



Data Trends

Summaries of Current Research Findings
in the Children's Mental Health Field


issue numbers 31-48
december, 2001



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DATA TRENDS

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

Data Trends are produced by the Research and Training Center for Children's Mental Health in Tampa, Florida to increase the dissemination of current research findings in the area of children's mental health services. Each issue of *Data Trends* summarizes a current publication in the children's mental health area to alert the field to current findings and activities. A citation is given for each summary so the readers will be able to retrieve the original document for further examination.

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Source: Holden, E. W., Friedman, R. M., & Santiago, R. M. (Eds.). (2001). The National Evaluation of the Comprehensive Community Mental Health Services for Children and Their Families Program [Special Issue]. *Journal of Emotional and Behavioral Disorders*, 9(1).

The special issue of this journal contains six articles that present findings from the national evaluation. The evaluation has been conducted by ORC Macro, Inc., in collaboration with the University of South Florida and other partners. The special issue also contains an introductory article by Gary De Carolis of the Center for Mental Health Services, and a concluding commentary by Barbara Burns of Duke University. The articles offer an overview of the evaluation, provide descriptive data on the population of youngsters served, provide data on system of care development, describe the "System of Care Practice Review," discuss expenditures and sustainability, and family participation.

This is the most comprehensive description of the evaluation and its findings that currently exists. However, the issue does not include findings from the comparison study in which five federally-funded system of care communities are compared to five non-federally-funded communities because data from this study were not available at the time these articles were prepared. Preliminary findings from the comparison study were presented at a special meeting on the overall program in Washington, D.C. on Feb. 6 and 7, and will again be presented at the annual research meeting of the Research and Training Center for Children's Mental Health, in Tampa Florida, Feb. 25-28, 2001.

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Source: Hodges, K., & Wotring, J. (2000). Client typology based on functioning across domains using the CAFAS: Implications for service planning. *The Journal of Behavioral Health Services and Research*, 27(3), 257-270.

The area of impairment is a critical issue in children's mental health, as it helps to define serious emotional disability (SED) and identifies those children most in need of services. As pointed out by Canino et al. (*Data Trends* #25), impairment is a multifaceted construct that is difficult to measure. "[I]t is possible that a child's functioning maybe be highly impaired in one area and relatively functional in another...the difficulties in distinguishing between impairment and diagnosis are further compounded when degrees of functioning must also be ascertained" (*Data Trends* #25).

This current article examines Child and Adolescent Functioning Assessment Scale (CAFAS) ratings in a new way. Instead of looking just at youth who score at the severe levels of impairment on the CAFAS subscales, Hodges and Wotring use a cluster analysis technique to form new typologies that cut across subscales.

Youth demographics (N = 4,758)	
<i>Age and Sex:</i>	
age range:	7-17
mean age:	11.9
% of preadolescents:	54%
Male:	61%
<i>Ethnicity*:</i>	
Caucasian:	72%
African descent:	21%
Hispanic:	2.2%
Other/multi:	4.8%
<i>Household demographics</i>	
<i>Annual income:</i>	
> \$10K	36%
\$10-20K	35%
< \$20K	29%
<i>Caregiver status</i>	
Divorced/Separated	48%
Married	27%
Never married	23%
Unknown	2.0%
Mother figure in home	84%
Father figure in home	47%
<i>*Representative of Michigan</i>	

For this analysis, Hodges & Wotring used data on 4,758 youth being treated by 26 community mental health service providers (CMHSPs) in the state of Michigan between March 1997-March 1998 (see sidebar). Goals of the analysis were to identify degree of impairment among youth being served, to inform policy and resource allocation, and to help service providers assess their treatment programs.

Cluster analysis identifies similar groupings that occur within larger groups; i.e., data are identified and clustered (or, "rearranged") into new groupings (called "clusters"). This method allows researchers to look at the same data from different perspectives. In this study, mean youth subscale scores (i.e., School/Work, Home, Community, Behavior toward Self and Others, Moods/Emotions, Self-Harmful Behavior, Substance Use, and Thinking) from the CAFAS were "reorganized" into five clusters. CAFAS scales for caregiver resourcefulness, past and current service use, and DSM-IV diagnoses were also utilized in the study.

Based on mean CAFAS subscale scores showing degree of impairment for the total sample, the authors devised five clusters hierarchically ranked from most to least impaired. Thus, the first cluster identified the most impaired youth. The five clusters were: 1) Substance Users/Externalizing, 2) Comorbid/Self-Harmful, 3) Delinquent, 4) Marked/School Problems, and 5)

Adjustment Problems with Impairment/Secondary Prevention. While the sidebar shows demographics for the total sample (N = 4,758), Table 1 outlines the demographics for the total sample once "rearranged" into the five clusters (household demographics were relatively consistent across clusters).

Results revealed that the smallest number of youth (6% of the total sample) fell under the Substance Users/Externalizing category, yet this group had the highest level of impairment overall. These youth were impaired in multiple areas, including "...behavioral problems at school and at home, delinquent behavior, and, in some cases, depressed feelings and caregivers who are having difficulty providing the nurturance and guidance needed by these youths" (p. 266). Rates of past and current legal problems for this group were "equal to youths in the Delinquent cluster" (p. 266).

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The Comorbid/Self-Harmful cluster was marked by youth who had behavioral problems in all eight domains of the CAFAS subscales and who showed the highest levels of Self-Harmful behavior.

The Delinquent cluster found high CAFAS subscale scores in School, Home, and Community; youth falling into this cluster had higher mean scores for problems in the community than did youths grouped in the Substance Users/Externalizing cluster. However, even though youth in the Delinquent cluster showed high impairment, “only a small number showed evidence of other complicating psychiatric factors” (p. 266).

Table 1: Youth demographics by cluster (N = 4, 758)		
Cluster	(n)	%
<i>Substance Abuse/Externalizing</i> <ul style="list-style-type: none">• 13 yrs or older: 97%• gender: not reported by authors	264	06%
<i>Comorbid/Self-Harmful</i> <ul style="list-style-type: none">• age: “mixed”• male: 55%	651	13%
<i>Delinquent</i> <ul style="list-style-type: none">• 13 yrs or older: 63%• male: 77%	681	14%
<i>Marked/School Problems</i> <ul style="list-style-type: none">• 12 years or younger: 64%• male: 67%	1,469	13%
<i>Adj Prob w/ Impairment/ Secondary Prevention</i> <ul style="list-style-type: none">• 12 years or younger: 63%• male: 50%	1,719	36%

Of youth in the Marked/School Problems cluster, the most often occurring high CAFAS subscale scores were in the area of School/Work.

More youth were grouped under the Adjustment Problems with Impairment/Secondary Prevention cluster than any other, and this group revealed a high incidence of adjustment and anxiety disorders. The term “secondary prevention” was included because youths in this group would most likely benefit from “effective and timely intervention” (p. 260).

In conclusion, the ability to assess degree of impairment, and in what areas, has implications for policy and for resource allocation. The 26 service providers who participated in this study responded positively to the information generated by cluster analysis. They confirmed that the findings corresponded to their in-service experiences (e.g., “many delinquents were being seen in their clinics” p. 267), and were interested in further groupings (e.g., terminations from treatment, pre- and post- intake changes, etc.) to help them improve outcomes through appropriate allocation of resources.

Although there are not enough data to conduct such analyses now, “preliminary analyses suggested that there was less success with youth” in the Substance Users/Externalizing and Delinquent clusters” (p. 267), and “identification of treatment protocols for each of the client types is currently being undertaken” (p. 267). A proxy for group membership was also devised (resulting in the term, “CAFAS Client Type”) for new clients so that “specialized treatment protocols for these youths can be developed and studied for their effectiveness and friendliness to families” (p. 267). Cluster analysis is a relatively new technique for looking at data, and more work needs to be done in this area with other impairment measures. However, it appears that the new typologies generated by cluster analysis can be helpful to service providers.

Source: Garland, A. F., Aarons, G. A., Saltzman, M. D., & Kruse, M. I. (2000). Correlates of adolescents' satisfaction with mental health services. *Mental Health Services Research*, 2(3), 127-139.

Adolescent satisfaction with mental health services is an especially difficult construct to measure. Factors unrelated to actual treatment, such as previous experiences with mental health services, unrealistic expectations of services, or receipt of services not initially sought out by the adolescent (e.g., court ordered, or coerced by a caretaker), may influence adolescent reports of satisfaction with services. Because stakeholders are beginning to look toward satisfaction data to inform funding and other policy-related decisions, it is "critical to determine whether there are factors associated with satisfaction that may be outside the influence of a service provider...and what factors can be controlled by service providers" (p. 128).

The authors review previous research on satisfaction with services, and report on findings from a new instrument, the Multidimensional Adolescent Satisfaction Scale (MASS; Garland, et al., 2000). They administered the MASS to 180 randomly selected adolescents currently or previously receiving mental health services in San Diego County, California, and found that "[t]he most significant correlates of adolescents' satisfaction with services are client attitudinal variables, such as treatment expectations and choice/motivation for treatment, as well as self-reported severity of mental health problems" (p. 135).

The MASS is a 21-item instrument that is completed by the adolescent, and measures satisfaction with services in four areas: 1) the perceived quality of the relationship between the counselor and adolescent; 2) the adolescent's perception of whether his or her needs are being met; 3) the adolescent's perception of the effectiveness of the treatment; and 4) the presence of conflict between the adolescent and counselor, according to the adolescent. The Adolescent Self-Report (YSR) was also used to determine levels of psychopathology as reported by the adolescents. In addition, adolescents completed surveys on service use variables (e.g., type, duration, and referral for treatment) and on their treatment attitudes and expectations. Five domains were then analyzed, based on survey responses and on data generated by the MASS and YSR: 1) demographics, 2) service use, 3) referral to treatment, 4) attitudes and expectations, and 5) mental health problems.

Adolescents participating in the study ($N = 180$) reported on services currently or previously received (within six months) at one of three sites: 1) a specialty clinic for maltreated adolescents, 2) a high school-based health and social services center offering mental health services, and 3) a university affiliated child and adolescent outpatient psychiatric community clinic. More than half of the total sample (52%) were female. The ethnic/racial makeup was representative of the three groups receiving services most often in the county: Caucasian, 37%; Latino, 33%; and African-American, 33%. There were no significant differences in distribution of race/ethnicity and gender across the three sites. Adolescents had or were currently receiving individual counseling (68%), group therapy (29%), or family therapy (26%; these categories are not mutually-exclusive), and almost half (43%) of the total sample indicated severe levels of psychopathology on the YSR.

