

Treatment Retention Among Children Entering a New Episode of Mental Health Care

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Objective: This study examined use of mental health services among children and adolescents with private insurance who were entering treatment. Variations in service use were examined by age, gender, diagnosis, recent psychiatric hospitalization, and type of insurance. Differences between children who received treatment from mental health professionals and those who were treated by primary care physicians were also examined. **Methods:** Drawn from a large database, the sample comprised 11,659 new users of mental health services. Service use was defined as the total number of days children were retained in treatment and the total number of mental health contacts recorded. **Results:** The overall mean number of visits within a six-month period was 3.9. The average duration of treatment was 75.36 days. Children who were treated by a mental health specialist were less likely to drop out of treatment and had a larger number of visits. Severity of illness, psychiatric hospitalization, and managed care insurance coverage were also associated with lower risk of dropout and greater intensity of care. **Conclusions:** Children's access to services does not guarantee sustained involvement in treatment. To more fully address the nature of service use among children, a closer look at specific barriers to continued involvement in services is needed. (*Psychiatric Services* 55:1022–1028, 2004)

Providing mental health services to children and adolescents is increasingly recognized as a priority area for mental health service delivery and research (1). Almost 20 years ago a report by the U.S. Office of Technology Assessment (2) expressed concern that approximately 70 percent of children and adolescents who need treatment do not receive mental health specialty services. More recently, Burns and colleagues (3) and Leaf and colleagues (4) documented continuing problems in the delivery of mental health services to children.

Even when children do receive

services, 40 to 60 percent of those who enter outpatient treatment drop out relatively quickly and make only a small number of visits to their providers (3,5–10). Although several studies have examined the barriers involved, most of these studies have been limited to narrow diagnostic groups (11–19). In a large study of children and adolescents who received outpatient mental health services in the Fort Bragg project, Andrade and associates (20) found that only 39 percent remained in treatment for more than six months.

It has also been documented that

children have only limited access to mental health specialists. Farmer and associates (21) found that of the children who received mental health services in the Great Smoky Mountains study, only 8 percent received services from a specialist. In view of these results it is important to determine whether retention improves when treatment is provided by such specialists.

The study reported here examined the use of mental health services among both children and adolescents who were entering a new episode of treatment and used a national database that compiles claims from private insurance companies. Service use was measured as both the total amount of time children remained in treatment and the number of mental health services they received. We were especially interested in variations in service use by age, gender, diagnosis, recent psychiatric hospitalization, and type of insurance and between children who received their mental health treatment from a mental health professional (a psychiatrist or a psychologist) and those who were treated exclusively by a primary care physician. We thus sought to evaluate base levels of retention in treatment and the number of services received as well as individual patient and provider characteristics associated with receipt of continued treatment.

Methods

Data and sample

The data for this study were obtained from MarketScan database. This database compiles claims from pri-

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vate health insurance plans nationwide and includes information about adults and dependents who are insured through the benefit plans of large employers. For confidentiality reasons, information about the specific firms participating in the national database is not available. Because this study was based on anonymous administrative data that included no personal identifying information, the approval of an institutional review board was not sought.

In calendar year 2000, of a total of 642,428 children who were covered by plans contributing to the database, 40,639 (6.3 percent) received some mental health services, and 11,659 of these were identified as new users of mental health services—that is, children who had no claims for any mental health services during the first 60 days of the year. Only children who began treatment between March 1 and June 30, 2000, were included in the analysis, to allow a full six-month tracking period.

Of the 11,659 children, 5,053 were treated exclusively by a primary care physician for a mental disorder, 5,731 were treated exclusively by a mental health specialist, and 875 were treated by both types of provider. All children who saw both a primary care physician and a mental health specialist started their mental health treatment with the primary care physician.

Measures

Number of days in treatment. For each study participant we calculated the total number of days between the initial visit and the last visit. If a participant remained in treatment for more than the observed six-month period, his or her retention was recorded as 180 days.

Number of visits (dose). We aggregated the total number of direct mental health visits by the type of provider during the six-month period. Other visits during this time—for example, referral for further psychological assessment or laboratory visits—were not counted.

Diagnosis. We defined mental health diagnosis as the presence of any *ICD-9* code between 290.00 and 319.99. The primary diagnosis for each child was defined as the diag-

nosis associated with the largest number of outpatient visits for each child.

