Data Trends

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

Robert M. Friedman, Ph.D.
Krista Kutash, Ph.D.
Catherine C. Newman, M.A.

Research and Training Center
for Children's Mental Health
Louis de la Parte Florida Mental Health Institute
University of South Florida, Tampa

**University of
South Florida**

USF

Data Trends

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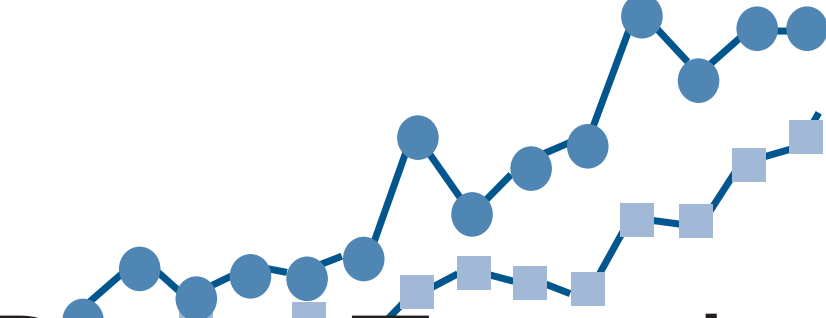## in the Children's Mental Health Field

issue numbers 49-70
december, 2002

Robert M. Friedman, Ph.D.
Krista Kutash, Ph.D.
Catherine C. Newman, M.A.

Research and Training Center
for Children's Mental Health
Louis de la Parte Florida Mental Health Institute
University of South Florida, Tampa

DATA TRENDS

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

---

NIDRR
National Institute on Disability and Rehabilitation Research

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Mental Health Services
www.samhsa.gov

University of South Florida
USF

Source: Greene, R. W., & Abion, J. S. (2001). What does the MTA study tell us about effective psychosocial treatment for ADHD? *Journal of Clinical Child Psychology, 30,* 114-121. With commentaries by: Abikoff, H., pp. 122-125; Hoza, pp. 126-130; Wells, K. C., pp. 131-135; Whalen, C. K., pp. 1326-140; & Harwood, T. M., & Beutler, L. E., pp. 141-143.

Heriot, S. A., Evans, I. M., & Foster, T. M. (2001). An interactional approach to intervention research with children diagnosed with ADHD. *Journal of Child and Family Studies, 10,* 287-300.

These articles discuss psychosocial treatments for attention deficit hyperactivity disorder (ADHD). The article by Greene and Abion, and the accompanying commentaries, focus specifically on the Multimodal Treatment Study (MTA) of ADHD, sponsored by the National Institute of Mental Health. While the articles and commentaries are of special interest to those who are concerned about treatment of ADHD, they also have important implications for the children's mental health field about individualized treatments, evidence-based interventions, and evaluation of effectiveness of interventions.

The articles build on the general finding from the MTA study that the effects of intensive psychosocial interventions, whether in combination with medication or not, were disappointing. This is not to say that there were no positive effects of the psychosocial interventions, but rather that the overall effects were not as large as advocates for psychosocial interventions had hoped. Greene and Abion offer the view that one important reason for this finding was that the interventions were not adequately individualized. They point out that given the heterogeneity of ADHD, "the degree to which treatment ingredients are matched to the assessed needs of individual children, parents, and teachers is as crucial to effective treatment as the quality of the actual treatment ingredients themselves. Such a perspective is consistent with goodness-of-fit theory and a transactional model of development" (p. 115).

Commentators Harwood and Beutler also emphasize this point, indicating that, "rather than being bound by a given model of change, treatment decisions are best based on a practical and pragmatic consideration of what works, for whom, for what problems and symptoms, over what period of time, and when applied by whom (p. 142). They cite results from their own research with adults that emphasize the value of matching qualities of treatment with characteristics of those being served, and report that they were able to account for 40% to 99% of the variance in some outcomes by combining patient, treatment, and matching variables. However, while not disagreeing about the need to match interventions with the characteristics of clients, two commentators (Hoza and Wells) take the position that within the psychosocial intervention used in MTA, there was considerable opportunity for individualization.

This discussion is very consistent with the emphasis in systems of care (SOC) on the need for and benefits of individualized treatment. It is also consistent with the focus in SOC research on defining what is meant by individualized care, and on developing measures to determine the degree to which the principles of individualized care have been implemented. It is noteworthy that within the debate that takes place in these articles there is no reference to individualized care approaches as defined within SOCs, and the level of individualization that is being referred to is not nearly as substantial as within SOCs. Further, disagreements about the definition of individualized care and its measurement lead to disagreements over the interpretation of results.

Two other points stand out from these articles. Several of the commentators mention the importance of client "choice," again consistent with the principles of a system of care. For example, Abikoff and Hoza suggest that the effectiveness of a medication is less likely to be dependent on client choice, but that, "in stark contrast, the effectiveness of behavioral interventions is highly dependent on parent (and teacher) coopera-

tion, enthusiasm, motivation, and sustained effort" (p. 128). This point is reinforced in a recent review by Kern et al. (2001) on choice as part of an intervention for children with special challenges. Kern shows consistently that when given choices as part of an intervention, children show a decrease in inappropriate behavior and/or an increase in appropriate behavior. The process of giving choice to parents and children, while encouraged within systems of care, may merit even further consideration and discussion.

In their article, Heriot, Evans, and Foster also emphasize the importance of "unspecified" factors that account for great variability in intervention outcomes, and indicate the need to match interventions with the characteristics of children and families. In their own research with young children with ADHD and their families, Heriot et al. find great variability in responses to particular interventions. They support the use of "interactional" models that examine a large number of variables. They further indicate that measuring and targeting parental acceptance and understanding of the child and his/her disorder may be an important first step or necessary prerequisite to more harmonious parent-child interactions. They note that as parents become more knowledgeable about ADHD, negative judgments about their child modify; parents may then become more optimistic and positive, leading to more responsiveness from their child. This model indicates that in addition to the standard use of medication and behavioral interventions, parent education programs about ADHD may be an important component of effective intervention for many families.

Overall, this series of articles and commentaries have interesting and important parallels in the SOC literature. They speak to the importance of using individualized interventions in which the needs of the child and family are matched with the services that are provided, of defining and measuring individualization clearly, and of the disagreements in interpreting results that can come from lack of clarity. They also speak of the potentially important role of choice and parental education in interventions.

Reference: Kern, L., Mantegna, M. E., Vorndran, C. M., Bailin, C. M., & Hilt, A. (2001). Choice of task sequence to reduce problem behaviors. *Journal of Positive Behavioral Interventions, 3,* 3-10.

Source: Goldman, H. H., Ganju, V., Drake, R. E., Gorman, P., Hogan, M., Hyde, P. S., & Morgan, O. (2001). Policy implications for implementing evidence-based practices. *Psychiatric Services, 52*(12), 1591-1597.

Corrigan, P. W., Steiner, L., McCracken, S. G., Blaser, B., & Barr, M. (2001). Strategies for disseminating evidence-based practices to staff who treat people with serious mental illness. *Psychiatric Services, 52*(12), 1598-1606

Rosenheck, R. A. (2001). Organizational process: A missing link between research and practice. *Psychiatric Services, 52*(12), 1607-1612.

Carpinello, S. E., Rosenberg, L., Stone, J., Schwager, M., & Felton, C. J. (2002). New York State's campaign to implement evidence-based practices for people with serious mental disorders. *Psychiatric Services, 53*(2), 153-155.

The authors of these articles agree that the successful implementation of evidence-based practices in the community setting is a complex process that must address practical, systemic, and organizational issues. While this awareness runs throughout all of the articles, each piece focuses on a specific set of barriers and challenges to implementation. Taken together, the articles make a helpful "primer" on the state of knowledge about dissemination. The first two articles discuss policy and dissemination issues that are relatively well known, and the third article offers a model of organizational change that is especially instructive. The final, brief article introduces the New York State campaign to implement evidence-based practices.

Eight courses of action for encouraging the use of effective mental health services:

These actions "constitute necessary first steps toward overcoming the gaps in what is known and removing the barriers that keep people from seeking and obtaining mental health treatment."

· Continue to build the science base
· Overcome stigma
· Improve public awareness of effective treatments
· Ensure the supply of mental health services and providers
· Ensure delivery of state-of-the-art treatments
· Tailor treatment to age, gender, race, and culture
· Facilitate entry into treatment
· Reduce financial barriers to treatment

From chapter eight of the Surgeon General's Report on Mental Health, 1999. Retrieved from: http://www.surgeongeneral.gov/library/mentalhealth/home.html

---

In the first article, Goldman et al. review lessons learned from a year of publications in this journal on evidence-based practice in mental health. Framing their discussion around the Surgeon General's eight courses of action for encouraging the use of effective mental health services (see sidebar), the authors stress that administrative practices and policy itself can impede or facilitate the use of evidence-based practices. The authors link the concepts of quality improvement, accountability through performance measurement, and evidence-based practices by making the point that, "Implementing evidence-based practices is a quality-improvement process that provides accountability through the monitoring of the fidelity of practices to models that have been demonstrated by research to be effective" (p. 1592).

Goldman et al. also suggest that fidelity to a model is a means to an end and not an end in and of itself, and that fidelity to a model should not be "regulated in a way that prevents client choice, clinical judgement, or continuing change as new evidence emerges" (p. 1592).

The authors also note, as do those of the second article, that no empirical base exists for the dissemination and implementation of evidence-based practices. That is, we know that a program "works" at the clinical level because we have studied it; but we have not yet studied the implementation process itself. However, research on what happens to a practice once it gets to the community level is beginning to accumulate, and that research is the focus of the second article.

According to Corrigan et al., the two reasons why practitioners and service providers fail to implement a program with fidelity (i.e., the way it was designed to be implemented) are that they lack the knowledge and skills

Continued...

---

necessary to do so, and that the organizational structure or culture under which they work makes it difficult to implement new practices. For example, an organizational structure may leave no time in a service provider's schedule to attend a training session for a new program.

The authors list three strategies that can help overcome these barriers. The first strategy involves the way a program is packaged, and addresses issues of concern to the potential provider of the program, e.g., the accessibility of the instruction manual, or how much time it will take to learn the program and to implement it. The second strategy stresses the need for a "broad range of knowledge to be able to assimilate evidence-based practices" (p. 1599), which includes training in interpersonal support, instrumental support, goal setting, and general skills training (p. 1599). The third strategy takes a closer look at the leadership in an organization; research has shown that effective leaders encourage the intellectual development of their staff, promote inspiration, encourage feedback and "reinforcement strategies that help team members maintain effective programs" (p. 1599).

In the third article, Rosenheck examines the structure and culture of large organizations. He uses the model of the Veteran's Administration to show how an organization can, within a relatively short period of time, successfully adopt and implement new programs. Organizations are often guided by multiple competing goals, are often users of new, uncertain technologies and instruments and, in the field of health care, experience rapid turnover of providers. Furthermore, large organizational structures frequently create an echelon of managers who have little daily contact with their staff. "Leaders typically do not have enough time to devote their full attention to even a fraction of the issues for which they are responsible. Managerial attention has been described as the most limited resource in large organizations" (p. 1608).