Positive correlations with adolescent satisfaction were found with regard to the type of site where treatment was received (i.e., highest satisfaction ratings were found for the specialty clinic for maltreated adolescents), client attitudinal variables (i.e., the involvement of the adolescent in his or her self-report of mental health problems, as well as in seeking and being motivated to remain in treatment), and the reason for seeking treatment (i.e., "to deal with something bad that happened"). Internalizing behavior problems and *lower* total behavioral problems correlated with high satisfaction. Duration of treatment was also a significant factor in high satisfaction ratings (i.e., the longer the treatment, the higher the ratings).

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Variables that did *not* correlate with high satisfaction ratings were age, gender, race/ethnicity, single vs. two-parent families, status in treatment, type of treatment received, total number of lifetime visits, prior history of receiving care, role of parent, courts, or school system in seeking services, and externalizing behavior problems (p. 134-35).

Because adolescents with negative expectations about treatment were more likely to report dissatisfaction with services, the authors suggest that negative expectations should be “identified early and addressed quickly” (p. 137). They also consider the possibility that motivation to remain in treatment is a factor that service providers might be able to influence to some degree. The authors discuss some limitations to the study, and report that the clinical validity and utility of the total scale and subscales of the MASS are “still relatively untested” (p. 131). However, this article makes an important contribution to research on adolescent satisfaction with services and, through its literature review and current findings, provides important information useful to policymakers and service providers alike.

Reference: Garland, A. F., Saltzman, M. D., & Aarons, G. A. (2000). Adolescent satisfaction with mental health services: Development of a multidimensional scale. *Evaluation and Program Planning*, 23, 165-175.

Source: Briggs-Gowan, M. J., Horwitz, S. M., Schwab-Stone, M. E., Leventhal, J. M., & Leaf, P. J. (2000). Mental health in pediatric settings: Distribution of disorders and factors related to service use. *Journal of the American Academy of Child & Adolescent Psychiatry*, 39(7), 841-849.

This article reports on a study intended to focus on three areas of concern: 1) How many children with emotional/ behavioral and psychiatric problems are being seen by pediatricians, 2) What factors influence parental reports of these emotional/behavioral and psychiatric problems to their pediatricians? and, 3) How many parents seek mental health services for their children?

Nineteen randomly selected pediatric offices agreed to participate in this study, and data on children and families seen by these pediatricians were collected at baseline and at one-year follow up. The pediatricians were affiliated with health centers, managed care providers, or had private practices in the greater New Haven, Connecticut area. Most children were Caucasian (81.6%). African-American children comprised 10.3% of the total sample, and 6.2% were Hispanic. Almost half of the children were girls (48.9%), and the mean age of the children in the total sample was 7.17 years (SD = 1.41). Almost all respondents were mothers (96.4%), and most respondents were married or cohabitating (81.9%).

With regard to baseline interviews, children from 1,886 families were screened for behavioral problems with the Child Behavior Checklist (CBCL; completed by parents) and the Provider Rating Form (PRF; completed by physicians). Of this group, 918 children screened positive for behavioral problems; added to this sample were 465 families of children who screened negative, creating an initial group of 1,383. This article reports on families who completed both baseline and follow-up interviews ($N = 1,060$).

Table 1

Child psychiatric disorders as reported by parents on the DISC-R

Any DISC-R disorder	16.8%
Internalizing disorder	7%
Externalizing disorder	12%
Both internalizing and externalizing	44%

Parental reports of discussion and service use

Discussed emotional/behavioral problems with pediatrician	21%
Discussed child's psychiatric disorder with pediatrician	55%
Sought service use with pediatric discussion	46.8%
Sought service use without pediatric discussion	18.2%

Follow-up interviews addressed a number of issues. First, parents were interviewed with the Diagnostic Interview Schedule for Children (DISC-R) to determine the presence of psychiatric disorders in their children. Second, parents were asked: "In the past year, did you talk to [child's] doctor about any problems with [child's] behavior, emotions or nerves?" Parents were also asked whether their child had ever received any kind of mental health service (i.e., psychologist, school psychologist, psychiatrist, counselor, therapist or social worker) for any

emotional or behavioral problems during the previous year. Finally, parents themselves were screened for any of the following during the previous year: 1) anxiety or depression, 2) potential child abuse, 3) stressful life events, and 4) parental support systems.

Table 1 reports on child psychiatric disorders identified by the DISC-R, and on parent reports of discussions with their child's pediatrician about emotional/behavioral problems and with service use. The authors note that "fewer than half of parents who reported a child disorder also reported having consulted their pediatrician about behavioral/emotional concerns" (p. 847). With regard to DISC-R disorders, boys showed higher rates of ADHD (10.3%) and externalizing disorders (14.8%) than girls (5.6%; 9.7% respectively). Race and ethnicity were not associated with the type of childhood disorder, with discussion about the child's emotional or behavioral problems in the pediatric setting, or with the receipt of mental health services outside of the pediatric setting.

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“The presence of parental depression/anxiety was related to 2- to 3-fold increases in the rates of each type of [childhood] disorder, [and] possible physical abuse was associated with increased rates of externalizing disorders and any disorder” (p. 845). Internalizing disorders were associated with fewer parental social support systems. Parents with depression/anxiety and who were possibly abusing their children were likely to report psychiatric disorders in their children on the DISC-R. However, these factors (depression/anxiety and possible child abuse) were *not* found to initiate discussion in pediatric settings about children’s emotional and behavioral problems. Of parents who sought mental health services for their children, the three factors most prevalent were: 1) having discussed concerns about their child with a pediatrician, 2) being single, and 3) experiencing stressful life events.

The authors conclude that a correlation certainly exists between parents who discuss their child’s emotional and behavioral problems with their pediatrician and parental help-seeking behavior. However, these findings “...stress the importance of improving pediatrician’s ability to identify and refer families in distress, and underscore the need to support pediatricians in their role as gatekeepers for mental health services” (p. 848)

Source: Garland, A. A., Hough, R. L., McCabe, K. M., Yeh, M., Wood, P. A., & Aarons, G. A. (2001). Prevalence of psychiatric disorders in youths across five sectors of care. *Journal of the American Academy of Child and Adolescent Psychiatry*, 40, 4, 409-418.

Aarons, Gregory A., Brown, Sandra A., Hough, Richard L., Garland, A. F., & Wood, P. A. (2001). Prevalence of adolescent substance use disorders across five sectors of care. *Journal of the American Academy of Child and Adolescent Psychiatry*, 40, 4, 419-426.

These articles report on initial findings of the NIMH-funded "Patterns of Youth Mental Health Care in Public Service Systems" study, implemented in San Diego County, California. Both studies report on a random sample of 1,715 children and adolescents who were receiving services during the previous year in one or more of the following five service sectors: alcohol and drug (AD), child welfare (CW), juvenile justice (JJ), mental health (MH), and public school services for youth with serious emotional disturbance (SED). The sample for both articles is "somewhat unusual," as these are youth receiving services in at least one sector of care but "not necessarily identified as needing or receiving mental health services" (p. 411). The first article reports on psychiatric disorders found in a subsample of the youth in this study ages 6-18, and the second article examines substance use disorders found among youth ages 13-18. About one-third of the youth in each study were receiving services from more than one sector.

Prevalence of Psychiatric Disorders in Youths Across Five Sectors of Care

The Diagnostic Interview Schedule for Children (DISC) was used to determine the presence of a psychiatric diagnosis for this subsample ($N = 1,618$) of youth ages 6-18. Results indicate that 54% of youth met criteria for at least one DSM-IV disorder, and almost one-fourth (23%) met criteria for at least two diagnoses. Table 1 provides age and gender distribution, as well as selected prevalence estimates of diagnostic

Table 1	AD (<i>n</i> = 166)	CW (<i>n</i> = 426)	JJ (<i>n</i> = 478)	MH (<i>n</i> = 876)	SED (<i>n</i> = 397)	Total (<i>N</i> = 1,618)
Percentages	3.6	32.8	30.1	54.5	15.5	100
Age groups						
6-11	0	45.9	0	23.5	22.6	25.1
12-15	15.5	32.3	13.5	32.7	45.2	30.0
16-18	84.5	21.8	86.5	43.8	32.3	44.9
Gender						
Male	70.2	45.5	84.5	65.6	75.4	65.8
Female	29.8	54.4	15.5	34.4	24.6	34.2
Any disorder	60.3	41.8	52.1	60.8	70.2	54.0
ADHD/disruptive	54.4	38.7	47.9	55.3	65.6	49.7
ADHD	21.1	20.8	12.7	28.8	42.3	24.4
Conduct Disorder	32.1	16.1	29.9	28.1	34.3	24.9
Oppositional Defiant	19.3	13.5	14.5	20.2	22.6	17.4
Anxiety disorders	14.0	8.6	8.5	11.9	14.5	9.9
Separation anxiety	10.6	4.6	3.7	6.5	7.9	4.9
Mood disorders	11.4	5.2	7.0	8.5	9.4	7.0
Major depression	8.9	4.7	4.7	5.7	7.9	5.1

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impairment by sector. Males were common in four out of five sectors, and older youth were served most often by AD, JJ, and MH. More youth served by the SED sector met criteria for any disorder (70.2%) than youth in any other sector. The fewest number of youth meeting criteria for any study disorder were those served by CW. Rates of ADHD and disruptive disorders were higher than anxiety and mood disorders combined.

Findings also included significant differences for specific diagnoses. For example, “The rates of ADHD decline with age, whereas the rates of conduct disorder (CD) are higher among adolescents than among children. The rate of posttraumatic stress disorder (PTSD) is higher among older adolescents than among children, and the rates of major depression also increase with age.... Rates of ADHD and CD were significantly higher among males than females, and the rates of PTSD, separation anxiety, and major depression were significantly higher among females than males” (p. 414).