Diagnostic groups. We defined ten mental health diagnostic groups: attention-deficit hyperactivity disorder (ADHD) (*ICD-9* codes 314.00 to 314.99), adjustment reaction (codes 309.00 to 309.09 and 309.10 to 309.99), depression (codes 296.20 to 296.39, 300.40, 309.10, and 311.00), bipolar disorder (codes 296.00 to 296.19 and 296.40 to 296.89), schizophrenia (codes 295.00 to 295.99), substance abuse (codes 291.00, 292.00, and 303.00 to 305.99), anxiety disorders (codes 300.00 to 300.09, 300.20 to 300.39, 313.00 to 313.09, and 308.00 to 308.99), eating disorders (codes 307.10, 307.50, 307.51, and 307.54), disruptive behavior disorders (codes 312.00 to 312.99), and other (codes 290.00 to 319.99, not elsewhere defined).

Hospitalization. Of the 11,659 children who entered treatment in 2000, we identified 262 who received inpatient psychiatric care during this period.

Insurance plans. We defined two major types of insurance plan: indemnity and managed care. The managed care category included both preferred provider organizations (PPOs) and point-of-service (POS) plans. Indemnity insurance plans include all programs in which there is no incentive for the patient to use a particular provider or providers but which may include deductibles or coinsurance payments. The PPO and POS plans are similar in that both establish financial incentives—through lower copayments—to use a particular list of providers. POS programs require that a designated primary care physician make a referral to a specialist.

Comorbidity index. Because we were concerned that children who were treated by mental health specialists would have more severe illness than children treated by primary care physicians, we aggregated the total number of secondary mental health diagnoses received by each participant to control for severity.

Statistical analysis

We used Cox proportional hazards regression to model the risk of early

dropout from treatment and its association with gender, age, primary diagnosis, insurance plan, severity of illness, psychiatric hospitalization, and provider type. We further used Cox regression models to identify the interaction of diagnosis and provider type (primary care physician versus mental health specialists) in predicting likelihood of treatment termination. We also modeled the total number of mental health visits by using multivariate linear regression. Finally, we used logistic regression to model dropout from treatment within the first 30 days. The first model examined main effects of gender, age, diagnosis, provider, insurance plan, psychiatric hospitalization, and severity on continuation in treatment. A second model was designed to examine the effect of the interaction of diagnosis and treating provider.

Results

Sample characteristics

The sample included 11,664 children, of whom 7,168 (61.5 percent) were boys and 4,496 (38.5 percent) were girls. Their mean \pm SD age was 11.51 \pm 4.02 years. The sample's diagnostic mix was as follows: ADHD, 4,348 (37.3 percent); adjustment disorder, 2,306 (19.8 percent); depression, 1,829 (15.7 percent); bipolar disorder, 163 (1.4 percent); schizophrenia, 14 (.1 percent); substance use disorders, 175 (1.5 percent); anxiety disorders, 782 (6.7 percent); eating disorders, 81 (.7 percent); and disruptive behavior disorders, 676 (5.8 percent). The overall mean number of visits within a six-month period was 3.9 \pm 4.48, with an average duration of stay of less than three months (75.36 \pm 76.65 days out of 180).

Survival analysis

With severity of illness controlled for, Cox proportional hazards regression models of the risk of dropping out of treatment showed that adolescents had a greater risk of dropout than school-age children (Table 1). With the exception of schizophrenia and eating disorders, all diagnoses were associated with a significantly higher risk of termination of treatment compared with ADHD. Children who had more comorbid illnesses associat-

Table 1

Cox proportional hazards regression models of time to treatment dropout in a sample of 11,659 children and adolescents newly entering mental health services