To counter these barriers, Rosenheck suggests that leaders create decision making coalitions, and that they identify new initiatives within the context of the legitimate goals of the organization (such as cost savings). Organizations must also be able to qualitatively monitor fidelity to the practice and must develop "self-sustaining subcultures or communities of practice that both perpetuate and modify program procedures and values" (p. 1610), so that "with less and less shaping from central staff, program guidance comes increasingly from the teams themselves" (p. 1611).

Finally, Carpinello et al. report on the New York State campaign to deliver evidence-based practices to those in need of mental health services. This article complements the first three by revisiting emerging themes in the implementation of such practices, and by drawing attention to the role of the consumer in the implementation of evidence-based practices. They state, "a high quality system must be based on research evidence and must also be consumer-centric, representing the shift in goals from community-based systems of care that treat and shelter or support consumers to community-integrated systems that deliver high-quality services to customers who want to design and manage their own recovery" (p. 153). They also suggest that state mental health authorities will need a multi-pronged and longitudinal strategy to promote services that have proven effectiveness.

In conclusion, as systems slowly change to accommodate the new demand for quality and accountability, and as evidence-based programs make their way into the community, Carpinello et al.'s focus on a particular region of the country reminds us that some practices may need to be "fine tuned" to their immediate environment. Practitioners and providers must be excited about the program itself, and be willing to work out all the "kinks" that may arise as practices, while remaining faithful to their design, develop within their respective communities. With this expectation in mind, and with regard to the barriers and challenges identified in these articles, Goldman et al.'s description of the policy challenge is especially salient. They state, "policies create incentives and disincentives that shape the mental health service system. A major challenge is to identify policy interventions that facilitate implementation of evidence-based practices but also minimize barriers to implementation" (p. 1592).

Source: Friedman, R. M. (2002, January). Child and Adolescent Mental Health: Recommendations for Improvement by State Mental Health Commissions. Unpublished Manuscript.

Background

Between June, 1997, and October, 2001, commissions in 13 states issued reports on the status of mental health in their state, and needed improvements. The National Association of State Mental Health Program Directors and Louis de la Parte Florida Mental Health Institute convened a meeting in St. Petersburg, Fl., on January 28-29, 2002, to review the findings from these commission reports for the purpose of identifying their primary policy implications both at the federal and state level of government. A list of these reports is included with this manuscript.

This brief manuscript specifically focuses on the findings and recommendations with regard to children and adolescents, and their families. Of the 13 states, three issued separate reports on children (California, Florida, and Kentucky) while an additional two had subcommittees that focused on children (Montana and Tennessee). In California the study of child and adolescent mental health was actually a separate undertaking of a statewide commission, rather than being one component of an overall review of the mental health system. In contrast to the very heavy emphasis on children in these five states, three states devoted almost their entire report to adults (Arizona, Indiana, and Virginia). It may be indicative of a growing interest in child and adolescent mental health that all five states that had a strong focus on children completed their reports in the past two years, while the three states with minimal focus on children completed their reports in 1999. The remaining five states included sections in their reports on children but neither published a separate report nor had a separate children's committee (Connecticut, Nevada, Ohio, West Virginia, and Wisconsin).

The purpose of this manuscript is to identify and summarize the themes that appeared most consistently in the reports. This was done through a review of the content of each of the reports.

Major Themes

The most important central conclusion drawn from the reports is a serious dissatisfaction in most states with the adequacy of efforts to address the mental health needs of children and adolescents, and their families. This conclusion comes through very strongly despite the fact that virtually every state identified areas of progress, and particular efforts of which it was especially proud. One example of the dissatisfaction is Ohio, where the Commission indicated that, "Access to mental health services for children with a mental, emotional or behavioral disorder is substandard. Services are not provided early enough, where children and youth need them, or in sufficient supply. Worse, only a fraction of children and youth with a mental illness and severe impairment get the services they need." In California, this dissatisfaction is expressed even more strongly. "The present system fails more children than it serves. It is broken to the point of needing replacement. A new categorical program—an infusion of more money alone—will not cure this system" (California, October, 2001, p. 75).

In response to this, Commission reports consistently called for:

- A focus on the values and principles of systems of care, including collaboration across service sectors, the support of a strong role for families, and the provision of individualized, comprehensive, and culturally competent services. There was a clear recognition that progress would be limited unless the mental health agency had effective partnerships with other child-serving sectors;

Continued...

- An increased emphasis on prevention, based on models of risk and protective factors, and a better balance between prevention/early intervention, and services for children with serious emotional disorders and their families;

- A re-examination of funding policies, with an intent to create more flexibility in funding, to reduce categorical funding, and to expand the coverage offered under Medicaid. These calls for examining funding policies were frequently accompanied by calls for increased funding overall, in addition;

- Greater attention to planning, accountability, and responsibility. There was a pervasive concern that while multiple public and private entities had important roles to play in meeting the mental health needs of children and families, there was an absence of overall comprehensive planning, accountability was as fragmented as the rest of the system, and as a consequence there was a sense that nobody was responsible at the system level;

- A review of governmental structures, with an intent of creating a strong coordinated voice for the needs of children and families specifically, for mental health overall, or for specific emphases, such as prevention. The Florida report, for example, called for the creation of a statewide "Coordinating Council for Mental Health and Substance Abuse," the California report recommended the appointment of a state "Secretary of Children's Services," as well as the establishment of county-level "Child and Family Services Boards," and Connecticut called for a prevention budget that cut across departmental lines;

- The creation of closer partnerships between the schools and mental health was a very strong emphasis in reports, and four states specifically identified a need for a greater focus on services for adolescents making a transition into adulthood;

- The improvement of quality of services through increased attention to professional training (in partnership with universities), to overall issues of recruitment and retention of professional staff, to greater use of evidence-based practices, and to the establishment of professional standards for organizations and individuals;

- Greater public education efforts both to reduce stigma and to increase support for child and adolescent mental health services.

Summary

Although the Commission reports overall reflect a strong and consistent concern about the adequacy of the system in addressing the mental health needs of children and adolescents, there is clearly variability in the level of seriousness with which this problem is perceived, and the nature of the recommendations. States like Kentucky and Montana, for example, focus primarily on increasing access to services, strengthening the overall range of services that are available, and modifying fiscal policies, while other states like California and Florida call for more significant reform.

It is interesting to note, in this regard, that the findings and recommendations from Commissions are partly a reflection of the composition of the Commission. In California, for example, where the call is for very significant change in state policy and in the structure of state government, the report was done by the Little Hoover Commission, an independent oversight group not made up of individuals with special interest or expertise in mental health. In addition, the Little Hoover Commission had also completed, in recent years, studies of several other child-serving systems, and offered its child and adolescent mental health recommendations in a context of having concluded that there were serious deficiencies in the other systems as well.

Although the Commission reports differ in their particular emphases, there is great consistency in the values, principles, and beliefs that are offered. The beliefs, for example, in the necessity of inter-agency collaboration, the importance of individualized, comprehensive, and culturally competent care, the role of funding in supporting such care, and the need for a strong family role at all levels of the system come through very strongly in the reports, overall. The challenge that pervades the reports is how to translate these values and beliefs into a responsible, accountable system structure at all levels of government in order to increase access to services, and effectiveness of services.

State Commissions and Reports

Arizona, November, 1999 – Task Force on Improving the Arizona Mental Health System: Executive Summary of Final Report.

California, October, 2001 – Young Hearts & Minds: Making a Commitment to Children's Mental Health, Little Hoover Commission.

Connecticut, July, 2000 – The Governor's Blue Ribbon Commission on Mental Health.

Florida, January, 2001 – The Florida Commission on Mental Health and Substance Abuse (also, Children's Workgroup Report).

Indiana, November, 1999 – Final Report of the Indiana Commission on Mental Health, Indiana Legislative Services Agency.

Kentucky, June, 2001 – The Kentucky Commission on Services & Supports for Individuals with Mental Illness, Alcohol and Other Drug Abuse Disorders, and Dual Diagnoses: A Report (also, Children's Work Group Report).

Montana, November, 2000 – Improving Public Mental Health Services in Montana: A Report on the Accomplishments of the mental Health Oversight Advisory Council (MHOAC).

Nevada, March, 2001 – Letter to the Honorable Kenny Guinn, Governor of the State of Nevada, from Frances Brown, Chair, Mental Health and Developmental Services Commission.

Ohio, January, 2001 – Changing Lives: Ohio's Action Agenda for Mental Health, Report of Ohio's Mental Health Commission.

Tennessee, January, 2000 – Title 33 Revision Commission – State of Tennessee Department of Mental Health & Mental Retardation.

Virginia, December, 1999 – Anderson Commission on Community Services and In-patient Care: Final Report to Governor James S. Gilmore, III.

West Virginia, December, 1999 – The Commission on Mental Hygiene Reform: Final Report.

Wisconsin, April, 1997 – The Blue Ribbon Commission on Mental Health: Final Report.

Source: Duggal, S., Carlson, E. A., Sroufe, L. A., & Egeland, B. (2001). Depressive symptomatology in childhood and adolescence. *Development and Psychopathology, 13*, 143-164.

This longitudinal project contributes to previous research suggesting that the origins of childhood-onset depression may differ from adolescent-onset depression–even though symptomatology may appear similar. According to the authors, very little longitudinal data exist on early life experiences between caregiver and child and their relation to depression in youth. This study contributes significantly to that research, while also enriching our understanding of the relationship between early family environment and depression among children and adolescents.

The sample consisted of 168 children who came from families with low socioeconomic status. Children were between the ages of 0-17, and mothers ranged in age from 15-34 (*M* = 21). Well over half (63%) of the mothers were single, and 35% had not completed high school at the time of their child's birth. Most families were Caucasian (84%), followed by African American (11%), and American Indian or Latino (5%).

In this study, the authors utilize a variety of instruments, checklists, and diagnostic interviews involving mothers, teachers, and the child. The study also provides a "major methodological advance" (p. 146) by using an observational approach to determine the degree of emotional support provided by the mother during the first 3.5 years of the child's life. Adolescent interactions with mothers were also observed with a similar goal in mind.

Findings indicate that almost one-third (32%) of youth were found to have depression in childhood, adolescence, or both. Of these youth, 24 showed depressive symptomatology in childhood only (13 males, 11 females), 22 were found to be depressed during adolescence only (10 males, 12 females), and 8 youth (3 males and 5 females) were depressed during both childhood and adolescence. Gender ratios for depression supported previous findings, in which males were less likely to be depressed during adolescence than females. For example, depression was found in 18% of male children and in 21% of female children, but by adolescence, those figures had changed to 14% and 22%, respectively. Furthermore, 16% of females developed depression in adolescence, compared to 11% of males. Finally, 31% of females depressed in childhood showed depression in adolescence as well, while this was true for only 19% of the males.