In order to understand the extremely high rates for any disorder (54%) found in this study, the authors compare their findings with those of the MECA study. The MECA study reported on 1,285 youth (ages 9-17) with disruptive and/or depressive disorders who had used mental health or substance abuse services; it provides one of few community samples that can compare to the present study. Only 29% of youth in the MECA study met DSM-III criteria for impairment, and rates of ADHD and disruptive disorders were higher in the present study than in the MECA sample (49.7% and 11.5%, respectively). However, rates of anxiety disorders were almost half as high in the present study (9.9%) when compared with the MECA sample (17.5%, excluding simple phobias), and rates of depressive or mood disorders were about the same for each

Table 2	AD (<i>n</i> = 137)	CW (<i>n</i> = 190)	JJ (<i>n</i> = 419)	MH (<i>n</i> = 547)	SED (<i>n</i> = 230)	Total (<i>N</i> = 1,036)
Any Substance						
Lifetime	82.6	19.2	62.1	40.8	23.6	39.5
Past Year	42.6	11.0	36.9	22.9	16.0	24.1
Alcohol						
Lifetime	68.9	16.6	48.6	32.2	19.1	31.5
Past Year	31.1	7.8	28.1	17.2	12.1	18.1
Cannabis						
Lifetime	54.3	8.3	44.5	29.1	14.6	26.6
Past Year	21.7	5.5	15.2	10.3	8.3	11.3
Amphetamine						
Lifetime	37.8	3.7	22.6	13.8	4.9	12.8
Past Year	15.2	1.9	10.3	6.7	2.8	6.2
Hallucinogen						
Lifetime	19.6	0.09	9.0	5.8	2.8	5.2
Past Year	4.4	0.0	3.2	1.2	0.7	1.6
Cocaine						
Lifetime	13.0	0.5	2.2	1.3	0.0	1.2
Past Year	2.2	0.0	0.5	0.4	—	0.3
Opiate						
Lifetime	2.2	0.0	0.5	0.2	0.0	0.3
Past Year	0.0	—	0.0	0.0	—	0.0

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study (7.0% versus 7.5% for the MECA study). Adding that other community samples have reported high prevalence rates of anxiety as well, the authors suggest that "...youths with ADHD and disruptive disorders are significantly overrepresented in public sectors of care and/or that youths with anxiety disorders are underrepresented in these sectors of care" (p. 416).

Results from this study reveal that a high percentage of youth with ADHD and other disruptive disorders are served by sectors providing mental health services (i.e., AD, MH, and SED), while many youth with a disorder have no contact with mental health service providers. Policy implications of these findings suggest that more attention needs to be paid to the "implementation and testing of empirically supported interventions for ADHD and disruptive behavior disorders" (p. 417), and that "improved screening, identification, and referral mechanisms" (p. 417) for youth at risk for psychiatric disorders must occur in CW and JJ. The authors also call for "improved efforts to identify and refer youths from community settings (e.g., school and primary care) with anxiety and mood disorders" (p. 417) to mental health service sectors.

Prevalence of Adolescent Substance Use Disorders Across Five Sectors of Care

Youth in this subsample ($N = 1,036$) were between the ages of 13-18 and were interviewed with the Composite International Diagnostic Interview-Substance Abuse Module (CIDI-SAM). Diagnoses for substance use disorders (SUDs) were classified according to the DSM III, DSM I-V, and ICD-10. Youth were interviewed on their use of alcohol, cannabis, amphetamines, hallucinogens, cocaine, and opiates: a) during their lifetime, and b) in the past year.

Findings indicate that older youth (ages 16-18) were more than three times as likely to have an SUD for any of the above substances than were youth ages 13-15 (52.5%, and 15.6%, respectively), and were almost three times as likely to meet criteria for an SUD during the past year (30.8% and 11.8%, respectively). Older youth were also found to have higher SUD prevalence rates for specific substances than were younger children.

Males tended to have higher prevalence rates than females for any substance during one's lifetime (44.0% and 29.6% respectively), and during the previous year (27.9% and 16.0%, respectively). This pattern of higher use among males than females was also prevalent for individual substance use.

Table 2 illustrates prevalence rates by sector and substance, and reveals the highest lifetime and previous year prevalence rates among youth served by AD and JJ. However, youth served by the MH sector comprise the next largest group; 40.8% of these youth meet criteria for having an SUD during their lifetime, and 22.9% met criteria for the previous year.

Implications of these findings suggest that SUDs occur among youth not treated by the AD sector, and that evaluation of youth should include a "structured assessment of substance use patterns and SUDs" (p. 424), along with investigations into the psychosocial relationships (i.e., family, academic, peer) among youth who use substances and the relationship, if any, between substance use and the cause or exacerbation of mental health problems.

Finally, with regard to findings of both studies, "For youths involved in multiple sectors of care or with multiple providers, treatment planning should take into account the roles of all providers in order to coordinate appropriate levels of care" (p. 424).

Source: Cuffe, S. P., Waller, J. L., Addy, C. L., McKeown, R. E., Jackson, K. L., Moloo, J., & Garrison, C. Z. (2001). A longitudinal study of adolescent mental health service use. *Journal of Behavioral Health Services & Research*, 28(1), 1-11.

Data from this longitudinal study of adolescent mental health service use for youth at risk for suicide or with depression reveal a dramatic decrease in treatment use over time. Data were collected during three cycles (i.e., 1987-1989, 1991-1994, and 1994-1995) on a community sample of students in the Southeast. Data were analyzed to capture relationships between race, gender, psychiatric diagnosis, socioeconomic status, and mental health service use for both inpatient and outpatient care.

For the first cycle, students in grades 7 through 10 were screened for depressive symptomatology and suicidal ideation with the Center for Epidemiologic Studies Depression Scale (CES-D). This 20-item instrument asks adolescents to report on their feelings during the previous week; added to the CES-D were three questions designed to screen for suicidal thoughts or feelings during the same time period. As students in the first sample reached their senior year in high school, they were interviewed again, i.e., during the second cycle of interviews. The following year, students who had participated in the second cycle of interviews were mailed questionnaires regarding service use only (i.e., during cycle three). A little over half of the adolescents in each sample were female.

For students in the first two cycles, a DSM-IV diagnosis was determined using the Schedule for Affective Disorders and Schizophrenia for School-aged Children (K-SADS). The K-SADS measures psychiatric symptomatology and suicide-related thoughts and activities in children ages 6-17. Impairment and functioning were assessed with the Children's Global Assessment Scale (CGAS). Socioeconomic status, depressive symptomatology, and treatment history were also reported during semi-structured interviews with parents.

As shown in Table 1, findings reveal that 24% of all students in cycle one reported having received mental health treatment in the previous year. That percentage dropped to 9% in cycle two, and to 3% in the final cycle. High-risk students in cycle one had the highest levels of depression (48%) and treatment (32%); this pattern was similar for high-risk students in cycle two (15% and 13.5% respectively). The methodology used for third cycle respondents precluded percentages relating to diagnoses.

Table 1	Cycle 1 (1987-1989) N = 579	Cycle 2 (1991-1994) N = 488
Grade	7 through 10	High School Senior
Any disorder	26%	6%
Any treatment in the past year	24%	9%
Any treatment for those with disorder	54%	49%

With regard to the differences over time, Cuffe et al. determine that selective attrition cannot account for the dramatic drop in service use by students. Rather, they suggest that decreased service use in late adolescence may be the result of other factors, such as: 1) having less parental influence; 2) having dropped out of high school, where mental health services are often available to youth, and; 3) and economic burdens related to the transition from school to work or college.

However, it is striking that the numbers of adolescents with psychiatric diagnoses decrease drastically over time. Some explanations for these findings may be due to the role that parents played in helping to secure diagnoses as their children grew older. According to the authors, "[a] possible explanation of this decrease is that the first cycle diagnoses relied heavily on the parent's report of symptoms in reaching a diagnosis. In 7th, 8th, and 9th grade the parent (usually the mother) felt very comfortable reporting symptoms for their children. In the second cycle, however, the interviewers noticed that many parents have very little knowledge of their adolescent's symptoms, particularly internalizing symptoms. This may have decreased the ability to reach a threshold for diagnoses in the second cycle. In addition, older adolescents may be more likely to deny or disavow emotional or behavioral problems" (p. 9).

In conclusion, these data indicate the need for further research on service use patterns and help-seeking behaviors among adolescents and their families.

Source: Mendel, Richard A. (2001). *Less cost, more safety: Guiding lights for reform in juvenile justice*. Washington, DC: American Youth Policy Forum. Retrieved from: <http://www.aypf.org/lesscost/>

A new report issued by the American Youth Policy Forum highlights programs and systems that have had success in reducing adolescent crime at a reduced cost. Among the initiatives that are highlighted is Wraparound Milwaukee. The report indicates that, "Countywide, the program has reduced the daily population in residential treatment programs from 360 (plus wait list) down to 135 per day. In addition, psychiatric hospitalization of adolescents has declined by 80 percent since Wraparound Milwaukee went into effect."

The report further indicates that, "Among 169 delinquent youth for whom one year follow-up data were available in October 2000, the average number of arrests per participant declined from 2.32 arrests during the year prior to enrollment in Wraparound Milwaukee, to .98 arrests per participant during the year of enrollment, to .63 arrests per participant in the year following treatment."

Although Wraparound Milwaukee has never been included in a formal study that compares it with other communities, nor had a thorough independent evaluation, it has received considerable favorable attention as a result of the very positive data that it does collect. These data are also consistent with some of the data presented in the comparison study of the national evaluation, which indicates favorable outcomes on delinquency in the comparison between Stark and Youngstown, and is part of a growing picture showing positive results with youth in the juvenile justice system.

Information on this report was disseminated through the Child Welfare League of America list serve on juvenile justice issues. The report can be viewed at <http://www.aypf.org/lesscost/>

The American Youth Policy Forum is a non-profit professional development organization based in Washington, DC. Its goal is to provide policy relevant information for policymakers and their aides. The report identifies eight challenges facing the juvenile justice system, and presents information on programs that address each of these challenges. The challenges are:

- 1) Reducing over reliance on incarceration for non-dangerous youthful offenders;
- 2) Developing a continuum of community-based sanctions and interventions for delinquent but non-dangerous youth;
- 3) Employing research-proven program strategies to reduce delinquency;
- 4) Identifying and intervening intensively with youth at extreme risk for chronic delinquency;
- 5) Providing comprehensive support to youth with behavioral disturbances;
- 6) Ensuring quality treatment and youth development services for incarcerated youth;
- 7) Providing quality education and career development services to help youth outgrow delinquency and assume productive roles in society;
- 8) Reducing inappropriate detention for youth awaiting trial or pending placement.

Source: Walrath, C. M., Sharp, M. J., Zuber, M., and Leaf, P. (2001). Serving children with SED in urban systems of care: Referral agency differences in child characteristics in Baltimore and the Bronx. *Journal of Emotional and Behavioral Disorders*, 9(2), 94-105.

This article reports on characteristics of children with severe emotional disturbance (SED) and their families who receive services at two inner-city system of care (SOC) sites. Some interesting trends were revealed about the psychosocial and sociodemographic backgrounds of these children when data were examined according to the agency that referred them to the SOC site in their community. The authors note that this research builds upon on the findings of Rosenblatt et al. (1998) and Walrath et al. (1998), reported in *Data Trends* #3 and #4, respectively. This research has implications for policy, services, and outcomes research.