Variable	Model 1 (without interactions)			Model 2 (with interactions)		
	Hazard ratio	CI	p	Hazard ratio	CI	p
Age group						
Adolescence (13 to 18 years) (referent)	—	—	—	—	—	—
Preschool (0 to 6 years)	.97	.91–1.04	.44	.22	.89–1.03	.22
School age (7 to 12 years)	.85	.81–.89	<.01	.86	.82–.9	<.01
Sex						
Male (referent)	—	—	—	—	—	—
Female	.99	.95–1.04	.44	.99	.95–1.04	.8
Diagnosis						
Attention-deficit hyperactivity disorder (referent)	—	—	—	—	—	—
Adjustment disorder	1.36	1.27–1.46	<.01	1.37	1.17–1.61	<.01
Depression	1.2	1.12–1.29	<.01	1.45	1.29–1.62	<.01
Bipolar disorder	1.41	1.17–1.70	<.01	1.68	1.25–2.26	<.01
Schizophrenia	1.79	.96–3.36	.07	1.48	.37–6.03	.58
Substance use disorder	1.81	1.54–2.14	<.01	2.1	1.65–2.67	<.01
Anxiety disorder	1.18	1.08–1.29	<.01	1.52	1.32–1.74	<.01
Eating disorder	1.11	.85–1.44	.45	1.63	1.09–2.44	.02
Disruptive behavior disorder	1.33	1.21–1.47	<.01	1.72	1.5–2.03	<.01
Other	1.58	1.47–1.7	<.01	1.82	1.68–1.98	<.01
Psychiatric hospitalization						
Outpatient only (referent)	—	—	—	—	—	—
Hospitalized	.79	.67–.93	<.01	.82	.7–.97	.02
Treating provider						
Pediatrician (referent)	—	—	—	—	—	—
Mental health specialist	.66	.67–.7	<.01	.81	.75–.88	<.01
Treated by both provider types	.86	.78–.94	<.01	1.12	.97–1.29	.11
Insurance plan						
Indemnity (referent)	—	—	—	—	—	—
Preferred provider organization or point-of-service plan	.92	.89–.96	<.01	.91	.88–.95	<.01
Comorbidity index	.7	.67–.73	<.01	.69	.67–.72	<.01
Time to dropout by diagnosis and provider ^a						
Diagnosis × pediatrician (referent)	—	—	—	—	—	—
Depression × mental health specialist	—	—	—	.7	.61–.81	<.01
Bipolar disorder × mental health specialist	—	—	—	.64	.43–.95	.03
Substance use disorder × mental health specialist	—	—	—	.71	.51–.99	.04
Anxiety disorder × mental health specialist	—	—	—	.61	.51–.74	<.01
Eating disorder × mental health specialist	—	—	—	.51	.29–.9	.02
Disruptive behavior disorder × mental health specialist	—	—	—	.63	.51–.77	<.01
Other × mental health specialist	—	—	—	.65	.54–.78	<.01
Depression × both provider types	—	—	—	.64	.50–.81	<.01
Anxiety disorder × both provider types	—	—	—	.6	.42–.85	<.01
Eating disorder × both provider types	—	—	—	.45	.21–.95	.03
Disruptive behavior disorder by both provider types	—	—	—	.6	.38–.89	.01
Other × both provider types	—	—	—	.47	.33–.67	<.01

^a Only significant interactions are listed.

ed with their primary diagnosis and children who were hospitalized were significantly less likely to terminate treatment than other children, presumably because they were more severely ill.

Children who were treated by a mental health specialist or by both a mental health specialist and a non-

specialist had a significantly lower risk of dropout (hazard ratios of .69 and .71, respectively). When we examined the interaction of diagnosis and treatment provider we found that children who were treated by a mental health professional for depression, bipolar disorder, substance use disorders, eating disorders, anxiety disorders,

and disruptive behavior disorders were at a significantly lower risk of dropping out of treatment within six months compared with those who were treated for these disorders by a primary care physician.

Children who were covered by PPO or POS insurance plans had a significantly lower risk of dropping

out of treatment than children who were covered by indemnity insurance plans.

The results of multivariate regression analysis of the total number of mental health visits during the six-month period were generally similar to those of the survival analysis (Table 2). Adolescents, who had a higher risk of terminating treatment than school-age children, had significantly less use of mental health services during the observed six-month period. Although no significant difference was observed in the duration of treatment between boys and girls, girls had more visits during the six-month period. A summary of means is shown in Table 3.

Compared with children who had a diagnosis of ADHD, children with a diagnosis of adjustment disorder, depression, substance use disorder, anxiety disorder, eating disorder, or disruptive behavior disorder had a greater number of visits. Among the diagnostic groups, children who were treated for eating disorders had the highest number of outpatient psychiatric visits (7.54 visits), whereas children who were treated for ADHD had the fewest visits (2.43 visits). Excluding these two diagnostic groups, children attended an average of 5±.5 mental health visits during the six-month period—less than one visit per month, with little variation (Table 3).