Results also suggest that, among children, depression significantly correlated with general family environment (i.e., maternal depression, lack of supportive early care, lack of parenting support, abuse, and early maternal stress, p. 154). However, adolescent-onset depression only correlated with maternal depression and lack of supportive early care. Among these adolescents, it should be noted that maternal depression was highly correlated with depression in adolescent females, while early care seemed particularly predictive of depression among adolescent males.

Overall, 19% of the youth studied showed significant levels of depression during childhood, and 18% began to show symptoms in adolescence. The authors suggest that these figures must be interpreted in light of the high risk status of the sample. They indicate that, "the instability in family circumstances and considerable number of stressors experienced by this sample are likely to have affected the overall emotional climate in the family, increasing the likelihood of depressive disorder in childhood and resulting in a rate of childhood depression toward the upper end of the range generally observed in epidemiological studies." (p. 157).

To conclude, the authors indicate that there may be multiple pathways to depression that involve a wide variety of antecedent factors. They note that interventions aimed at deficiencies in family supportiveness in the early years, interventions targeting clear cases of physical or sexual abuse, and interventions to address maternal depression are all likely to benefit children as well as mothers.

Source: Bruner, C., Greenberg, M., Guy, C., Little, Weiss, H., & Schorr, L. (Eds.) (2001). *Funding What Works: Exploring the Role of Research on Effective Programs and Practices in Government Decision-Making.* [Monograph]. National Center for Service Integration Clearinghouse and the Center for Schools and Communities. Des Moines, IA.

This monograph presents the remarks of several speakers at a symposium in Pennsylvania on May 18th, 2001, on "Funding What Works." It includes presentations by several distinguished leaders in the children's services field. Although the primary focus is not on children's mental health, the report makes an important contribution to the discussion on the use of research and evidence to improve services, systems, and policy.

The opening chapter is by Lisbeth Schorr, author and director of the Harvard University Project on Effective Interventions. While she supports the use of evidence to determine the funding of programs and services, she advocates for an inclusive approach to what counts as credible evidence. Schorr indicates that often times randomized clinical trials are just not appropriate. She makes the point that, "Promising social programs often are complex efforts with multiple components that require constant mid-course correction, the active involvement of committed human beings, and flexible adaptation to local needs and strengths, to lessons learned, and to changing circumstances. It is the very nature of the most promising programs that makes them almost impossible to evaluate the way we evaluate drugs" (p. 2).

Mark Greenberg, Director of the Prevention Research Center at Penn State University, also summarizes the characteristics or attributes of effective programs. He indicates that programs that are "more comprehensive, more flexible, and more responsive to the needs of participants are more likely to be effective" (p. 7). He also reports that effective programs view children in the context of broader ecologies, such as their families, schools, neighborhoods, churches, and communities, and are generally operated by people with a commitment and intensity to their work. Greenberg advocates for the use of randomized clinical trials when appropriate, and quasi-experimental designs if at all possible when randomized clinical trials cannot be conducted. He also calls for research on effective implementation, and points out that when a community selects an empirically validated program for funding, this is only the start of a process of achieving positive results.

Michael Little, a Senior Research Fellow at the Chapin Hall Center for Children and Bristol University in Great Britain, recommends that developing effective services should not start at the program level, but rather by looking at children themselves, and determining what is known about children living in our communities. Program development should come after learning about the children, and then thinking about the desired outcomes. The next step is to try to establish an appropriate organizational structure to deliver those services. Little points out that while this may seem simple and obvious, when he looks at the United States, he often sees "people starting with an organizational structure into which services are forced and adapted to the financing that is available," (p. 20), rather than being based on the needs of the children to be served.

In the next chapter, Heather Weiss, Founder and Director of the Harvard Family Research Project, argues strongly for a continuous quality improvement approach. She maintains that, "the earmark of a quality program or organization is that it has the capacity to get and use information for continuous improvement and accountability. No program, no matter what it does, is a good program unless it is getting and using data of a variety of sorts, from a variety of places, and in an ongoing way, to see if there are ways it can do better" (p. 23). This emphasis leads Weiss to call for building an information infrastructure to provide the necessary support and assistance to establish learning organizations.

Cynthia Guy, a Senior Research Associate at the Annie E. Casey Foundation, discusses the process of knowledge development and application that was utilized within a large teen pregnancy prevention project of the Casey Foundation. She points out that while the Casey Foundation is committed to making the maximum use of rigorous research and evaluation, often times the strongest research designs just cannot be used and in such instances it is important to use other approaches because "we cannot allow the limits of current evaluation technology to limit our aspirations to develop programs that work" (p. 35).

Overall, this is a brief and easy to read monograph that makes an important contribution to the discussion on how best to use evidence and research to improve services, policy, and outcomes. This report is available from the National Center for Service Integration, c/o Child and Family Policy Center, 218-6th Avenue, Suite 1021, Des Moines, IA 50309; phone: 515 280-9027; website: http://www.cfpciowa.org

Source: Dierker, L., Nargiso, J., Wiseman, R., & Hoff, D. (2001). Factors predicting attrition within a community initiated system of care. *Journal of Child and Family Studies, 10*(3), 367-383.

This article reports on one of few studies that examines patterns of attrition as well as child, family, and system characteristics in order to better understand why some youth and families remain in a system of care (SOC) while others do not (p. 377). The study found five significant predictors of attrition for children and adolescents: 1) depressed/isolated symptomatology at time of referral, 2) substance abuse, 3) general risk for psychiatric problems, 4) the number of presenting problems at the time of referral, and 5) urgency status at intake (see Table 1). The implications of this study are especially salient for policy and services research aimed at reducing premature termination of services among youth and their families in a system of care.

The authors collected data from closed case records of youth referred to a system of care (N = 117) between 1992-1999, and created three mutually exclusive groups by which data were then analyzed. The three groups included youth and their families who either: 1) agreed to be referred to an SOC, but later *refused* services offered by the SOC; 2) *dropped out* of treatment prematurely before or after having worked with a service review team, or; 3) *completed* at least some treatment goals, and/or received some services. Only one-third of youth and their families (*n* = 39) comprised the third group.

The majority of youth in this study were male (71%), and Caucasian (80%). No significant differences were found between groups (i.e., refusers, dropouts, and completers) with regard to gender, age, or ethnicity. Most referrals were made by the state's Department of Children and Families, followed by other CASSP member programs, and schools. Although insurance status (private vs. Medicaid) was used as a proxy for socioeconomic status, findings did not reveal a relationship between income and dropout rates; nor did insurance status predict attrition.

The authors suggest that youth who dropped out of or refused treatment represented very complex cases of risk and comorbidity. For example, 88% of dropouts and 80% of refusers were referred to the SOC for more than one reason (i.e., depressed, suicidal, substance abuse, etc.), while this was the case with only 60% of completers. Depressed and isolated symptomatology as well as substance abuse were found to be much more prevalent among refusers and dropouts than completers. These findings suggest that "The greater likelihood of youth with [numerous] conditions dropping out after the creation of an individualized service plan may in fact reflect the difficulty of maintaining children and adolescents with comorbid diagnoses in treatment" (p. 379).

Intake status was also predictive of attrition. At referral, youth were classified into one of three groups: a) urgent, needing to be seen within two weeks; b) semi-urgent, needing to be seen within one month, and c) non-urgent, or chronic, needing to be seen when possible. Four-fifths of both dropouts and completers were placed on urgent status. Please see the side bar for a discussion of intake status and its implications for retention and attrition within a system of care.

It should be noted that the SOC in this study is considered "one of the most well established" (p. 370), with a full time case manager and family advocate, 24-hour mobile crisis service and active involvement from 36 community agencies from across the county. Accordingly, the authors suggest that these rates of attrition are "particularly noteworthy," since youth were offered a "comprehensive and individualized array of services" (p. 378).

While this study addresses a very important topic, it also reveals the need for data collection geared toward understanding attrition and retention. Because data for this study were taken from archival records,

Continued...

children and families were not available to provide any insight into why attrition occurred from their perspective. It is important that data collection efforts provide direct feedback from children and their parents about their decisions to refuse or drop out of treatment; without this information we will lack crucial insight into the mental health needs of children and their families.

Overall, the authors suggest that "future, more careful analysis of timing of drop-out will require much larger samples and some matching in terms of both referral status and recommended services" (p. 380). They also note that data gleaned for this study were not always collected with standardized instruments, and thus speak to "the urgent need for the development of such instruments that not only serve formal research efforts, but also feed clear and useful information back into the system in a meaningful and timely way" (p. 380).

Source: Yeh, M., McCabe, K., Hurlburt, M., Hough, R., Hazen, A., Culver, S., Garland, A., & Landsverk, J. (2002). Referral sources, diagnoses, and service types of youth in public outpatient mental health care: A focus on ethnic minorities. *Journal of Behavioral Health Sciences & Research, 29*(1), 45-60.

This study found significant differences in referral, diagnosis, and services received for youth from racial/ ethnic minorities when compared with Non-Hispanic-White youth. Participants were children and adolescents who received outpatient mental health services funded by San Diego County Mental Health Services during fiscal year 1996-97 (N = 3,962). Referral source, diagnosis, and services received were analyzed by ethnic/minority group and compared to Non-Hispanic-Whites (NHW; n = 1,985). Ethnic/minority groups included: African Americans (n = 714), Asian/Pacific Islander Americans (n = 122), and Latinos (n = 1,141).

Referral sources were collapsed into the following broad classifications: child welfare, crisis services, family and self-referral, juvenile justice, medical facility, mental health agency, schools, other, and missing. The primary diagnoses (one per youth) supplied from the most recent referral were analyzed and grouped into categories similar to those found in the DSM-IV. Services were collapsed into the following categories: Special Education Linked Mental Health Assessment (SELMHA), crisis services, outpatient clinic, outpatient institutionalized services, case management in conjunction with child welfare placements, short term case management, intensive case management, and day treatment.

Findings by ethnic/minority group in comparison to Non-Hispanic-Whites, and selected comments, are provided below:

- **African Americans**

  African-American adolescents were more likely to be referred from juvenile justice and child welfare, while both children and adolescents were less likely to be referred from schools. Children were less likely to be diagnosed with a mood disorder, while adolescents were more likely to be given a diagnosis of ADHD. Adolescents and children were more likely to receive outpatient services in conjunction with child welfare placements. Adolescents were less likely to receive a SELMHA, and both adolescents and children were less likely to be given day treatment services (provided by the schools). "The low referral rates of African-American youth from schools was unexpected given the overrepresentation of African Americans in public school services for youth with serious emotional disturbance" (p. 55).

- **Asian/Pacific Islander Americans**

  These youth were more likely to be referred from child welfare. This group was less likely to be diagnosed with ADHD, which may be an epidemiological phenomenon or may be the result of cultural differences between Asian/ Pacific Islander Americans and their interviewers (p. 56). This group was also less likely to receive services through the public school system. Given the cultural importance placed on academic achievement, this finding suggests that Asian/Pacific Islander Americans may be less accepting of school referrals, or that Asian/Pacific Islander Americans needing mental health services are underidentified by schools. These youth were also less likely to enter services voluntarily, suggesting the presence of stigma attached to mental health by this population. "These findings suggest that ethnicity-specific service centers located in the ethnic community may have great success in attracting and retaining Asian/Pacific Islander Americans in need of mental health services" (p. 56).

