly from parental perceived benefit for children with bipolar or psychotic disorder ($p=.03$), anxiety disorder ($p=.005$), and ADHD ($p<.001$)

The criteria for bipolar disorder, not otherwise specified, were clarified for the LAMS study to follow the same criteria used in the Course and Outcome of Bipolar Youth (COBY) study (35). All diagnoses were reviewed and confirmed by a licensed child psychiatrist or psychologist.

Medication history. During the interview, the child's parent or guardian provided a complete history of the psychotropic medications prescribed to the child currently or in the past.

Functional assessment. Study interviewers completed the Children's Global Assessment Scale (CGAS) to rate the severity of the participants' current impairment (36). Possible CGAS scores range from 1 to 100, with higher scores indicating better functioning. Unfiltered manic and behavioral dysregulation was assessed by parent report on the PGBI-10M

and the Young Mania Rating Scale (YMRS) (37). Possible scores on the YMRS range from 0 to 60, with higher scores indicating more manic symptoms. Filtered manic symptoms were rated with the K-SADS Mania Rating Scale (38). Unfiltered depressive symptoms were measured by the Children's Depression Rating Scale-Revised (CDRS-R) (39). Possible CDRS-R scores range from 17 to 113, with higher scores indicating more depression. Filtered depressive symptoms were rated by the K-SADS Depression Rating Scale.

Family factors. Parents' self-reports of mental health diagnoses as well as reports of diagnoses of first- and second-degree relatives were collected by using the Modified Family History Screen (40). Parents were asked whether they or any of the child's siblings had received treat-

ment or had been hospitalized for an emotional or behavioral problem. Parental stress was assessed by the Parent Stress Survey, and parental burden was assessed with 13 items from the Parent Stress Survey (41). Possible scores for parent burden range from 0 to 52 and possible scores for parent stress range from 0 to 100, with higher scores indicating more burden or stress.

Use of mental health services. The Services Assessment of Children and Adolescents (SACA) was completed at baseline and at each follow-up by parents or guardians. The SACA documents use of mental health services in inpatient, outpatient, and school settings and provides detailed data with excellent reliability and validity (42-44). Parents were asked to describe the child's most recent outpatient treatment (medication, therapy,

Table 2

Parents' perception of benefits of children's treatment and treatment continuation at six-month follow-up, by clinical and service characteristic of child at baseline

Characteristic	Benefit						Continued treatment				
	Total (N=573)		None or some (N=406)		A lot (N=167)		No (N=138)		Yes (N=435)		p
	N	%	N	%	N	%	N	%	N	%	
Outpatient treatment											<.001
Therapy only	211	37	172	82	39	19	56	27	155	74	<.47
Medication only	174	30	114	66	60	35	42	24	132	76	
Medication and therapy	188	33	120	64	68	36	40	21	148	78	
CGAS score (M±SD) ^a	54.9±10.3		53.9±10.2		57.5±10.0		54.3±10.5		55.1±10.2		.42
CGAS score ≥51											
No	213	37	169	79	44	21	51	24	162	76	.97
Yes	357	63	236	66	121	34	86	24	271	76	
CDRS-R score (M±SD) ^b	34.8±11.0		35.6±11.0		32.8±10.5		34.2±9.9		35.0±11.3		.44
Young Mania Rating Scale score (M±SD) ^c	16.8±9.3		17.2±9.3		15.8±9.2		15.8±8.6		17.1±9.5		.15
PGBI-10M score (M±SD) ^d	12.9±7.2		13.0±7.4		12.7±7.0		13.7±7.6		12.7±7.1		.16
Elevated mania symptoms											.11
Negative (PGBI-10M score ≤11)	73	13	46	63	27	37	14	19	59	81	
Positive (PGBI-10M score ≥12)	500	87	360	72	140	28	124	25	376	75	
Days between screening and baseline assessment											
Median	36		34		43		37		36		.88
25th percentile	20		20		23		18		20		
75th percentile	62		56		75		62		62		

^a Children's Global Assessment Scale. Possible scores range from 1 to 100, with higher scores indicating better functioning.

^b Children's Depression Rating Scale-Revised. Possible scores range from 17 to 113, with higher scores indicating more depression.

^c Possible scores range from 0 to 60, with higher scores indicating more manic symptoms.