Children who had a more severe mental illness or who had been hospitalized received significantly more outpatient services. We also found that children who were treated by a primary care physician had fewer visits than those who were treated by a mental health professional. Children covered by PPO or POS insurance plans had significantly more outpatient mental health visits than children covered by indemnity plans (Table 2).

Altogether, 45 percent of patients left treatment within 30 days. Logistic regression assessing the risk of dropout during the first 30 days of treatment showed that school-age children were less likely to terminate treatment than adolescents. Children with more severe illness or children who were hospitalized for psychiatric disorders had a lower risk of leaving

Table 2

Multivariate regression of number of visits within a six-month period in a sample of 11,659 children and adolescents newly entering mental health services

Variable	B	SE	p
Age			
Adolescence (13 to 18 years) (referent)	—	—	—
Preschool (6 years and under)	.33	.13	<.01
School age (7 to 12 years)	.27	.08	<.01
Gender			
Male (referent)	—	—	—
Female	.39	.08	<.01
Diagnosis			
Attention-deficit hyperactivity disorder (referent)	—	—	—
Adjustment disorder	.01	.13	.92
Depression	.79	.11	<.01
Bipolar disorder	-.54	.32	.09
Schizophrenia	-2.73	1.05	.01
Substance use disorder	1.09	.31	<.01
Anxiety disorder	.53	.15	<.01
Eating disorder	2.93	.44	<.01
Disruptive behavior disorder	.52	.16	<.01
Psychiatric hospitalization			
No (referent)	—	—	—
Yes	3.18	.26	<.01
Provider			
Primary care physician (referent)	—	—	—
Mental health specialist	2.88	.08	<.01
Both provider types	4.29	.15	<.01
Insurance plan			
Indemnity (referent)	—	—	—
Preferred provider organization or point-of-service plan	.35	.07	<.01
Comorbidity index	1.3	.06	<.01

treatment within the first 30 days. Compared with children who had a diagnosis of ADHD, children with a diagnosis of adjustment disorder, bipolar disorder, substance use disorder, or disruptive behavior disorder were more likely to discontinue their treatment in the first 30 days.

Children who were treated for their mental illness by a primary care physician were again at greater risk of dropping out of treatment in the first 30 days. Interactions showed that children who were treated by a mental health specialist for adjustment, depression, bipolar, substance use, anxiety, eating, or disruptive behavior disorders were significantly less likely to leave treatment within the first 30 days than those who were treated for these disorders by their primary care physician (Table 4).

Finally, children who were covered by PPO or POS insurance plans were also less likely to drop out in the first 30 days than children with indemnity insurance coverage.

Discussion

We found a low rate of continued use of outpatient mental health services among children who were fully covered by a private medical insurance plan. Children who entered outpatient mental health services remained in treatment for an average of less than three months (75.36 days) of a possible 180 treatment days and had a total of less than one mental health visit per month. Only 22 percent of children remained in treatment longer than six months, and 45 percent were treated for less than 30 days. Thus, in this sample of privately insured children, access to services did not guarantee sustained involvement in treatment.

A number of patient and service system characteristics were associated with retention and intensity of service use. In all analyses, severity of illness measured by the comorbidity index was a significant determinant of service use. Although gender was not associated with the amount of time

Table 3

Unadjusted mean number of visits and number of days in treatment within six months among children and adolescents newly entering mental health services