Continued...

- **Latinos**

  Latino youth were less likely to have been referred by a mental health agency or child welfare, but were more likely to refer themselves or be referred by a family member. The authors suggest that Latinos may be more likely to refer themselves for mental health services in San Diego County, where services for Latinos are available through ethnicity-specific parallel service centers. Yet more centers may be necessary, they suggest, to help overcome the Latino cultural stigma associated with mental health. These youth were more likely to be diagnosed with anxiety, adjustment, and psychotic disorders and less likely to be given a diagnosis of ADHD. The high prevalence of psychotic disorders in Latino adolescents may also reflect a culturally based reluctance to seek services until problems become severe (p. 57). Finally, these youth were more likely to receive services in an outpatient clinic, and were less likely to use day treatment or to receive a SELMHA—both provided by the schools. To this finding, combined with an awareness of the cultural stigma associated with mental health, the authors suggest that schools may need to focus on "improving the cultural sensitivity of school staff and relations with the Latino community" (p. 57).

The implications of this study highlight the need for ethnicity-specific community treatment centers that can help identify those youth and families from racial/ethnic minorities who have a need for mental health services, and encourage them to seek treatment. While the findings here need to be replicated in other counties, the results are intriguing.

DATA TRENDS

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

Source: Lyons, J. S., Terry, P., Martinovich, Z., Peterson, J., & Bouska, B. (2001). Outcome trajectories for adolescents in residential treatment: A statewide evaluation. *Journal of Child and Family Studies, 10*(3), pp. 333-345.

Leichtman, M., Leichtman, M. L., Cornsweet Barber, C., & Neese, D. T. (2001). Effectiveness of intensive short-term residential treatment with severely disturbed adolescents. *American Journal of Orthopsychiatry, 71*(2), pp. 227-235.

Of all the services available to youth with serious emotional disturbances and their families, residential treatment centers (RTCs) are among the most costly. In turn, most managed care providers have reduced the number of days for which a youth may receive services in a residential environment from 6-12 months to three months or less. While research has shown that gains can be achieved while in residential care, little is known about the characteristics of youth who benefit from residential treatment. Also, the little outcome data that exist indicate that those gains are not likely to be maintained after discharge.

This combination of factors—high cost, reduced lengths of stay, and sparse outcome data—makes it incumbent upon researchers and policymakers to further explore the efficacy of RTCs within a continuum of care. This *Data Trends* summarizes two articles that address these issues. Lyons et al. present "a first attempt to begin to establish an understanding of the trajectory of change" (p. 343) within residential treatment centers, while Leichtman et al. offer a model of "intensive short term residential treatment" as well as outcome data on youth after discharge.

Lyons et al. conducted a review of 285 case records (at multiple intervals) for youth in eight different residential treatment centers in a western state. Findings support previous research that some youth do improve while in an RTC. Lyons and colleagues add to our understanding of RTC gains by confirming differential changes among youth. For example, youth showed similar improvement at each center for high risk behavior (i.e., suicidal ideation, self-mutilation, and aggression toward people), while no change was found for aggression toward objects. Depression and reality assessment improved also, while disobedience, impulsivity and sexualized behavior stayed about the same across all centers. One center in particular showed marked worsening of hyperactivity and anxiety while youth were in treatment.

Leichtman et al. report on an intensive short term residential treatment program that was created in response to reductions in managed care benefits. The study consisted of 123 adolescents who were admitted to the Menninger Residential Treatment Program between March, 1994 and January 1998. The average length of stay for these youth was three to four months. Youth in this study had not responded to other forms of treatment, and their impairment at intake was considered severe.

Emphasis at this short term program is placed on helping youth transition from the RTC into the community, where children and their families can continue to work on problems at home: "The functions of nursing and child-care staff have also been expanded. No longer focusing on behavior within the milieu alone, they help adolescents deal with family issues, community activities, and discharge plans… [These changes] include shifts in staff attitudes regarding families and activities outside the residence; intensive work with families; and the use of community resources…" (p. 229). Finally, the program incorporates a systematic follow up process so outcomes at post-discharge can be measured.

Leichtman and colleagues found that youth "consistently showed statistically significant and clinically substantial improvement from admission to discharge…[and] improvement was sustained for the year following discharge" (p. 232). Although Leichtman and colleagues present a number of caveats to this study, their

Continued…

findings are encouraging. They suggest that "work with family issues and on facilitating community involvement while adolescents are in residential treatment" may have helped these youth to retain outcomes for as long as a year after discharge (p. 234). Notably, when interviewed after discharge, the youth themselves "almost invariably" indicated that their relationship with child-care workers "had the greatest impact on them" (p. 233).

In conclusion, in the 1999 Report on Mental Health, the Surgeon General indicated that "more research is needed to identify those groups of children and adolescents for whom the benefits of residential care outweigh the risks," and that "[t]ransferring gains from a residential setting back into the community may be difficult without clear coordination between RTC staff and community services, particularly schools, medical care, or community clinics" (Chapter 3, p. 171). Both of these studies reflect the recommendations of the Surgeon General: Lyons et al. confirm differential outcomes among youth in residence, and suggest that "residential treatment may be somewhat more effective with PTSD and emotional disorders rather than ADHD and behavioral disorders" (p. 343). Leichtman et al. show that gains can be maintained only if discharge planning includes an emphasis on family involvement, participation in community activities, and services.

Source: Chorpita, B. F., Yim, L. M., Donkervoet, J. C., Arensdorf, A., Amundsen, M. J., McGee, C., Serrano, A., Yates, A., Burns, J. A., & Morelli, P. (2002). Toward large-scale implementation of empirically supported treatments for children: A review and observations by the Hawaii Empirical Basis to Services Task Force, *Clinical Psychology, 9*(2), 165-190, and commentaries by: Henggeler, S., et al. (191-194); Bickman, L. (195-199); Hogan, M. F. (200-203); Gonzales, J. J., et al. (204-209); Hoagwood, K. (210-213); Kendall, P. C. (214-216); Roberts, M. C. (217-219); Jackson, Y. (220-222); Jensen, P. S. (223-224), and; Hawley et al. (225-230).

The State of Hawaii has undertaken a major effort to identify children's mental health services that have strong empirical support, and that might be implemented more broadly in Hawaii. This effort, by Bruce Chorpita and his colleagues, is the foundation piece for this series of articles, which collectively makes an important contribution to the discussion in the children's mental health field about evidence-based interventions.

The Hawaii Task Force, created by state legislation, included administrators, clinicians, and researchers from various disciplines, as well as parents. The Task Force reviewed 115 scholarly articles and rated treatment outcomes according to criteria established by the American Psychological Association (APA). While the APA-identified treatments that were: 1) Well Established/Efficacious, and 2) Probably Efficacious, the Hawaii Task Force added the categories of: 3) Possibly Efficacious 4) Unsupported, and 5) Possibly Harmful. The Task Force did not review psychopharmacological treatments, nor did it review articles in which treatments were classified by location as opposed to their procedures (i.e., treatment in residential treatment centers or therapeutic foster care or schools). Further, articles researching comorbidity and multi-modal treatments (with the exception of multi-systemic therapy) were not reviewed.

The journal *Clinical Psychology* provides an important service to the field by inviting 10 different individuals to comment on the lead article by Chorpita et al. While each commentator lauded the work of the Task Force—and especially its multidisciplinary nature—each also added to the current discussion over what constitutes an efficacious treatment and how to implement such treatments at the clinical level in real world settings. One of the major challenges identified by the commentators has to do with the limited research base currently available on effective services (treatment applied under real world conditions) as opposed to the much larger research base on efficacious treatments (treatment applied under special conditions, such as in a special lab, with volunteer subjects instead of real clients, or with unusually well-trained clinicians). A related challenge is the complexity of large scale implementation of interventions, even when effectiveness data are available. Hoagwood, for example, indicates that "the progression from effective treatments to their implementation and dissemination into real world practice settings is through largely uncharted scientific territory" (p. 212). She points out that until variables relevant to this progression at multiple levels are better understood, "a healthy skepticism about the relevance of evidence-based treatments is warranted" (p. 212).

Several themes emerged from the articles of the commentators that are germane to the current state of mental health services, and services research.

Practitioners: Historically, practitioners have been reluctant to use manualized treatments and are not expected to receive empirically supported treatments at the implementation level very well. However, inclusion of practitioners at every stage of treatment design and implementation may help offset this reluctance, especially when practitioner needs vary from location to location. Henggeler suggests that clinicians are likely to respond positively to empirically supported treatments when those treatments are: (a) clearly superior to current treatments, (b) not too different from current treatments, (c) simple rather than complicated, (d) can be tried out in stages or temporarily, and (e) have visible outcomes. Kendall, Roberts, Gonzales et al. and Jackson each argue that a "collegial

demeanor" and working relationship between researchers and practitioners will prove beneficial at all stages of research, but especially at the implementation stage. This insight also recalls Henggeler's discussion of organizational characteristics that help move implementation along (i. e., an organization is more likely to adopt innovations when representatives from all levels of the organization are included in the change process).

Journals: Commentators also expressed concern over the role of scholarly journals with regard to standardization, data collection, and implementation. First, data collection could be more uniform if journals—and authors— were to standardize more rigorously the reporting of certain demographic data (e.g., ethnicity). Jensen suggests that journals actively include "guidelines that journal editors might recommend be used when manuscripts concerning the efficacy of a given intervention are submitted" (p. 224). Second, unspoken scholarly and journalistic parameters may hinder data collection. For example, Chorpita et al., created the Unsupported and Possibly Harmful categories in the event that they came across studies with poor or questionable outcomes. They did not come across any of these studies, not because such treatments do not exist, but because they remain unpublished. However, Hawley et al. write that "such information is extremely important to clinicians and families" (p. 226). Third, journals can move implementation efforts forward by including articles that are relevant to real-world settings. Quoting Greer, Gonzales et al. suggests that "only infrequently do scientific articles speak directly to the realities of practice...not only is similarity of the cases to one's own patients missing, but the specifics of implementation are often missing as well" (p. 208).

Multidisciplinary collaboration: An overwhelming interest in the collaborative process was voiced by these commentators, from questions about the qualifications of the collaborators, to how disputes were settled, to a genuine interest in whether organizational dynamics might hinder the collaborative process. Regardless, commentators suggested that implementation efforts would benefit from involving practicing clinicians "at the very start of such processes, at the point of conceptualizing the questions, especially those about barriers and solutions to treatment feasibility" (Gonzales et al., p. 208).