^d Parent General Behavior Inventory Ten-Item Mania Scale. Possible scores range from 0 to 30, with higher scores indicating more manic symptoms.

medication and therapy, or evaluation) and to rate how well it had matched the child's needs by choosing one of three responses—not well, somewhat well, or very well. They were also asked to rate how much the child had benefited from treatment by choosing one of three responses—not at all, some, or a lot. This last question served as an outcome for these analyses. Because responses of some or not at all showed similar patterns of relationships with mental health services use, the responses were dichotomized (a lot versus some or not at all). The SACA was used at the six-month follow-up visit to establish whether children continued to use services.

Statistical analyses

SAS, version 9.2, was used to analyze the data; alpha was set at .05, and two-tailed tests were used for all analyses. Child and family characteristics were described by using counts

and proportions for categorical variables; medians (25th and 75th percentiles) for skewed variables; and means and standard deviations for normally distributed continuous measures. Bivariate associations of child and family characteristics with each outcome of interest were examined by using univariable logistic regression analyses. Post hoc, pairwise comparisons were examined if the overall p value was statistically significant; given the descriptive nature of the bivariate analyses, no adjustments were made for multiple comparisons.

Multivariable logistic regression examined associations of child and family characteristics with each outcome, with site included as a design variable. The first model of parent perception of benefit included site and the three clinical measures of interest: primary diagnosis, treatment, and baseline child functioning. Model 2 included those measures plus child and family characteristics that were

found by the bivariate analysis to be significantly related to parent perception of benefit and number of days between screening (initial clinic visit) and baseline assessment. The relation of parent perception of benefit of the child's most recent treatment with continuation of treatment for six months was examined by using a similar method. Model 1 included parent perception of benefit and site, and model 2 added child and family characteristics that were significantly related in the bivariate analysis to continuation of treatment. Results of the logistic regression analyses are summarized by using adjusted odds ratios (aORs) and 95% confidence intervals (CIs) (45).

Results

Perceived benefit

Tables 1–3 show baseline characteristics of the entire sample (N=573) stratified by perceived benefit of treatment at baseline and continua-

Table 3

Parents' perception of benefits of children's treatment and treatment continuation at six-month follow-up, by characteristic of family at baseline

Characteristic	Total (N=573)		Benefit				p	Continued treatment				p
			None or some (N=406)		A lot (N=167)			No (N=138)		Yes (N=435)		
	N	%	N	%	N	%		N	%	N	%	
Parent education							.53					.09
Less than high school	54	10	39	72	15	28		13	24	41	76	
High school or GED	138	24	98	71	40	29		32	23	106	77	
Some college or associate's degree	263	47	192	73	71	27		73	28	190	72	
College degree or higher	110	20	72	66	38	35		17	16	93	85	
Parent-reported diagnoses (M±SD) ^a	4.7±4.2		4.9±4.3		4.3±3.7		.16	5.5±4.1		4.5±4.2		.02
Parental burden score (M±SD) ^b	4.5±2.8		4.6±2.8		4.3±2.8		.35	4.4±3.0		4.5±2.8		.67
Parental stress score (M±SD) ^c	8.7±4.3		8.9±4.4		8.3±4.2		.14	8.4±4.5		8.9±4.3		.26
Parent or sibling prescribed medication for psychological or emotional problem							.31					.95
No	198	35	135	68	63	32		48	24	150	76	
Yes	375	66	271	72	104	28		90	24	285	76	
Parent or sibling hospitalized for psychological or emotional problem							.006					.02
No	406	71	274	68	132	33		87	21	319	79	
Yes	167	29	132	79	35	21		51	31	116	70	
Study site							<.001					.13
Cleveland	136	24	66	49	70	52 ^d		34	25	102	75	
Cincinnati	151	26	122	81	29	19		26	17	125	83	
Columbus	142	25	104	73	38	27		38	27	104	73	
Pittsburgh	144	25	114	79	30	21		40	28	104	72	

^a Diagnoses of parents as reported by interviewed family member

^b Assessed with 13 items from the Parent Stress Survey. Possible scores range from 0 to 52, with higher scores indicating more burden.

^c Assessed by the Parent Stress Survey. Possible scores range from 0 to 100, with higher scores indicating more stress.

^d Significant difference found in post hoc pairwise comparisons of Cleveland and the other study sites

tion of treatment at six-month follow-up. Parents of 167 children (29%) reported that the child benefited a lot from treatment; 299 (52%) parents reported some benefit, and 107 (19%) reported no benefit. As shown in Table 1, parents of children living with both biological parents were more likely than parents of children who lived with one or neither biological parent to report a lot of benefit from the most recent outpatient mental health treatment (36% versus 26%, $p=.01$).

