Data Trends

Summaries of research on mental health services for children and adolescents and their families

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Source: Leslie, D. L., Rosenheck, R. A., & Horwitz, S. M. (2001). Patterns of mental health utilization and costs among children in a privately insured population. *Health Services Research, 36*, 113-127.

This article reports that, among children whose families have private health insurance, there has been a "substantial" decrease in the proportion of children who received mental health services between 1993 and 1996, and a sizeable decrease in the amount and cost of care among those who did receive services. In this article, Leslie and colleagues found that while the number of insured children stayed about the same, the proportion of children receiving mental health services fell dramatically by nearly one-third (-30%). Furthermore, for those children who did receive mental health services there were reductions in both amount of treatment received, and unit cost of treatment, resulting in a 59.6% decrease in cost per enrolled child (from $95 to $38) between 1993 and 1996 (with cost adjusted for inflation).

The data used in the study came from the MEDSTAT's MarketScan® database, which compiles claims information from private health insurance plans of large employers. The authors gathered information on annual inpatient and outpatient mental health utilization and costs among children aged 17 and under (N = 139,806) from 1993 to 1996. Virtually all of the health plans included in the study sample used a variety of managed care mechanisms to control costs, and the percentage of the sample enrolled in either a preferred provider organization or a point-of-service plan increased from 32.1% in 1993 to 45.6% in 1996.

Leslie and colleagues identified and investigated four components of the health plan data: (a) number and proportion of covered children who received care, (b) total number of inpatient and outpatient treatment days per treated child per year, (c) cost per day of treatment, and (d) total annual cost per treated child. Diagnosis and age group were included as variables to obtain more detailed information. Mental health diagnoses were limited to seven major childhood disorder groups, regardless of whether the care was received in either a mental health or primary care setting.

Costs were defined as the paid amount instead of charges, and this paid amount was adjusted for inflation. This amount included patient deductibles or copayments, payments made by the patient's insurance plan, and any payments made by other insurance providers (i.e. subrogation and Medicare savings).

Results revealed that while the number of children *enrolled* in health plans remained fairly consistent during the period from 1993 to 1996, the proportion of children who *received* any mental health services fell by 30% (Table 1). This decline was larger for inpatient care, which fell 38.6%, than for outpatient care, which fell 30.6%. The overall decrease in utilization is essentially accounted for by a very large drop from 1995 to 1996. There was actually an increase from 1993 to 1995. However, the authors do not offer an explanation for this large decrease from 1995 to 1996 after an increase from 1993-1995.

Among children who did receive care, inpatient mental health care costs decreased by nearly half, primarily due to a decline in the annual number of treatment days per child. Cost reductions were greatest for children diagnosed with hyperactivity and were smallest for those diagnosed with schizophrenia. Conversely, children receiving inpatient treatment due to substance abuse experienced significant increases in the number of bed days of care (87%), cost per day of treatment (19.3%), and cost per patient (88.7%).

For outpatient services, costs per treated child fell 25%, due mostly to a decline in costs per treatment day, although the number of days of care also fell slightly. Declines in outpatient costs were largest for children diagnosed with schizophrenia and were smallest for children receiving care for substance abuse. Decreases in both inpatient and outpatient mental health service use and costs tended to be larger among

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children aged 13 to 17. However, declines in inpatient service use were associated with slight increases in the number of outpatient days of care.

One of the limitations of this study, according to the authors, is the lack of information on the quality of treatment, treatment outcomes, or patient satisfaction. Such information would be very helpful in understanding the significance of the large decrease in utilization, length of treatment, and unit cost. The authors also comment on the lack of information regarding out-of-plan service usage, including mental health services that children, especially older children, receive at school.

The findings presented in this article "generate concerns about the way in which health insurance plans control mental health delivery among privately insured children" (p. 126). The authors suggest that further research is needed to determine whether the children represented by this 30% decline are receiving mental health services elsewhere. Additionally, research is needed to examine the effects of these declines on treatment outcome.

In summary, this study of over a million individuals covered by private health insurance produces findings that should be of great concern to individuals interested in children's mental health. The finding of substantial reductions in service utilization is especially alarming since there has been a long standing problem in children's mental health of under utilization of services in relation to need. It is not possible at this point to determine the extent to which the large reduction in the proportion of children receiving mental health services is due to the use of managed care mechanisms although, as the article indicates, managed care mechanisms were widely used by the insurance companies. Nor is there an explanation for the enormous drop in utilization that occurred specifically between 1995 and 1996, following a period in which there had been increases. It cannot be determined either what the impact of the reduction in length of treatment is for the children served, since data on outcome are not available for this sample. However, it is clearly important to better understand the reasons for these findings, and, especially, to better understand their impact on the lives of children and families.

Table 1. Enrollment and Utilization – Ages 0 to 17

Year	Covered Lives	Inpatient Users		Outpatient Users		All Users	
		N	%	*N*	%	*N*	%
1993	1,054,076	3,610	0.34%	44,553	4.23%	45,283	4.30%
1994	1,129,720	4,298	0.38%	45,946	4.07%	47,526	4.21%
1995	1,013,509	3,720	0.37%	57,676	5.69%	58,270	5.75%
1996	1,044,843	2,199	0.21%	30,635	2.93%	31,443	3.01%
Change	-0.88%		-38.55%		-30.63%		-29.95%

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