Measurement: Questions about measurement were wide ranging, from the specific to the theoretical. Specific concerns included Jackson's probing commentary about the relative lack of data on culture, acculturation, and ethnicity, and Hogan's concern over rigid parameters used to denote childhood development (i.e., through chronological age only). Hoagwood's concerns were more theoretical; she advocated for a revisiting of certain constructs that are based on artificial distinctions (i.e., single/multiple diagnoses, prevention/intervention, location-based/ procedure-based treatments). Furthermore, Hoagwood suggests that some constructs, such as functionality, are still not conceptually clear. In particular, she questioned the utility of using a diagnosis to determine what kind of treatment a child ought to receive. For example, she reports that it has been shown that there is poor agreement between the diagnosis a researcher would give a child (based on the DISC) and the diagnosis a clinician would give the same child. Therefore, when treatment is driven by diagnosis, it may be possible to assign the wrong treatment to a child due to an erroneous diagnosis. She writes, "The problem is the way in which science is carved out into linguistic categories and then takes on an independent existence as funding streams and administrative bureaucracies harden these categories into insular entities" (p. 211). This comment bears a remarkable resemblance to Bickman's charge that diagnostic categories encourage "silos of intervention" (p. 196), when intervention treatments are based on a singular diagnosis. Other commentators raised similar reservations about diagnosis-driven treatment.

Another area of concern had to do with factors not currently measured but which, commentators argue, ought to be. For example, Bickman would like to see therapeutic alliance as a measurable factor, and Jackson welcomes the measurement of cultural and acculturation factors. Finally, commentators were in agreement that

Continued...

comorbity, psychopharmacological treatments, multi-modal treatments, and location-based treatments need to be included in future reviews of the literature.

This set of articles provides readers with both a sense of urgency and caution over the next steps toward implementation of empirically-based interventions. This is of course a tricky place to be: we must both look backwards at our research while continuing to move forward toward implementation. Yet each time we look either way, we learn more and we question more. Perhaps Danish philosopher Søren Kierkegaard understood this problem when he wrote: "It is quite true what philosophy says: that life must be understood backwards. But then one forgets the other principle: that it must be lived forwards. Which principle, the more one thinks it through, ends exactly with the thought that temporal life can never properly be understood precisely because I can at no instant find complete rest in which to adopt the position: backwards."

Source: Jensen, P. S. (Ed.) (2001). Special Section: ADHD comorbidity and treatment outcomes in the MTA. *Journal of the American Academy of Child and Adolescent Psychiatry, 40*, 134-179.

Jensen, P. S., *Introduction*, 134-136.

Jensen, P. S., Hinshaw, S. P., Kraemer, H. C., et al., *ADHD comorbidity findings from the MTA study: Comparing comorbid subgroups*, 147-158.

Conners, C. K., Epstein, J. N., March, J. S., et al., *Multimodal treatment of ADHD in the MTA: An alternative outcome analysis*, 159-167.

Swanson, J. M., Kraemer, J. C., Hinshaw, S. P., et al., *Clinical relevance of the primary findings of the MTA: Success rates based on severity of ADHD and ODD symptoms at the end of treatment*, 168-179.

The Collaborative Multisite Multimodal Treatment Study of Children with Attention-Deficit Hyperactivity Disorder (MTA) of the National Institute of Mental Health is the largest clinical trial done in this country on a child mental health disorder. The articles to be reviewed here, all prepared by the team of MTA collaborators, demonstrate the complexity of analyzing data and interpreting findings from large-scale studies, even well-conducted studies, and at the same time call into question some of the initial conclusions.

The MTA was essentially a randomized clinical trial of four treatment strategies: medication management, behavioral treatment, the combination of these two, and usual treatment available in the community. In the medication management group, a specific algorithm was used to determine the use of medication. Also, families met monthly for 30 minutes with the prescribing doctor, dosage was higher and more frequent than in the community, and teachers' input was solicited to guide medication adjustments. The participants were 579 children with ADHD from seven sites across the U.S. and Canada.

The initial finding was that both the combination and medication management groups were statistically significantly more effective than the community comparison group, medication management was more effective than the behavioral group alone, and there were no significant differences between the medication management group and the combination group. This last finding of no difference between the medication management group and the combination group raised considerable interest since the behavioral intervention, used as part of the combination intervention, was extensive and intensive and thought to include some of the strongest psychosocial components for addressing ADHD, and multimodal treatment was considered to be the treatment of choice by many for ADHD.

While it was concluded that there were no differences between these two groups on the child outcome measures, it was found that parents whose children received the combination treatment were more satisfied with the treatment than parents whose children received medication management alone. In fact, 71% of parents in the combination group indicated that they were strongly satisfied compared to 32% of parents in the medication management group.

The present studies shed important additional light on the findings, and help illustrate how the results of a study can very much depend on how the analyses are conducted. In the first study briefly reviewed here, Jensen et al. divided the participants into four groups, based on the presence of comorbid conditions: ADHD alone; ADHD with an anxiety disorder; ADHD with either oppositional defiant disorder or conduct disorder; and ADHD with both an anxiety disorder and either oppositional defiant disorder or conduct disorder. This division of the participants reveals that the relative effectiveness of the different treatments depends on the

Continued...

condition of the children. Participants with ADHD and anxiety responded equally well to all three experimental conditions – medication alone, behavioral alone, or the combination. ADHD-only and ADHD plus conduct problems responded only to treatments including medication. The group with all three conditions "appeared to derive substantially greater benefits from combination interventions compared with all other treatments" (p. 155). This is a very important finding partly because of its implications for understanding and treating ADHD in children and partly because it illustrates the importance of conducting analyses in which the subjects are disaggregated and not viewed as if they were a homogeneous entity. This type of analysis allows researchers to determine how to best match treatments with characteristics of individuals.

The second study, by Conners et al., focused more on the measurement of improvement. The original findings of the MTA study were based on the use of 19 outcome measures. With the use of multiple outcome measures, the researchers chose to use a statistical correctional procedure to adjust for the multiple tests they were conducting. This procedure results in a loss of statistical power, and a reduction in the likelihood of obtaining positive results. Conners et al., in their re-analysis of the data, used factor analysis procedures to construct a single "composite" measure of children's overall functioning. With this single composite measure, they found that the combination treatment was significantly more effective than the medication management with an effect size of .28. While an effect size of .28 is in the small to modest range, the authors concluded that it demonstrated that "combined multimodal therapy has a clinically meaningful and statistically significant advantage over monotherapies and community treatment" (p. 166). This is an important conclusion that differs from the conclusion reached after the initial analyses of the MTA study.

A similar finding was reached by Swanson et al. in their paper. Swanson et al. developed a single measure as well but they chose to develop a categorical outcome, maintaining that clinicians are faced with decisions about which treatment to use and that findings on a categorical outcome were more similar to the decisions that clinicians had to make than findings on a continuous outcome measure. The measure that they developed was based largely on parent and teacher rations of ADHD and oppositional defiant disorder symptoms. With this approach, they found that the overall success rates of the interventions were 68% for the combination treatment, 56% for medication management alone, 34% for the behavioral treatment alone, and 25% for the community comparison condition. The authors concluded that the superiority of the multimodality intervention in comparison to the medication management intervention was small to moderate, with the difference in success rates (68% versus 56%) representing a 21.4% difference in the rate of excellent response.

Overall, these studies greatly enhance the value and contribution of the MTA study. It is clearly commendable that the entire distinguished team of MTA collaborators, rather than strictly adhering to their original conclusions, engaged in these additional analyses to help better understand the findings. It is perhaps noteworthy that a hint of these results might have been contained in the data on parent satisfaction, which indicated greatest satisfaction in the group whose children received the combined treatment. While it is easy for the findings of complex studies to be summarized in brief sound bites, these analyses illustrate that such an approach is a real disservice, and argue for the type of complex analyses that can best present the full picture.

Source: Loeber, R., Farrington, D. P., Stouthamer-Loeber, M., Moffitt, T. E., Caspi, A., & Lynam, D. (2002). Male mental health problems, psychopathy, and personality traits: Key findings from the first 14 years of the Pittsburgh Youth Study. *Clinical Child and Family Psychology Review, 4*(4), 273-297.

Frick, P. J., (2001). Effective interventions for children and adolescents with conduct disorder. *Canadian Journal of Psychiatry, 46*, 597-608.

Research shows that youth with conduct problems (i.e., Attention-Deficit Hyperactivity Disorder, ADHD; Conduct Disorders, CD; Oppositional Defiant Disorder, ODD; and physical aggression) are at increased risk of delinquent behavior and problems with the legal system, as well as later life problems. In an attempt to understand the relationship between mental health problems and delinquent behavior, the first of these two articles focuses on the developmental trajectories that conduct problems can take in boys. In the second article, Frick discusses the strengths and limitations of four interventions for conduct disorders thought to be effective in controlled outcome studies, and presents additional principles for intervention strategies that acknowledge the multi-determined nature of CD. For the purpose of this summary, these articles work together to: (a) highlight the prevalence of ADHD and CD in children and adolescents, and (b) outline intervention strategies for the treatment of CD in children and adolescents.

> [T]he presence of ADHD may contribute indirectly to the development of conduct problems through its effect on children's interactions with peers and significant others or through its effect on the parent's ability to use effective socialization strategies, or through its effect on a child's ability to perform academically. Therefore, reducing ADHD symptoms is an important treatment goal for many children and adolescents with CD. (Frick, p. 599)

Loeber et al. present key findings of the Pittsburgh Youth Study on six mental health conditions (ADHD, CD, ODD, externalizing behavior, physical aggression, depressed mood, shy/withdrawn behavior, and delinquency), child and family characteristics, comorbidity, personality traits, and service delivery. Participants were inner-city boys attending either the first (n= 503), fourth (n = 508), or seventh grade (n = 506) in Pittsburgh public schools. This longitudinal study began in 1987; data generated from the project have been used for numerous studies over the years, and this article provides an overview of findings from some of those studies.

Findings indicate that across all three samples, 15-16% of boys had at least one disruptive behavioral disorder, and 20-25% of those boys had multiple mental health problems. The prevalence of CD increased dramatically between the ages of 10-13, and the prevalence of physical aggression increased between the ages of 7-9. However, whereas the prevalence of CD continued to increase through adolescence, physical aggression began to decrease around the age of 15.

The prevalence of ADHD also decreased as boys entered adolescence. Over half of high risk boys in all samples had ADHD problems, and the risk for developing ADHD increased with the number of risk factors. Boys with ADHD were very likely to develop co-occurring, externalizing disorders (i.e., conduct problems, physical aggression). Thus, a relationship was suggested between the presence of ADHD in children and the development of conduct disorders in adolescents. Consistent with Loeber et al., Frick suggests that there may be a developmental progression from ADHD to CD. He writes, "The impulsivity associated with ADHD may lead directly to some of the aggressive and other poorly regulated behaviors of children with CD" (p. 599; see text box).

The article by Frick begins with a discussion of the strengths and limitations of four treatment modalities that have been researched in controlled outcome studies and are thought to be effective for children and adolescents with CD: Contingency Management Programs (CMP), Parent Management Training (PMT), Cognitive Behavioral Skills Training (CBST), and Stimulant Medication. On the one hand, Frick argues that

Continued...

these modalities do not go far enough to treat each child according to his or her individual needs and abilities. He notes that a "significant proportion" of children and adolescents with CD do not respond well to the above four treatments, or if they do, their behavior is rarely reduced to a normative level. Furthermore, improvements brought about through these treatments do not often carry over to other areas of the child's social context, such as schools. On the other hand, Frick notes that children under the age of eight tend to demonstrate the greatest degree of improvement when treated by one or more of the above modalities. While this finding is encouraging with regard to young children, Frick notes that it also highlights the need for more effective interventions for adolescents.