Children's clinical characteristics were consistently related to parent-reported treatment benefit. Parents of children with a primary diagnosis of bipolar or psychotic disorders, anxiety disorder, or uncomplicated attention-deficit hyperactivity disorder (ADHD) were more likely than parents of children with disruptive be-

havior disorders to report considerable benefit. Children with a depressive disorder were less likely than children with ADHD to receive treatment rated as very beneficial (26% versus 41%, $p=.03$). Parents of children without comorbid diagnoses and fewer diagnoses were more likely to rate the most recent treatment as beneficial. Parent ratings indicated that children who received only psychosocial therapy were half as likely as children who received medication with or without therapy to have benefited a lot from their most recent treatment (19% versus 36% and 35%, respectively, $p<.001$) (Table 2).

Parents were more likely to rate treatment as beneficial if their child had higher CGAS scores or lower CDRS-R scores (Table 2) and no immediate family member who had been hospitalized for a mental health

problem (Table 3). Parents in Cleveland were twice as likely as parents in Cincinnati, Columbus, and Pittsburgh to rate mental health services as beneficial (52% versus 19%, 27%, and 21%, respectively, $p<.001$) (Table 3). There were no statistically significant differences in ratings of benefit among the three other sites. Finally, the proxy measure of length of treatment, days between screening and the baseline interview, was positively associated with benefit.

Model 1 of the multivariable modeling showed that diagnosis was no longer significantly related to the perception by parents that their children received a lot of benefit from treatment (Table 4). However, baseline treatment, baseline CGAS score, and site of treatment were related to perceived benefit of most recent treatment. Compared with parents whose

Table 4

Children's baseline characteristics associated with parents' perception of a lot of benefit from the child's most recent outpatient treatment

Characteristic	Model 1			Model 2		
	aOR	95% CI	p	aOR	95% CI	p
Primary diagnosis (reference: bipolar spectrum disorder)			.14			.07
Depressive disorder	.96	.51–1.83		1.01	.53–1.95	
Anxiety disorder	2.37	1.03–5.45		2.87	1.20–6.86	
Disruptive behavior disorder	.77	.43–1.38		.76	.42–1.38	
Attention-deficit hyperactivity disorder	1.28	.64–2.53		.87	.38–1.97	
Other	1.16	.54–2.50		.78	.33–1.83	
Treatment (reference: therapy only)			.009			.003
Medication only	1.81	1.07–3.07		1.99	1.15–3.45	
Medication and therapy	2.17	1.31–3.58		2.43	1.44–4.09	
CGAS score, per 5-point increase ^a	1.21	1.07–1.36	.003	1.17	1.03–1.32	.01
Study site (reference: Cleveland)			<.001			<.001
Cincinnati	.25	.14–.44		.28	.16–.51	
Columbus	.61	.34–1.12		.70	.38–1.30	
Pittsburgh	.33	.18–.60		.41	.22–.76	
No comorbidity (reference: ≥ 1)				1.91	1.03–3.56	.04
Both biological parents in the home (reference: neither or one)				1.61	1.06–2.47	.03
Parent or sibling hospitalized for psychological or emotional problem (reference: none)				1.80	1.12–2.92	.02

^a Children's Global Assessment Scale

children received therapy alone, parents of children receiving medication only had 1.81-fold increased odds of reporting considerable benefit, and parents of children receiving medication and therapy had more than twofold increased odds of reporting considerable benefit (aOR=2.17, $p<.009$). Similarly, CGAS score, a measure of functioning, remained related to perceived benefit. Each 5-point increase in CGAS score was associated with 21% increased odds of perceived benefit ($p=.003$).

Model 2 also indicated that parents of children with no comorbid diagnoses had almost twice the odds of perceiving treatment as beneficial (aOR=1.91, $p=.04$). Other factors in the model that remained associated with perceived benefit included treatment site, living with both biological parents, and not having an immediate family member who had ever been hospitalized for a mental health problem.

Continued use of services

We examined characteristics associated with remaining in services at the six-month follow-up (Tables 1–3). Three-quarters of the children

(N=435, 76%) continued to receive outpatient mental health services at the six-month follow-up. Demographic characteristics, including race-ethnicity, were not associated with continuation of treatment. Children who lived with both biological parents were more likely than children who lived with one or neither biological parent to continue outpatient treatment (83% versus 73%, $p=.01$). The proportion of children who continued outpatient treatment for six months was smaller among children with Medicaid insurance than among children without Medicaid insurance (71% versus 81%, $p=.003$). Children's clinical characteristics at baseline were not significantly related to continuation of treatment, but clinical characteristics of the family, including fewer parent mental health problems (4.5 versus 5.5, $p=.02$) and not having a parent or a sibling who had been hospitalized for a mental health problem (79% versus 70%, $p=.02$), had positive associations with continuation of treatment.