System-of-care sites were the East Baltimore Mental Health Partnership (EBMHP) in Maryland, and the Families Reaching in Ever New Directions (FRIENDS) program, located in the South Bronx, New York City. The sites are funded by the Center for Mental Health Services (CMHS) as part of the Comprehensive Services for Children and Families Demonstration grant project.

Both sites were chosen for analysis due to their similar culturally competent and family-oriented program goals, target populations (i.e., minority, urban poor) and service components (e.g., case management, crisis intervention, home-based interventions, etc.). Data were gathered on a total of 696 children and their families. Combined demographic data indicate that children referred to the sites were predominantly African-American (70%), males (69%), and with an average age of 11 years (ages ranged from 2-21 years, $SD = 3.45$). Eighty-four percent of families participating in this study reported annual incomes of less than \$15,000.

Referrals to each SOC site were made by the Departments of Juvenile Justice (DJJ), Social Services (DSS), the public school system (PSS), the public mental health system (MH), family, and other referrals (including child advocacy systems and the public health sector). When reviewing these data, it becomes clear that each referring agency believes that SOC services will benefit the unique needs of their clients. Findings of this study are summarized below, and reveal the diversity and complexity of the populations served by these SOC sites:

- Hispanics were referred more often by family members than by DJJ, DSS, and PSS.
- African Americans were referred at high rates by DJJ, DSS, and PSS.
- DJJ referrals consisted mostly of older males with more functional impairment and who have had less contact with mental health service providers than children referred by other agencies. Mental health services for these children may not be readily available in the DJJ system.
- MH referred children with greater risk factors and who had already received more mental health services than did children referred by other agencies. While the data do not report on the type of mental health services these children received prior to referral, the fact that they were referred would suggest that additional, comprehensive services are needed for these children.
- DSS referred more females with less functional impairment. These children were also more likely to live with a married, female caretaker.
- PSS referred the highest percentage of young children, and many of them lived with a female caretaker who had never been married. Children referred by PSS had lower risk factor indexes than other children, but they had relatively high levels of impairment and moderate histories of previous service.

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Other implications gleaned from these data suggest future challenges to SOC research. For example, noting the high percentage of older males referred by DJJ, and the high percentage of females referred by DSS, the authors suggest that age and gender might be re-conceptualized under the SOC philosophy of cultural competency. Furthermore, the children referred from PSS may be too young to present with high risk factor indexes, but high levels of impairment suggest that schools may not be equipped to provide the additional services that children with SED and their families may need.

These data suggest that there are both similarities and differences among inner-city populations receiving SOC services. However, the data illustrate that these CMHS sites are doing what they were intended to do; i.e., they are reaching a varied group of children and their families who have multiple service needs.

Source: dosReis, S., Zito, J. M., Safer, D. J., & Soeken, K. L. (2001). Mental health services for youths in foster care and disabled youths. *American Journal of Public Health, 91*(7), 1094-1099.

This article is of value because it presents information on the prevalence of mental disorders, and the use of mental health services for a population of children receiving Medicaid. Specifically, the article focuses on children enrolled in a fee-for-service Medicaid program in a suburban county in a mid-Atlantic state ($N=15,507$). Claims data were examined for a 12-month period. Such data were not available for children receiving services through a Medicaid managed care program.

Three groups of children were studied: children in foster care; children whose families were receiving Supplemental Security Income (SSI) because of a developmental, physical, or emotional disability; and those receiving other types of aid primarily because of low family income.

Rates of mental disorders, as determined by the diagnoses reported in the claims data, were 2.2 times higher for children in foster care (57%) than for children receiving SSI benefits (26%), and 16 times higher than for children receiving other benefits (4%). The authors point out that while it is not surprising that youngsters receiving Medicaid because of limited financial resources would have lower prevalence rates than the other two groups, the 4% prevalence rate that was obtained is markedly lower than found in other studies. It should be noted, however, that this was not a community epidemiological study in which a large number of children in a community are surveyed regardless of whether they received any services. Rather it is a study in which "cases" could only be identified if youngsters received services, and therefore represents an underestimate of the actual prevalence.

Other notable findings were:

- The highest utilization rate for children in foster care was for children in the 6-14 year age range, where the rate was 87% compared to 61% for 15-19 year olds, and 28% for birth to 5 year olds;
- While 60% of the females in foster care received at least one mental health service, only 14% of the females receiving SSI benefits received any mental health service. The findings for males showed very little difference between foster care (64% received at least one service) and SSI (56% received at least one service);
- While approximately the same percentage of Caucasian and African-American youths in foster care received at least one service (76% for Caucasian and 70% for African-American), there was a marked difference for the SSI group (66% of African-American children received at least one service compared to only 26% of Caucasian children).

These findings are of interest for showing the high rates of use of mental health services by children in foster care, the different rates of use across the three groups, and the surprisingly low rate of use by children receiving Medicaid primarily because of low family income. There are also important gender, race, and age differences that merit further study.

Source: Stiffman, A. R., Hadley-Ives, E., Dore, P. Polgar, M., Horvath, V., Striley, C., & Elze, D. (2000). Youths' access to mental health services: The role of providers' training, resource connectivity, and assessment of need. *Mental Health Services Research*, 2(3), 141-154.

This study highlights the important role that professionals in various public service sectors play in helping youth with emotional and behavioral problems receive mental health services. Findings indicate that professionals who come into contact with youth (e.g., physicians, social workers, teachers, and police officers, etc.) are most likely to refer youth for mental health services when they feel capable of making a mental health assessment of the child, *and* when they are familiar with the mental health services available in the community for that child. This study reveals that the combination of assessment skills and knowledge of referral sources plays a greater role in helping youth receive services than do youths' own self-reports of internalizing and externalizing problems.

The authors report on the Gateways and Pathways Project (GAPP), conducted in 1996. The GAPP study builds upon the findings of the Youth Service Project (YSP), which reported on youth ages 14-18 who were already involved with four public service sectors (i.e., education, health services, juvenile justice, and child welfare) in the city of St. Louis (see *Data Trends* #28). For the GAPP study, 282 youth from the YSP sample were interviewed for self-reported mental health problems and for names and addresses of the agencies or professionals from whom they had received help with these problems. The authors refer to the agencies or professionals reported by the youths as "providers," and write that "[p]roviders from these sectors often have the first contact with the youth, identify the problem, provide some immediate services, and/or refer the youth to psychiatric or other specialty mental health services" (p. 142).

The 282 youth reported that they had received "some help in the last six months" from a total of 533 different providers, out of which the authors were able to locate 364. These providers were sent surveys to assess their level of formal education or in-service training in mental health issues; the degree to which they had connections with mental health resources in the community; and other characteristics including treatment and referral practices. Of the 222 providers who responded to the survey, about 50% were associated with the education sector. Almost 20% were from the mental health sector, with general health providers care the third largest responding group (12.4%), followed by juvenile justice (11%), and child welfare (7.4%).

As would be expected, respondents with professional backgrounds in psychiatry, medicine, psychology, and social work had formal training in mental health interventions. Yet professionals with backgrounds in education, counseling, and coaching received "minimal" formal training in mental health issues, and those with backgrounds in policework reported no formal training. With regard to informal training, half of the providers reported an average of 14 hours of in-service training within the last 12 months. The types of in-service training reported and the percentage of providers who had received the training were as follows: assessment and diagnosis (39%), intervention (24%), general mental health (24%), and adolescent development (35%).

Professionals with mental health backgrounds or in-service training were found to be very likely to refer youth for services, and those who reported both training *and* an on-going connection with mental health service providers were the most likely of all respondents to refer youth for services. Nevertheless, the providers surveyed for this study reported having contacts with only about one-fourth of the area's inpatient and outpatient resources. The most often reported contacts were with school psychologists, tutors, psychiatric hospitals, residential treatment centers, professional counselors, and probation officers.

In conclusion, professionals who serve children in everyday settings such as schools and neighborhoods are increasingly being called upon to identify youth with possible mental health problems and to play a role in seeking help for these youth. In-service training for professionals who see youth on a daily basis, and training that enables them to become familiar with mental health resources in the community, are crucial components to the ongoing attempt to bridge the gap between assessment and receipt of services for children and adolescents with emotional disturbances and their families.

Source: NIMH National Advisory Mental Health Council's Workgroup on Child and Adolescent Mental Health Intervention Development and Deployment. (2001). *Blueprint for Change: Research on Child and Adolescent Mental Health*. Washington, DC: National Institute of Mental Health. Retrieved from: <http://www.nimh.nih.gov/child/blueprin.pdf>

The National Institute of Mental Health (NIMH) just released its 10-year plan for advancing research on child and adolescent mental health interventions. This report, "Blueprint for Change: Research on Child and Adolescent Mental Health," articulates new directions in child mental health services research. This report is the product of a year-long evaluation of the progress made in child and adolescent mental health research over the last ten years, by the NIMH National Advisory Mental Health Council's Workgroup on Child and Adolescent Mental Health Intervention Development and Deployment.

The Executive Summary of the report begins with a very powerful statement. After briefly discussing the prevalence of mental disorders in children and adolescents, and the impairment that accompanies them, the report indicates that, "No other illnesses damage so many children so seriously" (p. 1). This is an even stronger statement about the seriousness of the problem than was included in the reports from the Office of the Surgeon General.

Three predominant themes interweave throughout the report: 1) the need for greater interdisciplinary collaboration between the behavioral and medical sciences to create new, innovative treatment models that are theoretically grounded and developmentally sensitive to the needs of children and their families, 2) the importance of promoting a dissemination-oriented view of model development "wherein dissemination is both a starting point and an end point," and 3) the need to support the dissemination and transportation of existing, effective models into both research and training curricula and mental health services systems in the community.

Much of the report focuses on basic and clinical research. However, there is a brief section that discusses systems of care under the heading, "Combined interventions and services effectiveness" (p. 64). According to the report, community-based systems of care (SOC) have become increasingly available over the last 15 years to children with serious emotional disturbance (SED) and their families. Yet, the report points out, the research base on systems of care has lagged behind the policy emphasis on creating such systems of care. The report indicates that as a result of research findings from projects like the Fort Bragg Demonstration Project, and the Stark County study, emphasis has shifted to three issues: a) studies on the clinical effectiveness of services within systems of care; b) studies on the transportability of efficacious clinical treatments into mental health services; and c) studies on the fidelity of implementation of system of care principles at the practice level.