While Frick finds some aspects of the above treatment modalities to be fairly encouraging, he argues that these treatments have overlooked two important elements in the treatment of CD: 1) that the disorder is multi-determined, i.e, that it is the "end result of a complex interaction among many different types of causal mechanisms" (p. 600): and 2) that the children and youth who have CD are not a homogeneous group. Rather, children and adolescents develop CD along individual, developmental pathways. As a result, no single intervention is likely to treat successfully all youth with CD. Frick provides additional insight into this claim by discussing developmental differences between adolescent-onset and childhood-onset CD. Adolescent-onset CD is characterized by a sudden onset of symptoms, and appears to be "an exaggeration of the normative developmental process of identity formation that takes place in adolescence" (p. 602). In comparison to children, these teens are more likely to value social relationships, and are less likely to have difficulties with impulsivity or cognition.

Unlike adolescent-onset CD, which appears to take one form only, childhood-onset CD can present with two different sets of traits, defined here as: 1) callous and unemotional, and 2) impulsive and emotional. Children with CD who display *callous, unemotional* traits tend to have few behavioral inhibitions, and are "less sensitive to punishment cues than reward cues." These children are also less likely to respond to "negative emotional stimuli" (p. 602). Yet children with CD who display *impulsive* and *emotional* characteristics are quite different from their counterparts. Children in this latter group tend to have difficulty regulating their behaviors and their emotions. These children are highly impulsive and emotionally reactive, and this combination of characteristics can lead to impulsive and aggressive acts for which the child may later feel remorse.

Frick suggests that future treatments must incorporate a few basic principles if they are to treat children and adolescents with CD successfully: 1) interventions must be tailored to the individual needs of the child; 2) interventions must be founded upon an understanding of the causal processes by which CD develops in that particular child; 3) there must be a "clear, comprehensive, and individualized case conceptualization to guide the design of a focused and integrated treatment approach" (p. 603); and 4) interventions must involve the input of multiple professionals and community agencies and have strong case coordination. According to Frick, two programs that are flexible enough to incorporate these principles are the FAST Track Program, developed by the Conduct Problems Research Group, and Multisystemic Therapy (MST).

In conclusion, Loeber and colleagues highlight the importance of interventions with boys who have conduct problems. They note that a high percentage of boys with conduct problems do not receive mental health services prior to their first serious offence. They found that by the eighth grade, delinquent boys had been exhibiting problem behaviors for about six years before they appeared in court, and according to the authors, this six year period provides a "wide opportunity for intervention" (p. 292). This point, coupled with Frick's finding that children under the age of eight respond fairly well to current treatment modalities, is

somewhat encouraging. Together, both articles lend support to the daunting possibility that if left untreated, children with ADHD may develop CD in adolescence.

Finally, systems of care (SOC) are specifically designed to provide comprehensive and individualized interventions for children with serious emotional problems, including delinquency. Although Frick does not discuss SOCs directly, his overall position on the treatment of CD is compatible with SOC principles. For example, he argues that "treatment must be comprehensive, taking into account the myriad factors within the child and his or her social context that can cause and maintain CD symptoms" (605). Individuals concerned, especially, with the design of new treatment modalities for children and adolescents with conduct disorders (including ADHD and CD) are encouraged to review these timely and accessible articles.

Source: Edlund, M. J., Wang, P. S., Berglund, P. A., Katz, S. J., Lin, E., & Kessler, R. C. (2002). Dropping out of mental health treatment: Patterns and predictors among epidemiological survey respondents in the United States and Ontario. *American Journal of Psychiatry, 159*(5), 845-851.

This article presents the results of a study of premature termination patterns among residents of the United States and Ontario using mental health services. Although the study surveys individuals between the ages of 15-54 years, findings with regard to youth ages 15-24 are especially salient. In support of previous findings, statistically significant results of the current study indicate that youth are *more likely to drop out of treatment than any other age group studied*, and that—among all age groups—lack of insurance figures prominently into treatment drop out rates.

Initial data were taken from the US National Comorbidity Study and the Mental Health Supplement to the Ontario Health Survey (1990-1992). From this database, respondents were selected for interviews if they had received treatment for self-reported mental health problems (i.e., emotions, "nerves," mental health, use of alcohol or drugs) at some period during the preceding 12 months. A total of 830 Americans and 431 Canadians were interviewed ($N = 1,261$). Of this group, respondents who had terminated treatment, but did *not* report that treatment had improved symptoms, were classified as "treatment dropouts." Although the dropout rate increased over time, crude dropout rates were 19% for Americans and 17% for Canadians.

The authors measured variables in four domains that may influence treatment dropout: 1) *sociodemographic data* were collected on gender, family income, urbanicity, country of residence, education and ethnicity; 2) *diagnoses* occurring in the year prior to the interview were assessed for each respondent, and were grouped into the following categories: major depressive episode, mania, dysthymia, social phobia, simple phobia, agoraphobia, generalized anxiety disorder, panic disorder, alcohol abuse or dependency, and drug abuse or dependence; 3) *treatment modes* were grouped into the following four, broad-ranging categories: pharmacotherapy and talk therapy; talk therapy only; pharmacotherapy only, and; spiritual counseling, and; 4) *attitudes* toward mental health services were ascertained by asking respondents to estimate the percentage of people that they thought could helped by such services. Respondents who estimated that 50% or fewer of all individuals receiving mental health services would be helped were assessed to hold negative attitudes toward mental health services.

Results indicated that individuals receiving treatment for a single disorder were more likely to dropout of services than those receiving treatment for co-occurring conditions. Similarly, individuals were more likely to terminate services that provided only one mode of treatment (e.g., talk therapy or pharmacotherapy) than those receiving dual-modality treatments. Additionally, age, lack of insurance, and the belief that mental health treatments are not effective also were found to predict dropout.

These findings further illuminate the dropout problem as it relates to adolescents with mental health problems and their families. First, "Mental health treatment dropout is a serious problem, especially among patients who have low income, are young, lack insurance, are offered only single-modality treatments, and have negative attitudes about mental health care" (p. 845). Second, because youth with mental disorders often have "greater morbidity, dysfunction, and worse longitudinal cours[es]" (p. 849) than their elder counterparts, treatment dropout is an important issue for researchers and policymakers concerned with the mental health needs of youth and their families.

While the authors list limitations to this study, implications for policy and services can still be culled from their findings. For example, interventions and health care policies need to work to reduce stigma

Continued...

surrounding mental health issues, and health care clinicians should be encouraged to talk to their patients about the appropriateness of mental health services. In an effort to reduce negative perceptions of mental health care, researchers, clinicians, and policymakers must continue to educate the public about mental health care. Also, increased efforts should be made to help individuals feel comfortable in mental health care settings. According to the authors, "a large proportion of respondents believe that mental health treatments are not effective…[and] respondents who reported feeling uncomfortable in mental health care were substantially more likely to drop out of treatment" (p. 849). Furthermore, although unmentioned by the authors, mental health clinicians need to keep abreast of the most recent studies of effective treatments and service delivery systems. Finally, although the finding that insurance status affects mental health services use is not new, this article supports the need for greater insurance access for youth with serious emotional disorders and their families.

Revised 6/28/02

Source: Wilmshurst, L. A. (2002). Treatment programs for youth with emotional and behavioral disorders: An outcome study of two alternate approaches. *Mental Health Services Research, 4*(2), 85-96.

This article reports on a study comparing two modes of service delivery for children with emotional and behavioral disorders (EBD): a) a community-based family preservation program (FP), and b) a five-day residential treatment program (5DR). Both programs were located in Canada. In contrast to services provided in a community setting, residential treatment centers (RTCs) serve children in a live-in, out-of-home setting. According to the author, only one controlled study comparing community-based services with RTCs has been conducted. That 1978 study found no difference in outcomes for youth served by therapeutic foster care or an RTC program. To the contrary, the current study revealed statistically significant improvement among youth who attended a community-based program when compared to youth who attended an RTC-based program. This article, therefore, makes an important contribution to children's mental health services delivery research.

The FP program is modeled upon principles common to a system of care, and the 5DR is patterned after the RTC model of service delivery. Both programs also differ in treatment approach. Whereas the FP program incorporates cognitive-behavioral methods to bring about change, the 5DR program employs a "brief solution-based" treatment methodology.

The FP program provides in-home service delivery and intensive in-home support for approximately 12 hours per week. Based on the premise that families and therapists can work together to bring relief to the child and family, the FP program includes a flexible intervention approach, operates on a family preservation model of intervention, emphasizes building upon positive family strengths, and provides crisis intervention, family counseling, assistance with child management and skills to enhance family functioning, and provides access to other community support programs.

While the 5DR program resembles the RTC model, it has some features uncommon to typical RTC services. For example, youth stay in residence from Monday through Friday and return home on the week-ends. The 5DR brief solution-focused approach to treatment operates on the premise that the youth is the most invested of all participants (e.g., clinician, parent, teacher) in affecting positive change. Therefore, if one allows the youth to determine the "direction and purpose" (p. 89) of his or her desired change, that change will more likely be realized. Youth residing at the 5DR center are exposed to individualized and flexible programs that allow them access to Day Treatment Schools or regular, community-based schools. Also, the support and involvement of the child's parent or guardian is considered essential to the program.

Thus, both programs differed somewhat in service delivery and primary treatment approach, but they also shared some elements of a community-based approach to treatment (e.g., individualized treatment plans and family participation). The treatment goals for both programs were the same: to reduce the prevalence of externalizing and internalizing disorders and to improve functioning and prosocial behavior among youth with EBD.

Participants were youth with severe EBD who were in need of intensive services. These youth were randomly assigned to either the FP or the 5DR program to receive treatment over a three-month period. Assignation to the 5DR program was based upon the availability of beds; if there were no beds available, that particular youth was assigned to the FP program. Youth were assessed three times: at intake, at 3-months (posttreatment) and one year after discharge. Measurement instruments were the Standardized Client Information System (SCIS), an instrument developed in Ontario and based on the CBCL, and the Social Skills Rating System (SSRS). Respondents were parents, teachers, and youth. Because attrition rates were especially high among teachers and youth, analyses were based primarily on parent reports. As a result of this attrition,

Continued...

the study sample included 38 youth assigned to the FP program, and 27 assigned to the 5DR program. Nearly all children were Caucasian, and were being raised by single mothers. There were no significant demographic differences between groups. The average age of the youth was between 10-11 years.