Variable	N	%	Visits		Days ^a	
			Mean	SD	Mean	SD
Overall	11,659	100	3.9	4.48	75.36	76.65
Age						
Preschool (0 to 6 years)	1,347	11.6	3.45	4.36	60.53	74.33
School age (7 to 12 years)	4,930	42.5	3.7	4.23	81.39	78.48
Adolescence (13 to 18 years)	5,325	45.9	4.24	4.7	74.23	74.95
Sex						
Male	7,168	61.5	3.59	4.18	75.14	77.48
Female	4,496	38.5	4.41	4.86	75.64	75.31
Diagnosis						
Attention-deficit hyperactivity disorder	4,348	37.3	2.43	2.67	77.4	80.58
Adjustment disorder	2,306	19.8	5.32	4.66	78.89	70.58
Depression	1,829	15.7	5.51	5.44	86.76	74.47
Bipolar disorder	163	1.4	4.81	5.14	84.88	75.29
Schizophrenia	14	.1	4.93	4.81	86.14	82.58
Substance use disorder	175	1.5	5.04	6.86	50.91	66.23
Anxiety disorder	782	6.7	4.55	4.71	82.62	75.78
Eating disorder	81	.7	7.54	7.89	85.77	76.43
Disruptive behavior disorder	676	5.8	4.94	5.24	78.56	76.76
Other	1,290	11.1	2.64	4.09	41.08	68.2
Psychiatric hospitalization						
Outpatient only	11,402	97.8	3.76	4.25	74.4	76.51
Hospitalized	262	2.2	10.05	8.27	115.93	71.68
Provider						
Pediatrician	5,053	43.3	1.96	2.46	57.67	76.63
Psychiatrist	5,731	49.2	5.05	4.77	88.68	73.65
Both provider types	875	7.5	7.64	6.22	90.3	75.3
Insurance plan						
Indemnity	5,054	43.3	3.73	4.33	72.26	76.27
Preferred provider organization or point-of-service plan	6,610	56.7	4.04	4.85	77.68	76.86

^a Maximum days in treatment, 180 days

children remained in treatment or the risk of early termination, the total number of mental health visits was greater among girls than among boys, perhaps because parents spend significantly more time talking to their daughters than to their sons and may be more attentive to their daughters' emotions (22–25).

Adolescents were more likely to drop out of treatment than school-age children. It has been suggested that parents exercise more control over young adolescents than older ones and that adolescents have more negative attitudes toward mental health treatment than younger children (6,26).

Children who were hospitalized were at a significantly lower risk of early treatment termination and received a significantly higher dose of outpatient treatment, with 41.2 percent continuing in treatment for more than six months. When severi-

ty of illness was controlled for, on all three of our measures children who were treated by a mental health specialist received more intensive services than children who were treated exclusively by a primary care physician. It is possible that these findings are accounted for by mental health specialists' ability to provide psychotherapy.

Although this study found, as did studies by Goldston and colleagues (6) and Wu and colleagues (27), that depression was associated with a higher risk of dropout before six months of outpatient treatment, when we adjusted for the type of treatment provider, depressed children who were treated by a mental health specialist were especially more likely to continue their treatment beyond six months.

Children with diagnoses of substance use disorders had the highest

risk of discontinuing treatment before six months. Although the average number of days in treatment (50.91) was relatively low compared with that of children who had other mental health disorders, the number of visits among children with substance use disorders was relatively high (5.04). When we calculated the intensity of visits, measured as the average number of visits per month while in active treatment, children with diagnoses of substance use disorders received the most intensive treatment (2.7 visits per month on average). Children with substance use disorders may thus begin their treatment under intensive care for detoxification but may be at a higher risk of dropping out of treatment because of relapse.

Children with diagnoses of eating disorders had the greatest number of mental health visits in this sample. Among psychiatric disorders, an-

Table 4

Logistic regression of early dropout from treatment (≤ 30 days) in a sample of 11,659 children and adolescents newly entering mental health services