The report indicates that studies of intensive case management, therapeutic foster care, and multi-systemic therapy demonstrate "that there are alternatives to lengthy inpatient treatment that can help maintain a child within his or her community setting" (p. 65) but that adequate supervision, therapist training, and institutional program support are essential to successful outcomes from these services. It is reported that progress has been made in identifying effective school-based interventions, and in understanding factors related to engaging families in treatment.

Much attention is paid to issues related to dissemination and deployment. There is recognition that effective knowledge transfer is labor-intensive and expensive, and it is pointed out that "agencies such as NIMH and CMHS that are interested in promoting the use of evidence-based interventions in children's mental health need to identify mechanisms to study and support this process" (p. 71). Included in the report

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is also a call for testing interventions in typical community settings to determine if they are effective, to learn how to adapt or modify them as necessary, and to learn how to transport and sustain them in the community.

As part of the report, NIMH contracted with Roland Sturm and his colleagues at Rand to develop national estimates of mental health utilization and expenditures. This part of the report, included as an Appendix (p. 91), is extremely useful, and worthy of thorough review. The bottom line estimate from these researchers is that total treatment expenditures of children with mental disorders in the U.S. in 1998 was approximately \$11.75 billion, or about \$173 per child. Adolescents (12 – 17) accounted for 59% of the expenditures, children 6 to 11 accounted for 34 percent, and children 1 to 5 accounted for 7 percent.

Some selected recommendations from the report that have implications for system of care services delivery are outlined below. The full report is available on-line, at: <http://www.nimh.nih.gov/child/blueprin.pdf>

- Encourage interdisciplinary research on the development of new treatments through the establishment of Treatments and Services Practices Networks (TSPs). “These networks could provide support to facilitate the development of culturally sensitive treatments that are feasible, cost-effective, and readily disseminated” (p. 9).
- Implement Evidence-based Practice Networks (IEPs), which would “focus on linking evidence-based interventions to dissemination, financing, and policy research” (p. 9).
- Develop a national system or series of regional systems to track the utilization and costs of child mental health services. (p. 68).
- Accelerate research on the factors that facilitate or impede the processes, transportability, or sustainability of evidence-based treatments...especially in communities or populations where disparities in access to mental health care are prevalent. (p. 75).

Source: Ringel, J. S., & Sturm, R. (2001). National estimates of mental health utilization and expenditures for children in 1998. *Journal of Behavioral Health Services and Research*, 28(3), 319-332.

Last week our Special *Data Trends* Summary #41 announced the release of the NIMH 10-year plan for advancing research on child and adolescent mental health interventions, *Blueprint for Change: Research on Child and Adolescent Mental Health*. For part of that report, NIMH contracted with Roland Sturm and colleagues at RAND to develop national estimates of mental health utilization and expenditures for children's mental health. Results of the RAND report can be found in Appendix A, pp. 91-120, of the NIMH report.

This *Data Trends* Summary #42 accomplishes two goals: 1) to alert you to the publication of the RAND report in the *Journal of Behavioral Health Services and Research*, 28(3), by Ringel and Sturm; and 2) to provide key findings of this research as outlined in Appendix A of the NIMH report, *Blueprint for Change*.

To estimate mental health spending and utilization for children, the authors aggregated data from over ten sources, ranging from national household surveys to databases reflecting managed mental health specialty health care claims, private insurance claims, and hospital inpatient and outpatient care records. These data sets included youth ages 1 to 17 who were covered by either public insurance (i.e., Medicaid and other aid programs), private insurance, or youth with no insurance. When compared with earlier reports of spending, the findings of this study reflect the rapid growth of managed behavioral health care programs in the 1990s, and verify an overall trend away from inpatient care toward greater use of outpatient care. Limitations to this study revolve primarily around the data available to the authors: "Estimating how much is spent on child/adolescent mental health care is a very complex project and requires aggregating information across data sources that are not necessarily comparable" (p. 322). Nevertheless, this analysis of expenditures and utilization across multiple data sets will be invaluable in the future when use and expenditures are tracked over time.

The implications of this study for further research in children's mental health services research are profound. According to the authors, further work must be done with regard to disparities between racial and ethnic groups and health insurance status. Limited insurance coverage for privately insured children is also of concern, and appears to result in families' use of primary care as a major setting for mental health services. Key findings from *Appendix A* of the NIMH report (p. 93-94) are reprinted below:

Key Findings

- Based on three national surveys fielded between 1996 and 1998, between 5 percent and 7 percent of all children use any mental health specialty services in a year. This average rate is similar to the rate among adults, but it obscures major differences across age groups. Only 1 percent to 2 percent of preschoolers use any services, but 6 percent to 8 percent of the 6-to-11 age group and 8 percent to 9 percent of the 12-to-17 age group do.
- There is substantial variation in mental health service utilization by type of insurance, ranging from 8.4 percent for Medicaid enrollees to 4.0 percent for the uninsured. The intensity of outpatient care (number of visits) differs similarly. Children on Medicaid are estimated to have more than 1,300 specialty visits per 1,000 children per year, compared with 462 specialty visits per 1,000 children with private insurance, 391 visits per 1,000 children with other types of insurance, and 366 visits per 1,000 children with no insurance.
- Mental health utilization varies across racial/ethnic groups. Latinos are the least likely of all groups to access specialty care (5.0%), even though they and Black children have the highest rates of need (10.5%) based on measures in the National Health Interview Survey (NHIS). Approximately 7

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percent of families with a child with need (based on NHIS measures) claimed financial barriers as the reason for not getting any mental health care.

- More than half of all outpatient specialty mental health services provided to children with private insurance are out-of-plan. The education sector likely provides a substantial portion of these services.
- Regarding inpatient mental health care, between 0.2 percent and 0.3 percent of children aged 1 to 17 use inpatient mental health services in community hospitals. This rate is much lower than the rate for adults (0.6%). Across all insurance types, adults and adolescents have greater inpatient days per 1,000 population than young children. Among the privately insured and the uninsured, adolescents have higher inpatient service use than adults. In contrast, among the publicly insured, inpatient days per 1,000 population are significantly higher for adults than for adolescents.
- Total treatment expenditures for children in 1998 are estimated to be approximately \$11.75 billion, or about \$173 per child. Adolescents (12 to 17) account for 59 percent of the total and also have the highest expenditures per child at \$291; children 6 to 11 account for 34 percent of the total at \$165 per child; children 1 to 5 for 7 percent at \$39 per child.
- Across service types, outpatient services account for 57 percent of the total (\$6.7 billion), inpatient for 33 percent (\$3.9 billion), psychotropic medications for 9 percent (\$1.1 billion), and other services for 1 percent (\$0.07 billion).
- Across children's insurance status, children with private insurance account for 47 percent (\$5.5 billion), Medicaid enrollees for 24 percent (\$2.8 billion), children with other public insurance for 3 percent (\$0.4 billion), and the uninsured for 5 percent (\$0.6 billion). We could not allocate State/local expenditures (21%, or \$2.5 billion) by child insurance status. The majority of these services were provided to children with private insurance coverage or Medicaid, but they were not paid by insurance.
- Total expenditures on psychotropic medications for children in 1998 are estimated to be \$1.1 billion. The largest proportion of expenditures was for stimulants, which accounted for slightly over 40 percent of the total. Antidepressant costs were the second largest category, accounting for 33 percent of the total.

Source: Costello, E. J., Gordon, P., Keeler, M. S., & Angold, A. (2001). Poverty, race/ethnicity, and psychiatric disorder: A study of rural children. *American Journal of Public Health, 91*(9), 1494-1498.

This study challenges commonly held perceptions about relationships between poverty, race, and the development of mental health problems in children. It is well known that poverty is itself a risk factor in the development of mental health problems, but the extent to which various risk factors associated with poverty contribute to mental illness is unclear. Findings from this study in four rural North Carolina counties suggest that the relationship between income and the prevalence of psychiatric disorders in children may be different for Caucasian children than it is for African-American children.

The study first of all came up with an overall prevalence rate of 19.4% in the sample of children from 9 through 17 years, using the Child and Adolescent Psychiatric Assessment as the psychiatric interview. As the authors point out, this is very consistent with prevalence rates found in other studies (it should be noted that this is the prevalence rate for any diagnosable disorder and not for children with serious emotional disturbances).

Within the sample of 920 youngsters and parents, of whom 541 were African-American and 379 were Caucasian, poverty was much more common in the African-American families than in the Caucasian families. When the relationship between income and presence of a disorder was studied separately for African-American and Caucasian families, it was determined that there was a relatively strong relationship in the Caucasian families (with a higher prevalence rate amongst children from low-income families), and only a mild relationship in the African-American families.

The authors also gathered data on the presence of risk factors in the African-American and Caucasian families (see the table on the next page for a summary of these findings) based on reports by the parents and children. The data show some very high rates of certain risk factors in this rural sample, including about two-thirds of African-American families and one-third of Caucasian families having at least one parent who left school before the 11th grade. Also, in about 13% of both groups of parents there were reports of physical or extreme verbal violence between the parents, and in about 18% of both groups, at least one parent had been charged with or convicted of a criminal offense. The research showed that Caucasian families were especially vulnerable to the highest level of risk. Poorer Caucasian children with five or more risk factors were significantly more likely to have a psychiatric disorder than equivalently disadvantaged African-American children (56% vs. 34%).

The five risk factors found to contribute significantly to the mental health problems of the children in this study were: 1) familial mental health problems; 2) multiple moves (possibly resulting in different school systems); 3) lack of parental warmth; 4) inadequate parental supervision; and 5) harsh punishment practices. Particularly important were the variables of having to move households many times, and a family history of mental illness.

This study not only supports current estimates of prevalence of psychiatric disorders in children, and shows them to be unacceptably high, but also sheds light on the relationship between income, risk factors, and presence of disorders. It is not clear why the relationship between income and presence of disorders is stronger in the Caucasian sample in this study than in the African-American sample but this is certainly an issue worth further study. The significance of risk and protective factors, both in contributing to the presence of disorders and to possible interventions, also merits further study.