Results indicate statistically significant improvement across a number of domains. For example, as shown in Table 1, FP youth made greater improvements in externalizing, and internalizing problems than did youth served by the 5DR program. Further analysis of SCIS data revealed statistically significant differences in psychopathology between each group. FP youth with ADHD showed more improvement at

Table 1 Outcome measure	Pretreatment		Posttreatment		1 Year Follow Up	
	M	SD	M	SD	M	SD
Total externalizing						
FP (SCIS)	82.16	19.9	73.92	13.2	70.89	12.4
5DR (SCIS)	81.26	9.8	74.59	9.6	73.22	12.2
Total Internalizing						
FP (SCIS)	69.76	13.3	66.24	13.4	62.58	11.6
5DR (SCIS)	65.74	11.8	67.15	13.3	66.41	12.8
Social Competence						
FP (SSRS)	74.23	10.59	81.74	14.98	82.87	14.98
5DR (SSRS)	74.67	12.02	81.73	13.14	81.53	11.91
Behavior Problems						
FP (SSRS)	128.92	12.62	121.12	13.57	119.15	13.78
5DR (SSRS)	130.60	10.25	121.53	12.31	118.23	12.19
SCIS= Standardized Client Information System ; parent report (higher score = worse behavior) SSRS= Social Skills Rating System (SSRS); parent report (lower score = worse behavior)						

posttest and at follow up than did 5DR youth. Long-term improvement in internalizing disorders (e.g., anxiety and depression) was also found for FP youth when compared with 5DR youth: FP youth showed a 24% reduction in symptoms for general anxiety, as compared to 3% of 5DR youth. And while 26% of FP youth reported a decrease in clinical depression, only 11% of 5DR youth were found to have lower rates of clinical depression at posttest. Some findings were statistically significant in the direction of poor outcomes. For example, when compared with FP youth, a significant percentage of youth in the 5DR program showed worse scores for internalizing disorders at intake and follow up. Also, a greater proportion of 5DR youth reported an increase in general anxiety, separation anxiety, and depression, when compared to FP youth.

Limitations of this study are generally due to the small size of each group and the low response rate of youth and teachers on the SCIS and SSRS. Furthermore, at intake, most parents rated their children as being extremely impaired in all four problem areas (externalizing, internalizing, social, and behavioral), and as a result, the author could not rule out a regression toward the mean. Therefore, Wilmshurst suggests that these results be interpreted with caution. With regard to the success of the FP in comparison to the 5DR, the author notes that the FP program provided almost twice as much family contact time to youth in comparison to the 5DR program (p. 94), and that youth assigned to the 5DR in this study may have experienced increased impairment associated with their interaction with other troubled youth in residence.

In conclusion, although the 5DR in this study was not a typical RTC program (i.e., because children were allowed home on the weekends, etc.), this study suggests that relatively few gains may be expected of youth served by a residential-type treatment center in comparison to youth who are served in a community-based setting. Although both treatment options (cognitive-behavioral and brief solution-focused) included some elements of the system of care philosophy, the study lends support to community-based care over residential programs in general. The author suggests that further research on RTC services and outcomes is needed. Because youth served by the 5DR program exhibited increased internalizing symptomatology, Wilmshurst suggests that more research should also be conducted on the iatrogenic effects of residential programs.

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

Source: Malmgren, K. W., & Meisel, S. M. (2002). Characteristics and service trajectories of youth with serious emotional disturbance in multiple service systems. *Journal of Child and Family Studies, 11*(2), 217-229.

This article complements our current understanding of youth with a serious emotional disturbance (SED) by providing additional multi-service sector and risk factor data on youth who also receive special education services. The authors reviewed archival records for youth with SED who were served concomitantly by the special education, child welfare, and juvenile justice sectors for characteristics of early service delivery and risk factors experienced by these youth. Data were further analyzed to determine differences in service use and risk factors by ethnicity and gender. All youth were from a Northeast suburban area. The mean age of the total sample (*N* = 93) was 16.7, and over three-fourths of the youth were male. Almost half of the sample were Caucasian (46%), followed by African American (42%) and Hispanic (12%) youth.

Data from the archival records (*n* = 47) indicated that the average age of initial contact with *any* service sector was 8.4 years. About half of these youth were referred by their schools for special education services before receiving other special services (i.e., child welfare, juvenile justice). Child welfare was the first agency of contact for almost one-third of the youth, followed by juvenile justice (19.1%).

As shown in Table 1, youth who first came into contact with *special education* did so at an average age of 10 years (*n* = 88); the average age for initial contact with *child welfare* (*n* = 57) was about the same, while youth who first received services through *juvenile justice* (*n* = 89) were, on average, about two years older. Females were significantly older than males when they first received services from special education and juvenile justice, and were also older than males upon first contact with child welfare. Hispanic youth who first came into contact with special education services were significantly older than their African-American and Caucasian peers.

Table 1. Means and Standard Deviations of Age in Years at Initial Contact by Agency											
Group	Special Education			Juvenile Justice			Child Welfare			Any*		
	M	SD	n	M	SD	n	M	SD	n	M	SD	n.
All	10.2	3.8	88	12.9	2.3	89	10.9	4.1	52	8.4	3.5	47
Ethnicity												
Afr Am	9.5	3.8	34	12.7	1.7	38	10.6	3.3	29	8.2	3.2	25
Cauc	10.0	3.5	43	13.0	2.3	41	10.8	5.2	18	8.0	4.0	18
Hisp	12.7	4.5	11	13.3	4.1	10	13.7	2.2	5	11.3	2.9	4
Gender												
Male	9.6	3.3	68	12.5	2.3	71	10.5	4.0	39	7.6	3.1	35
Female	11.9	4.2	20	14.7	1.4	18	12.1	4.0	13	10.7	3.8	12
*Any = First agency to officially provide service, regardless of agency or type of service rendered; n in this column only includes participants for whom age at initial contact data were available from all three participating agencies.											

Of the total sample of youth (*N* = 93), over three-fourths were placed in a special education program located in a general education school. The average age at which *all* youth in the total sample were identified as being eligible for special education classes was 11.4 years (see text box).

Risk factors were analyzed with regard to delinquency, substance abuse, parent or sibling incarceration, abuse or neglect, and school-related risk factors such as retention, suspension, attendance problems, and how often a youth changed schools in an academic year. Although the number of records documenting some risk factors was small, significant findings indicated higher rates of substance abuse, neglect, and family incarceration among African-American youth when compared to Caucasian and Hispanic youth.

Initial Category of Disability

More than half (55.6%) of youth in the sample were labeled SED when they were first determined eligible for special education. The average age of these youth at initial identification for special education was 11.4 years…. the mean age of youth not initially coded SED (n = 40) was 8.6 years at time of initial referral to special education. Those youth not initially assigned to the SED category were reclassified as SED at the age of 12.2 years on average. p. 223

Continued...

In conclusion, this study helps describe the multiple service use patterns and risk factors associated with secondary school students in a special education program who have SED. Based on the findings of the current study, the authors suggest that preventive interventions for SED should occur at a young age. "Optimally, interagency prevention strategies should be directed at children before age six (when 25% of our study's participants were already identified by at least one agency) and certainly before age eight (when over 50% were already identified)" (p. 227). Furthermore, because the average age of first contact with special education and child welfare was younger than that of first contact with juvenile justice, the authors suggest that the special education and child welfare sectors did not act as protective factors for the development of delinquency in these youth. Although females entered any service sector later than did their male counterparts, their rates of covert behavior (e.g., truancy, substance abuse) were no different than male rates. Accordingly, it is unclear whether a different developmental pattern for SED exists among females. The authors also argue for the inclusion of mobility (i.e., attending more than one school in an academic year) as a risk factor for youth with SED. Limitations include the narrow range of service sectors identified for analysis, the exclusion of records of students who had dropped out of school, and the small sample size for female and Hispanic youth.

This study also supports findings of studies previously reported by the Data Trends project. For instance, Garland et al. (Data Trends #35) found that older youth comprised the largest group of youth served by the juvenile justice sector, and that high rates of youth with any disorder (70%) were served by the special education sector. Rosenblatt et al. (Data Trends #29) found that delinquent youth with SED come into contact with mental health services at an average age of 15-16 years. With regard to the role of special education, Walrath et al. (2001a; Data Trends #38) reported that the public school system referred the highest number of youth for special services. In another article, Walrath et al. (2001b; Data Trends #48) found that conduct problems were the main presenting problem among youth referred for special services by schools. Taken together, the current study, along with the work of previously published authors, adds to our understanding of the complexity involved in serving youth with SED who also experience multiple risk factors. Although youth from different referral sources can be expected to have different profiles (Walrath et al., Data Trends #3; Rosenblatt et al., #4), some overarching patterns seem to stand out. Whether these patterns are the result of service systems, risk factors, or something else, is a question for future research.

References

DT # 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.

DT # 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.

DT # 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.

DT # 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

DT# 38 Walrath, C. M., Sharp, M. J., Zuber, M., and Leaf, P. (2001a). 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.

DT # 48 Walrath, C., dosReis, S., Miech, R., Liao, Q., Holden, E. W., De Carolis, G., Santiago, R., & Leaf, P. (2001b). 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.

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

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

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

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

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

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

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

For outpatient services, costs per treated child fell 25%, due mostly to a decline in costs per treatment day, although the number of days of care also fell slightly. Declines in outpatient costs were largest for children diagnosed with schizophrenia and were smallest for children receiving care for substance abuse. Decreases in both inpatient and outpatient mental health service use and costs tended to be larger among children aged 13

Continued...

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

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

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

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

Table 1. Enrollment and Utilization – Ages 0 to 17							
Year	Covered Lives	Inpatient Users		Outpatient Users		All Users	
		N	%	N	%	N	%
1993	1,054,076	3,610	0.34%	44,553	4.23%	45,283	4.30%
1994	1,129,720	4,298	0.38%	45,946	4.07%	47,526	4.21%
1995	1,013,509	3,720	0.37%	57,676	5.69%	58,270	5.75%
1996	1,044,843	2,199	0.21%	30,635	2.93%	31,443	3.01%
Change	-0.88%		-38.55%		-30.63%		-29.95%

Source: Dubois, D. L., Holloway, B. E., Valentine, J. C., & Harris, C. (2002). Effectiveness of mentoring programs for youth: A meta-analytic review. [Special Issue]. *American Journal of Community Psychology, 30*(2), 157-197.

This *Data Trends* summarizes the lead article in this special issue on youth mentoring programs. Although the special issue sheds light on both naturally occurring and volunteer mentoring programs, Dubois and colleagues provide considerable insight into the design and implementation of successful volunteer-based youth mentoring programs. Their analysis indicates that mentoring programs can have an overall positive effect on youth. However, the area of youth mentoring is complex, and the authors note that the "average" youth will receive relatively modest benefits from mentoring programs. Of the mentoring programs studied, the more successful programs were those that were directed toward youth experiencing conditions of environmental risk or disadvantage (i.e., low socioeconomic status) either alone or in combination with individual level risk factors for poor behavioral and emotional outcomes.

Dubois and colleagues conducted a rigorous meta-analysis of 55 empirical studies of youth mentoring programs. Outcomes and elements of each program were compared to a list of 14 dimensions. Those dimensions indicated: 1) the setting in which the mentoring took place, 2) whether the program was monitored, 3) whether the mentor had a helping background, 4) if the program screened prospective mentors, 5) whether mentors were matched with youth, 6) if there was mentor pre-match training, 7) whether mentors were supervised, 8) whether mentors received ongoing training, 9) the existence of support groups for mentors, 10) if there were structured activities for mentors and youth, 11) the role of parent support/involvement in the mentoring process, 12) the youth's expected frequency of contact with the mentor, 13) the youth's expected length of the mentoring relationship, and 14) the average frequency of contact between mentor and youth. Programs that included a majority of these components were associated with more positive outcomes than were programs that included few, or none of them.