Variable	Model 1 (without interactions)			Model 2 (with interactions)		
	OR	CI	p	OR	CI	p
Age group						
Adolescence (age 13 to 18 years) (referent)	—	—	—	—	—	—
Preschool (age 0 to 6 years)	.99	.86–1.13	.83	.96	.83–1.1	.55
School age (age 7 to 12 years)	.79	.72–.86	<.01	.8	.74–.88	<.01
Sex						
Male (referent)	—	—	—	—	—	—
Female	.97	.89–1.06	.5	.97	.89–1.05	.4
Diagnosis						
Attention-deficit hyperactivity disorder (referent)	—	—	—	—	—	—
Adjustment disorder	1.19	1.05–1.35	<.01	1.43	1.05–1.95	.02
Depression	1.06	.92–1.21	.43	1.68	1.33–2.1	<.01
Bipolar disorder	1.49	1.05–2.11	.03	2.69	1.49–4.88	<.01
Schizophrenia	1.92	.58–6.32	.28	2.51	.18–34.29	.49
Substance use disorder	2.37	1.7–3.31	<.01	3.72	2.09–6.6	<.01
Anxiety disorder	1.04	.88–1.23	.67	1.77	1.34–2.33	<.01
Eating disorder	.96	.59–1.54	.85	1.94	.86–4.38	.11
Disruptive behavior disorder	1.49	1.25–1.78	<.01	2.8	1.97–3.98	<.01
Other	2.38	2.05–2.75	<.01	3.32	2.77–3.98	<.01
Psychiatric hospitalization						
Outpatient only (referent)	—	—	—	—	—	—
Hospitalized	.7	.49–.94	.02	.76	.55–1.05	<.09
Treating physician						
Pediatrician (referent)	—	—	—	—	—	—
Mental health specialist	.33	.3–.37	<.01	.53	.46–.61	<.01
Both provider types	.57	.49–.94	<.01	.91	.72–1.18	.48
Insurance plan						
Indemnity (referent)	—	—	—	—	—	—
Preferred provider organization or point-of-service plan	.83	.77–.92	<.01	.81	.75–.88	<.01
Comorbidity index						
Comorbidity index	.7	.67–.73	<.01	.49	.46–.53	<.01
Dropout by diagnosis and provider type^a						
Diagnosis \times pediatrician (referent)	—	—	—	—	—	—
Adjustment disorder \times mental health specialist	—	—	—	.63	.44–.88	<.01
Depression \times mental health specialist	—	—	—	.42	.32–.55	<.01
Bipolar disorder \times mental health specialist	—	—	—	.34	.16–.72	<.01
Substance use disorder \times mental health specialist	—	—	—	.38	.18–.78	<.01
Anxiety disorder \times mental health specialist	—	—	—	.34	.24–.49	<.01
Eating disorder \times mental health specialist	—	—	—	.29	.1–.87	.03
Disruptive behavior disorder \times mental health specialist	—	—	—	.34	.22–.51	<.01
Other \times mental health specialist	—	—	—	.38	.27–.54	<.01
Adjustment disorder \times both provider types	—	—	—	.47	.27–.78	<.01
Depression \times both provider types	—	—	—	.45	.29–.71	<.01
Anxiety disorder \times both provider types	—	—	—	.43	.22–.84	.01
Eating disorder \times both provider types	—	—	—	.21	.05–.95	.04
Disruptive behavior disorder \times both provider types	—	—	—	.37	.17–.8	.01
Other \times both provider types	—	—	—	.27	.14–.52	<.01

^a Only significant interactions are listed.

orexia nervosa is associated with one of the highest risks of mortality and is highly visible, is very physical, and requires constant interaction between the parents and the child (28,29). Parents of children with eating disorders, as opposed to disruptive behavior disorders, are highly aware of the potentially fatal nature of the disorder and are therefore likely to make greater efforts to en-

sure that their children continue to receive services.

We were surprised to find that both duration of involvement and the number of visits were lower among children who were covered by the presumably less restrictive indemnity insurance plans as opposed to PPO and POS plans. These differences were consistent across all three measurement domains. We can only spec-

ulate that greater deductibles and co-payments under indemnity plans discourage service use more than the provider restriction of PPO and POS plans.

Comparison of our results with those of a study of children covered by an HMO suggests that the mean number of visits in private plans is somewhat greater than in HMOs (8). DeBar and colleagues (8) reported

that during a 12-month period adolescents with diagnoses of mood disorders had an average of only 5.4±6.28 visits, whereas we found that children with a diagnosis of depression had an average of 5.5±5.44 visits over only six months.

This study had several limitations. The sample was limited to children and adolescents with private insurance, and it is unclear whether it was epidemiologically representative. Furthermore, it was impossible to determine from the data set whether study participants left treatment prematurely or had recovered and no longer needed services. Finally, the criterion of 60 days without an insurance claim does not fully guarantee that all the children were entering a new episode of treatment. Although the practice is illegal in some states, children who were stabilized on ADHD medications may receive a prescription that would cover more than 60 days. In such cases we may have misidentified new entrants into treatment.

Conclusions

In conducting this study we had access to one of the largest samples of children who were newly entering mental health treatment that have been studied thus far, and we found that even full coverage by medical insurance did not guarantee sustained service use. It may have been the case that the relatively short time children spend in treatment reflects the fact that their parents are more interested in or accepting of crisis intervention than longer-term therapy. To more fully understand the nature of these patterns of service use, one would need to look more closely at the children's motivation and experience, their parents' beliefs and attitudes toward mental illness and treatment, and their capacity for understanding the emotional and physical needs of their child. ♦

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