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Table 1 Risk factors and prevalence in African-American (N = 541) and Caucasian (N = 379) children		
Risk factors	African-American	Caucasian
Child has spent time in a foster home	2.8**	0.4
One or other parent is a stepparent	12.5	17.1
One or both parents younger than 18 at child's birth	14.8*	9.9
Only one parental figure resident in home	33.4***	20.4
Four or more children in the household	8.4	7.8
Child or parent report lack of warmth between one or other parent and child	8.1	12.5*
One or other parent does not exert age-appropriate control on child's activities or friends	6.8*	3.3
Disciplinary style of one or other parent is harsh, restrictive, or physical	4.0	3.1
Physical or extreme verbal violence between parents	13.4	13.7
One or other parent has had treatment for or currently has a drug problem	9.7	9.5
One or other parent has been charged with or convicted of a criminal offense	18.7	18.1
Biological or other resident parent has had treatment for a mental health problem	18.8	36.9
Mother currently has five or more DSM-IV symptoms of depression	8.6	5.6
Parent or child reports that the school or neighborhood is dangerous	5.2	6.3
TANF, or unemployment benefit 1 st or 2 nd source of income	6.6***	0.9
One or other parent unemployed at time of interview	16.8***	9.8
One or other parent left school before the 11 th grade	66.4***	34.6
Family has moved four or more times in the past five years	12.8	9.7
One or more recent negative life events reported	40.0	34.9
Child ever exposed to sexual abuse	5.5	7.3
Notes: * $p < .05$; ** $p < .01$; *** $p < .001$		

Source: Hoagwood, H., Burns, B. J., Kiser, L., Ringeisen, H., & Schoenwald, S. K. (2001). Evidence-based practice in child and adolescent mental health services. *Psychiatric Services*, 52(9), 1179-89.

Schoenwald, S. K., & Hoagwood, K. (2001). Effectiveness, transportability, and dissemination of interventions: What matters when? *Psychiatric Services*, 52(9), 1190-96.

These two articles, part of a series in *Psychiatric Services*, address the important issues of evidence-based practice, and transportability of interventions. In the first article, Hoagwood et al. discuss and define the concept of “evidence-based practice,” emphasizing that there is no agreed upon set of criteria for determining that a particular intervention is “evidence-based.” They suggest that most interventions have been developed and tested under research conditions which differ in many ways from standard practice. In fact, they indicate that, “Much of what passes for research on evidence-based practice in the field of child and adolescent mental health might more aptly be described as clinical treatment efficacy research” (p. 1179).

Hoagwood et al. point out that the emphasis in the 1980s and 1990s on the development of community-based systems of care represented a major step forward in the children’s mental health field, a field that had been greatly neglected until that time. They further indicate, based primarily on the Fort Bragg study, that while systems of care have been demonstrated to improve access to services, to increase satisfaction with service, and to reduce use of restrictive forms of care, “clinical outcomes for children—for example, alleviation of symptoms, functioning, or reduction of impairments—were the same whether children were receiving coordinated services through systems of care or were receiving usual services” (p. 1182). A similar comment about systems of care is made in the second article by Schoenwald and Hoagwood.

Hoagwood et al. point out that one appropriate criticism of much of the research on empirically supported interventions is that they do not take into account the heterogeneity of the problems that children have who are seen at mental health clinics. However, they indicate that community-based interventions such as therapeutic foster care, intensive case management, and multi-systemic therapy address these concerns and have strong research support for their effectiveness.

Such demonstrations of effectiveness are unusual. For example, it is also reported that, “the evidence for the effectiveness of either clinical treatments or services within practice settings as opposed to research settings is still weak” (p. 1185). The authors note that there are great differences between the conditions under which efficacy trials are conducted, and those under which clinical services are typically provided, and this serves as an important barrier to the usefulness of efficacy research for clinical practice.

In the article on effectiveness, transportability, and dissemination of interventions, Schoenwald and Hoagwood indicate that most of the literature focuses on the naturalistic spread of innovations rather than on proactive dissemination efforts. As a result there is a weak evidence base on the question of how to embed effective treatments in service systems. The authors advocate for proactive dissemination of efficacious treatments as “a compelling next step” in efforts to increase the use of evidence-based practices.

Schoenwald and Hoagwood further call for “transportability” research before dissemination efforts are undertaken. “Transportability” research is defined as research that examines the movement of efficacious interventions to usual-care settings. They point out that most research studies include treatment manuals, special training for clinicians, and ongoing clinical support and monitoring of treatment implementation—conditions which exist in few community-based treatment settings. Unless transportability issues can be addressed, Schoenwald and Hoagwood say that the literature on the diffusion of innovation suggests that the risk either of outright rejection of a new treatment, or dilution of it, is high.

Continued...

In addition, the authors discuss new treatment development models that are designed to speed the progression to effective deployment in service systems. These models essentially involve development of new treatments either directly in community settings, or under circumstances that resemble usual practice as much as possible. This is an important departure from the traditional treatment development model in which interventions are developed under well-controlled research conditions, and where it is only after efficacy has been demonstrated that are efforts made to transport the program for use under regular conditions in community settings.

These two articles do an excellent job of conceptualizing and summarizing the issues involved in trying to increase the use of evidence-based practices in community settings. The articles illustrate the formidable challenges involved in doing this, and help demonstrate the reasons that progress has not been made more rapidly in this area. Perhaps most important, they offer suggestions for addressing the challenges in a more thoughtful and rapid manner than has been used before, through such mechanisms as conducting transportability and dissemination research, and developing interventions directly in the settings in which they are ultimately to be used. The articles also point to the continued need to clarify the concept of system of care. Until it is understood that the concept of system of care involves changes at the practice level as well as at the policy level, conclusions about the effectiveness of systems of care will continue to be drawn based on studies that have not demonstrated the effective application of system principles at the practice level.

Source: Walrath, C. M., Mandell, D. S., Liao, Q., Holden, E. W., DeCarolus, G., Santiago, R. L., & Leaf, P. J. (2001). Suicide attempts in the "Comprehensive Community Mental Health Services for Children and Their Families" program. *Journal of the American Academy of Child and Adolescent Psychiatry*, 40(10), 1197-1205.

Suicide is currently the third leading cause of death of adolescents; yet there is limited empirical information about this serious problem. This article presents data from the national evaluation of the Center for Mental Health Services' Comprehensive Community Mental Health Services for Children and Their Families program (CCMHSP) on suicide.

Study participants were youth between the approximate ages of 5-17.5 who were part of the national evaluation and who were served by a CMHS-funded system-of-care site in 1993-1994. Of the total of 4,677 young people, 21% had a history of at least one suicide attempt.

A review of presenting problems was used to categorize youth into one of four categories: 1) first-time attempters who presented as having recently attempted suicide, but reported no prior suicide attempts; 2) previous attempters, for whom suicide was not their presenting problem; 3) repeat attempters, for whom suicide was their presenting problem; and 4) no attempters, who presented for problems unrelated to suicidal ideation or attempts. The largest group was no attempters (79.1%), followed by previous attempters (11.2%), repeat attempters (6.0%), and recent attempters (3.7%).

Diagnoses were based upon DSM-IV criteria, and impairment was measured by the CAFAS. First-time and recent attempters were most likely to have a diagnosis of depression, whereas previous and no attempters were more likely to have been diagnosed with a conduct disorder. Although all groups were often referred to SOC sites from a mental health agency, some referral differences between groups were also found: previous attempters were likely to be referred by juvenile justice agencies and from child welfare; and recent attempters were often referred by their families.

An analysis of child and family risk factors indicated that repeat and previous attempters were more likely than the other two groups to have a history of family violence or substance abuse. Previous attempters were most likely to have a history of running away from home and to have been abused or to be abusers themselves; the second most likely group to have these risk factors consisted of repeat attempters. Repeat attempters were more likely than previous attempters to have a history of psychiatric hospitalization and family mental illness. According to the authors, "these findings suggest that previous attempters may be more likely to experience and perpetrate violence than first-time or repeat suicide attempters and agree with other findings that previous suicide attempters experience more trait anger than first-time or repeat suicide attempters" (p. 1203).

The findings also suggest that "among children and adolescents receiving mental health services, those who have attempted suicide are more distressed and impaired; this distress and impairment may manifest in different ways depending on the recency and frequency of suicide attempts. It appears that those who have made previous attempts are more likely to have experienced violence and be violent themselves, while those who have made first-time attempts are more likely to be depressed" (p. 1204). Clinicians should therefore be aware that the presence of depression or a recent suicide attempt may not be necessary for an adolescent to attempt suicide. Regardless of the presenting problem, adolescents with a history of conduct disorder and other violent behaviors may be in danger of suicide.

Source: Romano, E., Tremblay, R. E., Vitaro, F., Zoccolillo, M., & Pagani, L. (2001). Prevalence of psychiatric diagnoses and the role of perceived impairment: Findings from an adolescent community sample. *Journal of Child Psychology and Psychiatry*, 42(4), 451-461.

The authors note that while over the last 15 years numerous studies have been conducted on the prevalence of psychiatric disorders among children and adolescents, findings often reveal a very wide range of prevalence rates among these studies. For example, prevalence rates for a psychiatric diagnoses among females may range from 8% to 33%, and among males, from 6% to 22%. However, even though prevalence rates vary widely, findings from numerous studies support more generalized findings that females have higher rates of internalizing (depression and anxiety) disorders than males, and that males have higher rates of externalizing (attention and behavioral) disorders than females. Additionally, adolescents have been found to self-report higher rates of both internalizing and externalizing disorders when compared with parental reports of child and adolescent symptomatology.

The authors of this article purview a number of prevalence studies and offer the hypothesis that prevalence rates would decrease when impairment is included as a diagnostic factor. Previous studies have shown that the presence of impairment as a criterion for diagnosis specifically reduces the prevalence rates of internalizing disorders. The authors note that this finding may result from the possibility that internalizing disorders are not as impairing as are externalizing disorders, or that the nature of depression and anxiety are such that impairment is a difficult construct to identify and measure among such disorders.

The goals of the present study were: a) to determine prevalence of psychiatric disorders by gender within a six month time period by administering the DISC 2.25, which is based on DSM III-R criteria, to a community population of Canadian adolescents ($N=1201$) with an average age of 15; b) to compare adolescent self-reports with parental (mother) reports, and; c) to measure the impact of impairment criteria on prevalence estimates of adolescent psychiatric disorders.

When presence of a diagnosis (symptoms) and impairment were considered together, nearly 2 in 10 females and 1 in 10 males were found to have one or more disorders. Using this approach, the prevalence rates for anxiety related disorders decreased overall, but female adolescents still reported a "significantly higher prevalence of psychiatric disorders than males" (p. 456). Although mothers tended to underreport internalizing problems and to overreport externalizing problems, "both mothers and adolescents reported anxiety rather than depressive disorders to be more frequent during mid-adolescence" (p. 457).