A majority (83%) of parents who perceived a lot of benefit from their child's most recent outpatient mental health treatment reported that their

child continued with treatment for six months. Continuation of treatment was reported by 78% of parents who perceived some benefit and by 60% of parents who perceived no benefit (data not shown).

The multivariable model predicting continued use of treatment showed that after adjustment for study site, perceived benefit of treatment was significantly related to continued treatment at six-month follow-up (Table 5). The odds of continuing treatment for six months were increased 1.91-fold among children whose parents perceived a lot of benefit from treatment compared with children whose parents perceived some or no benefit ($p=.008$). Living with both biological parents was the only other baseline characteristic that was significantly associated with continuation of treatment for six months (aOR=1.59, $p=.05$) (model 2).

Discussion

These analyses suggested that perceived benefit early in treatment may be an important predictor of remaining in treatment and that multiple factors were correlated with parents' perceptions of the benefit of treat-

Table 5

Baseline characteristics of children associated with continued treatment at six-month follow-up

Characteristic	Model 1			Model 2		
	aOR	95% CI	p	aOR	95% CI	p
Parents perceived a lot of benefit from treatment (reference: some or no benefit)	1.91	1.19–3.08	.008	1.96	1.19–3.21	.008
Both biological parents in the home (reference: neither or one)				1.59	1.00–2.50	.05
Study site (reference: Cleveland)			.08			.14
Cincinnati	1.96	1.08–3.56		1.81	.98–3.36	
Columbus	1.06	.61–1.85		.99	.56–1.74	
Pittsburgh	1.05	.60–1.82		1.00	.57–1.75	

ment. As previously suggested in the literature (24), parents perceived treatment to be beneficial among children with higher functioning and fewer symptoms at baseline. Surprisingly, among the sociodemographic variables associated previously with perceived efficacy of treatment (21,24), only living with both biological parents was related to perceived benefit in this study population. Perhaps most striking was the association of benefit and receiving medication or medication and therapy versus receiving therapy alone, a finding similar to results reported for treatment of ADHD (46). Given the reported preference of parents, particularly parents belonging to a racial or ethnic minority group, for counseling over medication (18,24), the endorsement of benefit of medication may indicate that parents suspend their concerns about potential side effects when they believe medications have led to improvements for their children.

Interestingly, race and ethnicity were not related to perceived benefit from treatment or continuation of treatment at six-month follow-up. In fact, African-American and white children continued in treatment at similar rates (74% and 76%, respectively) as Latino children and children of other or mixed race (82% and 79%, respectively). That suggests that early termination of treatment by nonwhite children and families, which has been often reported, may be service-setting specific.

The relationship of perceived benefit to remaining in treatment is consistent with, although not the same as,

the finding by Nock and Kazdin (24) that parent expectancies are related to premature termination. Thus, as suggested by Olin and others (9), discussing with parents their perceptions of the benefits that their children are receiving from treatment early in the treatment process may be a useful strategy to prevent premature termination (47). Parental engagement in their children's mental health treatment has been shown to increase utilization, and seeking parents' input about treatment benefit may be an important part of such engagement (9,48).

As with all data, these data have certain limitations. The sample was a cohort of outpatient utilizers that was enriched for symptoms of mania and that was located in one geographical region. These children may not have been representative of all users of child outpatient mental health services. Not all members of the study population had baseline treatment and benefit data, although we identified no child, family or clinical differences between those with and without those data. These treatment-utilization data were self-reported, and no data were verified. Benefit from treatment consisted of one question, and we collected no data from clinic records on the quality of care children received. The absence of data on the care received is important because of the differences in perceived benefit of treatment in Cleveland compared with treatment at the other sites. Because these children were recruited from outpatient mental health clinics, these

data also provided no information on factors important for initially seeking services.

Conclusions

The relationship of perceived benefit of treatment to its continued use is an important finding that could be used to develop strategies to engage families in treatment. Given the paucity of interventions that improve engagement and retention, exploration of perceived benefit as a factor in continuation of treatment is warranted (49). Future studies should also consider the child's perception of benefit (50,51) as well as the interaction of parental and child perceptions of benefit. Given that efficacious mental health treatments are available, initiating and maintaining treatment among children are critically important to ensure that children receive the care that could improve their health.

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