Findings indicated that the rate of depressive disorders was not significantly reduced with the inclusion of impairment criteria, even though, overall, impairment criteria "significantly lowered the prevalence of one or more psychiatric disorders" (p. 457), and especially with regard to anxiety disorders. Yet "the effect of impairment on decreasing the prevalence of externalizing disorders, composed of CD-ODD and ADHD, was negligible" (p. 457).

Limitations to the study include the "modest reliability" of the French DISC 2.25 for adolescent reported behavioral disorders and parent reported depressive disorders. However, the finding that 1 in 5 adolescents had a recognizable psychiatric disorder is consistent with past research. Furthermore, the narrow age range (14-17) of the study participants permitted the authors to "examine [gender] differences and to reach more precise conclusions about psychiatric functioning during middle adolescence" (p. 458). Perhaps most importantly, this study found that the inclusion of impairment criteria significantly lowered the prevalence of internalizing *rather* than externalizing disorders. Thus, the authors point out that "especially in epidemiological studies, using symptom criteria alone may overestimate the prevalence of psychiatric diagnoses among nonreferred young people" (p. 458).

Source: Taub, J., Tighe, T. A., & Burchard, J. (2001). The effects of parent empowerment on adjustment for children receiving comprehensive mental health services. *Children's Services: Social Policy, Research, and Practice*, 4(3), 103-122.

This is the first known study to examine the relationship between parent empowerment and children's behavioral outcomes while receiving mental health services. The authors ask whether family empowerment increases over time while children are receiving mental health services. They found that parents of children who were receiving services within a system of care that promoted family participation reported higher levels of empowerment at the family level at the end of services than at the beginning, and that changes in family empowerment occurred at the same time as positive changes were taking place in behavioral indicators. While these findings are important in and of themselves, the study could not determine whether family empowerment influenced children's positive outcomes, whether positive outcomes influenced family empowerment, or whether they were both related to some other factor.

Data were gathered on a sample of children ($N = 131$) who were between 4 and 18 years of age at intake into comprehensive mental health services provided by the Access Vermont initiative, a CMHS system of care site. Children in the study were involved with more than one child-serving agency, were served with the aid of an individualized treatment plan, and remained in the care of the same parent or relative for the duration of the study. Over three-fourths of the participating children lived with families that were eligible for Medicaid, and a third lived in two-parent households. Almost all children were Caucasian (92%), with African-American, Hispanic, Native American, and children with unknown race/ethnicity each comprising 2% of the sample. Schools referred these children for services most often (21%), followed by mental health agencies (19%), parents (18%), and social services organizations (13%).

At intake, parents completed the Child Behavior Checklist (CBCL) to assess the child's behavioral and emotional functioning, and youth ages 11 and over ($n = 67$) completed the Youth Self-Report Form (YSR). At intake, 79% of the total sample of children were rated at or above the clinical range on the CBCL, and for those youth old enough to complete the YSR, 27% rated themselves as being in the top 5% for externalizing or internalizing disorders. Parents also completed the Family Empowerment Scale (FES). Data were gathered on the same measures at seven months post intake.

The FES measures empowerment in three domains: at the Family level, the Service level, and at the level of Community service or activism (i.e., writing letters, etc.) on behalf of children in need of mental health services. Findings from the FES indicated increased empowerment at the family level but not at the other two levels. The changes in the Family empowerment subscale were related to positive changes in the total CBCL score, and the externalizing score.

In conclusion, an important aspect of this study concerned receipt of services "in a service system embracing empowerment ideology" (p. 105). Empowerment principles promote collaborations between the family and treatment team, emphasize strengths and competencies, and promote the family's control of the treatment goals established for the child. (p. 106). Thus, a community site that long held and promoted the philosophy of empowerment and individualized care has begun to document that changes in empowerment at the family level and changes in adjustment do occur over time. However, the details of how these concepts interact with each other is the next research step. The authors conclude by presenting a number of strategies to further involve parents in their children's treatment process, and by offering recommendations for additional research on family empowerment.

Source: Walrath, C., dosReis, S., Miech, R., Liao, Q., Holden, E. W., De Carolis, G., Santiago, R., & Leaf, P. (2001). Referral source differences in functional impairment levels for children served in the Comprehensive Community Mental Health Services for Children and their Families Program, *Journal of Child and Family Studies*, 10(3), 385-397.

A primary goal of this study was to investigate the characteristics of children referred into SOC sites in an attempt to determine whether children referred from non-mental health sites present different challenges to SOC staff and administrators than do children referred from mental health agencies. Seventy-eight percent of all referrals to the sites came from non-mental health agencies. Results indicate that youth with moderate to high impairment are being identified and referred by non-mental health serving agencies into SOC, and that these children have impairment scores similar to those of children referred by mental health agencies.

Baseline data from the 1993-94 national evaluation of the Comprehensive Community Mental Health Services for Children and their Families Program were analyzed for children and adolescents served by one of 15 SOC grant sites ($N = 6,073$). Data on children who were referred from juvenile justice, school, social services, traditional out-patient mental health agencies, family, or from other sources were analyzed according to baseline child demographic characteristics and functional impairment levels as measured by the Child and Adolescent Functional Assessment Scale (CAFAS) within the first month of entry into a system of care site.

Table 1. Characteristics, referral source, and presenting problems ($N = 6,073$)	
Male	63%
Average Age	11.5
Race/ethnicity	
Caucasian	61%
African American	20%
Hispanic	11%
Other	5%
Referral sources	
Mental health	21%
Social Services	16%
Schools	16%
Family	16%
Juvenile Justice	11%
Other	12%
Presenting problems:	
Conduct Problems	54%
Adjustment Disorders	41%
Hyperactive Disorders	31%
Delinquency	29%
Depression related	22%

Table 1 shows characteristics, referral sources, and presenting problems reported by these children and their families. Over half (51%) of these children lived in a single-parent household, 20% lived with no family, and 46% came from families living below the poverty line.

When data were analyzed by referral agency, most children referred by juvenile justice presented with delinquency problems (71%), while conduct disorders were the main presenting problem for over half of all children referred by either school (55%), mental health (59%), social services, (54%), family (55%), and other (50%).

An analysis of the Mean Total CAFAS scores for children referred by these agencies found that children referred from social services agencies and by the family were significantly less impaired than were children referred from all other agencies studied. Scores for social services referrals and family referrals were 57.2 and 59.9, respectively. Although these children exhibited less impairment, the authors note that their impairment scores are "still indicative of intensive intervention" (p. 394).

Overall, these findings support previous studies on referral source into systems of care (see for example, *Data Trends* #3 and #4), and have

implications for policy and clinical practice. The authors write, "Despite their identification in a non-mental health setting, system of care providers can anticipate substantial service needs. Administrative decisions such as staffing plans and caseloads, and clinical decisions such as treatment plan goals, service planning, and accessing support services are impacted by the impairment levels of these children and their associated needs" (p. 395).

DATA TRENDS

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

Articles reviewed in *Data Trends* Summaries, by issue number:

Issues 1-16, summarized January – December, 1999

Issues 17-30, summarized January – December, 2000

Issues 31-48, summarized January – December, 2001

Each of these summaries can be accessed through Data Trends, at: <http://rtckids.fmhi.usf.edu>

Summarized during calendar year 1999

- Issue 1: Rosenblatt, A. (1998). Assessing the child and family outcomes of systems of care for youth with serious emotional disturbance (pp. 329-362). In Epstein, M. H., Kutash, K., & Duchnowski, A. (Eds). *Outcomes for children and youth with behavioral and emotional disorders and their families*. Austin, TX: PRO-ED.
- Issue 2: Zametkin, A. J., & Ernst, M. (1999). Problems in the management of Attention-Deficit-Hyperactivity Disorder. *The New England Journal of Medicine*, 340(1), 40-46.
- Issue 3: Walrath, C. M., Nickerson, K. J., Crowel, R. L., & Leaf, P. J. (1998). Serving children with serious emotional disturbance in a system of care: Do mental health and non-mental health agency referrals look the same? *Journal of Emotional and Behavioral Disorders*, 6(4), 205-213.
- Issue 4: Rosenblatt, J. A., Robertson, L., Bates, M., Wood, M., Furlong, M. J., & Sosna, T. (1998). Troubled or troubling? Characteristics of youth referred to a system of care without system-level referral constraints. *Journal of Emotional and Behavioral Disorders*, 6(1), 42-64.
- Issue 5: Rosenblatt, J. A., & Furlong, M. J. (1998). Outcomes in a system of care for youths with emotional and behavioral disorders: An examination of differential change across clinical profiles. *Journal of Child and Family Studies*, 7(2), 217-232.
- Issue 6: Jerrell, J. M. (1998). Utilization analysis for children's mental health services. *Journal of Behavioral Health Services & Research*, 25(1), 35-42.
- Issue 7: Burns, B. J. (1999). A call for a mental health services agenda for youth with serious emotional disturbance. *Mental Health Services Research*, 1(1), 5-20.
- Issue 8: Hodges, K., Doucette-Gates, A., & Liao, Q. (1999). The relationship between the child and adolescent functional assessment scale (CAFAS) and indicators of functioning. *Journal of Child and Family Studies*, 8(1), 109-122.
- Issue 9: Foster, E. M. (1998). Does the continuum of care improve the timing of follow-up services? *Journal of the American Academy of Child and Adolescent Psychiatry*, 37(8), 805-814.
- Issue 10: Halfon, Neal & Paul W. Newacheck. (1999). Prevalence and impact of parent-reported disabling mental health conditions among U.S. children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38(5), 600-609, and Commentary by E. Jane Costello, 610-613.

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

- Issue 11: Geller, J. L., Brown, J. M., Fisher, W. H., Grudzinskas, A. J., & Manning, T. D. (1998). A national survey of "consumer empowerment" at the state level. *Psychiatric Services*, 49(4), 498-503.
- Issue 12: Vander Stoep, A., Williams, M., Jones, R., Green, L., & Trupin, E. (1999). Families as full research partners: What's in it for us? *The Journal of Behavioral Health Services & Research*, 26(3), 329-344.
- Issue 13: Farmer, E., Stangle, D., Burns, B., Costello, E. J., & Angold, A. (1999). Use, persistence, and intensity: Patterns of care for children's mental health across one year. *Community Mental Health Journal*, 35(1), 31-46.
- Issue 14: Rosenheck, R. A. (1999). Principles and priority setting in mental health services and their implications for the least well off. *Psychiatric Services*, 50(5), 653-658.
- Issue 15: Wu, P., Hoven, C., Bird, H., Moore, R., Cohen, P., Alegria, M., Dulcan, M., Goodman, S., McCue Horwitz, S., Lichtman, J., Narrow, W., Rae, D., Reigier, D., & Roper, M. (1999). Depressive and disruptive disorders and mental health service utilization in children and adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38(9), 1081-1092.
- Issue 16: Walsh, M. E., Brabeck, M. M., & Howard, K. A. (1999). Interprofessional collaboration in children's services: Toward a theoretical framework. *Children's Services: Social Policy, Research, and Practice*, 2(4), 183-208.

Summarized during calendar year 2000

- Issue 17: Burns, B. J., Hoagwood, K., & Mrazek, P. J. (1999). Effective treatment for mental disorders in children and adolescents. *Clinical Child and Family Psychology Review* 2(4), 199-254.
- Issue 18: Henggeler, S. W., Rowland, M.D., Randall, J., Ward, D. M., Pickrel, S. G., Cunningham, P. B., Miller, S. L., Edwards, J., Zealberg, J. J., Hand, L. D., & Santos, A. B. (1999). Home-based multisystemic therapy as an alternative to the hospitalization of youths in psychiatric crisis: Clinical outcomes. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38(11), 1331-1339.
- Schoenwald, S. K., Ward, D. M., Henggeler, S. W., & Rowland, M. D. (2000). Multisystemic therapy versus hospitalization for crisis stabilization of youth: Placement outcomes 4 months postreferral. *Mental Health Services Research*, 2(1), 3-12.
- Issue 19: Hodges, K., Doucette-Gates, A., & Cheong-Seok, K. (2000). Predicting service utilization with the Child and Adolescent Functional Assessment Scale in a sample of youths with serious emotional disturbance served by Center for Mental Health Services-funded demonstrations. *The Journal of Behavioral Health Services & Research* 27(1), 47-59.
- Issue 20: The Robert Wood Johnson Foundation. (2000). *The importance of trust in medical care, papers and publications: David Mechanic, Ph.D. [Author series 1(12)]*. Investigator Awards in Health Policy Research: Author. Retrieved from: http://www.ihhpcpar.rutgers.edu/rwjf/author_series_detail.asp
- Issue 21: Knitzer, J. (1999 February). *Promoting resilience: Helping young children and parents affected by substance abuse, domestic violence, and depression in the context of welfare reform*. NY: National Center for Children in Poverty, the Joseph L. Mailman School of Public Health. Retrieved from: <http://cpmcnet.columbia.edu/dept/nccp/main10.html>

DATA TRENDS

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

- Issue 22: Weisz, John R. (2000 Spring). Lab-clinic differences and what we can do about them: 1. The clinic-based treatment development model. *Clinical Child Psychology Newsletter*, 15(1), 1-3, 10.
- Issue 23: Conduct Problems Prevention Research Group. (1999). Initial impact of the Fast Track prevention trial for conduct problems: I. The high-risk sample. *Journal of Consulting and Clinical Psychology*, 67(5), 631-647.
- Conduct Problems Prevention Research Group. (1999). Initial impact of the Fast Track prevention trial for conduct problems: II. Classroom Effects. *Journal of Consulting and Clinical Psychology*, 67(5), 648-657.
- Issue 24: Bickman, L., Lambert, E. W., Andrade, A. R., & Penaloza, R. V. (2000). The Fort Bragg continuum of care for children and adolescents: Mental health outcomes over 5 years. *Journal of Consulting and Clinical Psychology* 68(4), 710-716.
- Issue 25: Canino, G., Costello, J. E., & Angold, A. (1999). Assessing functional impairment and social adaptation for child mental health services research: A review of measures. *Mental Health Services Research* 1(2), pp. 93-108.
- Issue 26: Pires, S. A., Stroul, B., & Armstrong, M. L. (2000 Spring). *Health care reform tracking project: Tracking state health care reforms as they affect children and adolescents with behavioral health disorders and their families—1999 Impact Analysis*. Tampa: Research and Training Center for Children's Mental Health, Department of Child and Family Studies, Division of State and Local Support, Louis de la Parte Florida Mental Health Institute, University of South Florida.
- Issue 27: Koplan, J. P., & Fleming, D. W. Current and future public health challenges. (2000). *Journal of the American Medical Association* 284, 1696-1698.
- Issue 28: Stiffman, A., R., Hadley-Ives, E., Elze, D., Johnson, S., & Doré, P. (1999). Impact of environment on adolescent mental health and behavior: Structural equation modeling. *American Journal of Orthopsychiatry*, 69(1), 73-86.
- Issue 29: Rosenblatt, J., Rosenblatt, A., & Biggs, E. E. (2000). Criminal behavior and emotional disorder. Comparing youth served by the mental health and juvenile justice systems. *Journal of Behavioral Health Services & Research*, 27(2), 227-237.
- Issue 30: Lopez, S. R. & Guarnaccia, P. J. J. (2000). Cultural psychopathology: Uncovering the social world of mental illness. *Annual Review of Psychology*, 51, 571-598.

Summarized during calendar year 2001

- Issue 31: Holden, E. W., Friedman, R. M., & Santiago, R. M. (Eds.). (2001). The National Evaluation of the Comprehensive Community Mental Health Services for Children and Their Families Program [Special Issue]. *Journal of Emotional and Behavioral Disorders*, 9(1).
- Issue 32: Hodges, K., & Wotring, J. (2000). Client typology based on functioning across domains using the CAFAS: Implications for service planning. *The Journal of Behavioral Health Services and Research*, 27(3), 257-270.

DATA TRENDS

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

- Issue 33: Garland, A. F., Aarons, G. A., Saltzman, M. D., & Kruse, M. I. (2000). Correlates of adolescents' satisfaction with mental health services. *Mental Health Services Research, 2*(3), 127-139.
- Issue 34: Briggs-Gowan, M. J., Horwitz, S. M., Schwab-Stone, M. E., Leventhal, J. M., & Leaf, P. J. (2000). Mental health in pediatric settings: Distribution of disorders and factors related to service use. *Journal of the American Academy of Child & Adolescent Psychiatry, 39*(7), 841-849.
- Issue 35: Garland, A. A., Hough, R. L., McCabe, K. M., Yeh, M., Wood, P. A., & Aarons, G. A. (2001). Prevalence of psychiatric disorders in youths across five sectors of care. *Journal of the American Academy of Child and Adolescent Psychiatry, 40*, 4, 409-418.
- Aarons, Gregory A., Brown, Sandra A., Hough, Richard L., Garland, A. F., & Wood, P. A. (2001). Prevalence of adolescent substance use disorders across five sectors of care. *Journal of the American Academy of Child and Adolescent Psychiatry, 40*, 4, 419-426.
- Issue 36: Cuffe, S. P., Waller, J. L., Addy, C. L., McKeown, R. E., Jackson, K. L., Moloo, J., & Garrison, C. Z. (2001). A longitudinal study of adolescent mental health service use. *Journal of Behavioral Health Services & Research, 28*(1), 1-11.
- Issue 37: Mendel, Richard A. (2001). *Less cost, more safety: Guiding lights for reform in juvenile justice*. Washington, DC: American Youth Policy Forum. Retrieved from: <http://www.aypf.org/lesscost/>
- Issue 38: Walrath, C. M., Sharp, M. J., Zuber, M., & Leaf, P. (2001). Serving children with SED in urban systems of care: Referral agency differences in child characteristics in Baltimore and the Bronx. *Journal of Emotional and Behavioral Disorders, 9*(2), 94-105.
- Issue 39: dosReis, S., Zito, J. M., Safer, D.J., & Soeken, K. L. (2001). Mental health services for youths in foster care and disabled youths. *American Journal of Public Health, 91*(7), 1094-1099.
- Issue 40: Stiffman, A. R., Hadley-Ives, E., Dore, P. Polgar, M., Horvath, V., Striley, C., & Elze, D. (2000). Youths' access to mental health services: The role of providers' training, resource connectivity, and assessment of need. *Mental Health Services Research, 2*(3), 141-154.
- Issue 41: NIMH National Advisory Mental Health Council's Workgroup on Child and Adolescent Mental Health Intervention Development and Deployment. (2001). *Blueprint for Change: Research on Child and Adolescent Mental Health*. Washington, DC: National Institute of Mental Health. Retrieved from: <http://www.nimh.nih.gov/child/blueprin.pdf>
- Issue 42: Ringel, J. S., & Sturm, R. (2001). National estimates of mental health utilization and expenditures for children in 1998. *Journal of Behavioral Health Services and Research, 28*(3), 319-332.
- Issue 43: Costello, E. J., Gordon, P., Keeler, M. S., & Angold, A. (2001). Poverty, race/ethnicity, and psychiatric disorder: A study of rural children. *American Journal of Public Health, 91*(9), 1494-1498.
- Issue 44: Hoagwood, H., Burns, B. J., Kiser, L., Ringeisen, H., & Schoenwald, S. K. (2001). Evidence-based practice in child and adolescent mental health services. *Psychiatric Services, 52*(9), 1179-89.
- Schoenwald, S. K., & Hoagwood, K. (2001). Effectiveness, transportability, and dissemination of interventions: What matters when? *Psychiatric Services, 52*(9), 1190-96.

DATA TRENDS

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

- Issue 45: Walrath, C. M., Mandell, D. S., Liao, Q., Holden, E. W., DeCarolus, G., Santiago, R. L., & Leaf, P. J. (2001). Suicide attempts in the "Comprehensive Community Mental Health Services for Children and Their Families" program. *Journal of the American Academy of Child and Adolescent Psychiatry*, 40(10), 1197-1205.
- Issue 46: Romano, E., Tremblay, R. E., Vitaro, F., Zoccolillo, M., & Pagani, L. (2001). Prevalence of psychiatric diagnoses and the role of perceived impairment: Findings from an adolescent community sample. *Journal of Child Psychology and Psychiatry*, 42(4), 451-461.
- Issue 47: Taub, J., Tighe, T. A., & Burchard, J. (2001). The effects of parent empowerment on adjustment for children receiving comprehensive mental health services. *Children's Services: Social Policy, Research, and Practice*, 4(3), 103-122.
- Issue 48: Walrath, C., dosReis, S., Miech, R., Liao, Q., Holden, E. W., De Carolus, G., Santiago, R., & Leaf, P. (2001). Referral source differences in functional impairment levels for children served in the Comprehensive Community Mental Health Services for Children and their Families Program. *Journal of Child and Family Studies*, 10(3), 385-397.

DATA TRENDS

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