> Mentoring is an inherently interpersonal endeavor. As a result it may be especially susceptible to obstacles and difficulties that can arise when youth targeted for intervention are already demonstrating significant personal problems…. Many of these youth are likely to be in need of relatively extensive amounts of specialized assistance, for example, a situation that is not necessarily well-suited to the primarily volunteer and nonprofessional status of most mentors. Considerations of this nature suggest a need for training and other appropriate forms of program support when attempting to provide effective mentoring to youth who are exhibiting individual-level risk. Dubois et al., p. 189

Findings indicate that five of these dimensions were especially salient to positive outcomes. Specifically, programs with a self-monitoring component, that train mentors on an ongoing basis, and that provide structured activities for mentor and mentee showed more positive results than did programs that do not adhere to these practices. Programs that encouraged parent support and involvement were shown to be very effective, as were programs that recruited mentors with a helping background (i.e., teachers). Results also indicate that youth are more likely to benefit from mentoring that occurs in the home or community, as opposed to schools.

This investigation also revealed that the success of a mentoring relationship is not dependent upon the type of mentoring program (i.e., alone, or in combination with other programs), nor is it dependent upon the program goal (i.e., behavioral, psychosocial, academic, etc.) or model (so long as the above dimensions are incorporated into the program). Additionally, programs targeting youth based solely upon their individual risk factors were shown to be effective if they also incorporated these dimensions in their guidelines. The gender, race, or ethnicity of the mentor correlated less with a successful mentoring relationship than did having a mentor with a helping background. This was especially the case for youth who are at risk for poor outcomes. The age, gender, race, and

family structure of the youth were also found to be less important to the mentor-mentee match than were the mentor's attitudes and practices toward forming a close relationship with the youth (see insert).

Some evidence indicated that mentoring relationships may do more harm than good for some vulnerable, or at-risk youth if the mentor relationship terminates prematurely. According to Grossman and Rhodes (in press): "[t]he impact of mentoring grows as the relationship matures, and short-lived relationships are associated with negative outcomes for youth" (p. 151). In fact, Dubois et al. found that youth frequency of contact with a mentor was not significant, but youth *expectations* of that frequency were. It is imperative that youth have clear expectations of what to expect from the mentoring relationship.

In conclusion, no single characteristic of the programs under study was found to be responsible for the positive outcomes reported above. Yet in this analysis, several factors emerged to help clarify strategies for effective mentoring programs. Successful mentoring relationships should foster the formation of strong bonds between mentor and youth. There should be ongoing training for mentors, and structured activities for mentors and youth. Expectations for frequency of contact must be made clear to the youth, and parents should be encouraged to support and become involved in the mentoring program. Also, program implementation must be monitored and, as suggested by the editor, mentoring programs should match the child's needs with an appropriate level of expense and intervention.

Source: Kutash, K., Duchnowski, A. J., Sumi, W. C., Rudo, Z., & Harris, K. (2002). A school, family, and community collaborative program for children who have emotional disturbances. *Journal of Emotional and Behavioral Disorders, 10*(2), 99-107.

This article describes the development and evaluation of a school-based program for students with emotional disturbances served in a special education setting. Results of studies in the children's mental health field point to two recent trends. First, the wraparound approach to providing integrated services to children with serious emotional disturbances is one of the most frequently used community-based treatment approaches for this population of children, with 80% of all state directors of children's mental health reporting the use of this approach in their state (Burns and Goldman, 1999). Secondly, an epidemiological study conducted in North Carolina indicated that children are most likely to receive needed mental health services through the school system rather than the specialty mental health system (Burns, 1995), which lead Burns to conclude that the school system is the de facto mental health system.

These two trends influenced Kutash and colleagues to: (a) design and implement a training program to develop a school-based wraparound program (*the School, Family, and Community Partnership*), (b) test the implementation of the model in a middle school, and (c) measure the longitudinal effects of the program on youth who were placed in special education due to emotional and behavioral disturbances in the areas of emotional, social/behavioral and academic functioning.

Kutash et al. detailed the training program developed for school staff and community members as well as procedures used to ascertain if the training was effective. Participants were assessed before training began, immediately after training concluded, and at six months post-training on their level of knowledge of the wraparound approach and general information regarding children with serious emotional disturbances. Results indicated that the training program increased the knowledge level of staff and their level of mastery was maintained six-months post training.

A major component of the Partnership Program is the School, Family, and Community Team. This team focused on the student and the family and included various school personnel, child-serving agencies, community representatives, extended family members, and informal supports. The purpose of this team was to integrate the various services the child received and to use the expertise of all members, including the child and family, in a collaborative setting. The team regularly worked together to develop the School, Family, and Community Plan, which identified the barriers to learning for the student and developed activities to remove them. The plan detailed strengths, needs, barriers, and actions present in the various life domains of each student.

Additionally, a measure of fidelity was developed to assess the degree to which the program concepts and principles were used and applied by school staff in partnership meetings with parents and students. An examination of the fidelity ratings of program implementation indicated that almost three-fourths (72%) of the model's concepts were being implemented during the two year operation of the program. Further, the authors examined the relationship between the amount of fidelity of implementation for a student and their outcomes over time. Correlational analyses indicated that over time, higher ratings of fidelity were associated with higher gains in reading skills, but not math skills, emotional functioning or impairment. This focus on fidelity is an important advance for the field.

The analysis of student outcomes concentrated on the 23 participating middle school students. These students were predominantly white males who were on average 11 ˚ years of age at the beginning of the study.

Continued...

Data were collected at entry, 12 and 18 months post-entry. There were no significant changes in students' levels of academic achievement in the areas of math or reading, number of days absent from school, or percentage of time spent in a special education environment. Discipline rates, however, did significantly decrease over time. While measures of emotionality and impairment as measured by the CBCL and CAFAS improved over time, the improvements were not statistically significant. A comparison group at another school was initially identified as part of the research design, however, substantial attrition of students prevented comparison of the two groups. Students in the comparison group were transferred to more restrictive educational environments (such as an alternative school) at a higher rate than the students in the target group, leaving these two groups too dissimilar to compare.

The Partnership Program provided a solid step in the direction of implementing a wraparound approach, interagency collaboration, and enhanced family involvement in a single intervention. The program was successful in reducing student discipline referrals. The lack of strong effects on emotional functioning and impairment may have been due in part to the inability of the Partnership Program to increase the use of mental health services from community agencies. Academic outcomes also were not significantly improved. The authors suggest an evaluation of the curriculum and instructional methods used in order to better understand the educational process for students who have ED.

References

Burns, B. J., Costello, J., Angold, A., Tweed, D., Stangl, D., Farmer, E. M. Z., & Erkanli, A. (1995). Children's mental health service use across service sectors. *Health Affairs, 14*(3), 147-159.

Burns, B. J., & Goldman, S. K. (Eds.). (1999). Promising practices in wraparound for children with serious emotional disturbance and their families. *Systems of care: Promising practices in children's mental health, 1998 Series, Vol. 4.* Washington DC: Center for Effective Collaboration and Practice, American Institutes for Research.

Source: Kataoka, S. H., Zang, L., & Wells, K. B. (2002). Unmet need for mental health care among U.S. children: Variation by ethnicity and insurance status. *American Journal of Psychiatry, 159,* 1549-1555.

Based on data from a large national survey, these researchers report that about 79% of children from 6-17 years of age who are in need of mental health services do not receive any services. These findings highlight the urgent need to identify strategies for improving access to care.

Kataoka et al. analyzed data from the 1997 National Survey of American Families (NSAF), which sampled 44,000 households and almost 29,000 children. Data are also examined from two other large national surveys, the 1998 National Health Interview Survey (NHIS), and the 1996-97 Community Tracking Study.

The authors identified need for service in the NSAF sample based on responses by parents to the "Mental Health Indicator," a scale that used selected items from the Child Behavior Checklist. Parents were asked whether in the last 12 months their child had received services from a doctor, mental health counselor, or therapist.

Overall, it was found that 20.8% of 6-17 year olds in the NSAF had a mental health problem requiring at least an assessment. This figure is consistent with the results of diagnosis-based community epidemiological studies. Of this group, only 21% received services. The degree of unmet need was greater for Hispanic children (88%) than it was for either Caucasian or African-American children (about 76% for both groups). Data from the NHIS identified the rate of unmet need as being 82% for Hispanic children, 80% for African-American children, and 72% for Caucasian children.

The relationship between unmet need and insurance coverage was also studied. In the NSAF sample, the rate of unmet need was 87% for children with no insurance, 79% for children with private insurance, and 73% for children with public insurance.

Since the question about use of services in the NSAF study did not specifically ask about services received through the schools, and because schools are a large provider of mental health services, it is likely that the rate of unmet need may be slightly less than reported here. Nonetheless, however, the rate is extremely high, and particularly so for Hispanic children and children with no insurance.

DATA TRENDS

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

Multisystemic Therapy (MST) is an evidence-based treatment approach that emphasizes family participation in the treatment of adolescents for criminal and substance abuse problems. In this article, Henggeler and colleagues report on the first long-term study of MST, and provide four-year outcomes of a randomized clinical trial conducted in the mid-1990s. Results of the current study provide initial evidence that some positive treatment effects of MST can endure over time. Participants in the current study (N = 80) were young adults who had either received MST treatment (n = 43) or services-as-usual for drug problems (n = 37) at the beginning of the study.

Initially, the study included 118 juvenile offenders (mean age: 15.7 years) with substance abuse or dependency problems. Participants had a criminal history that averaged 2.9 prior arrests by the time they had entered the study, and almost three-quarters had comorbid psychiatric problems. Over half had substance abuse problems, and 44% had dependency problems. Youth were assessed prior to receiving treatment, shortly after treatment completion, and six and 12 months post-treatment. Short-term results of the study were mixed; significant outcomes were not shown for criminal behaviors or mental health problems, and treatment gains for substance use were not maintained at six-months post-treatment.

For the current investigation, various methods were used to locate the original participants (e.g., visits, calls, directories), and of those located, 80 young adults agreed to participate in the follow-up study. About three-quarters of participants were male, 60% were African American, and 40% were White. As with the original cohort, most were economically disadvantaged. Almost half reported that in the past year they had committed one or more aggressive crimes, while slightly fewer had committed property crimes. Archival records for the previous 2 1/2 years revealed that conviction rates for aggressive and property crimes were 22% and 26%, respectively, for this group. No significant demographic, arrest, or service history differences were found between the young adults who did not participate in this study (n = 38) and those who did (n = 80).

Assessment instruments for the first study and for the follow-up study were as follows: (a) Self-Report Delinquency Scale (SRD; *criminal behavior*); (b) The Addiction Severity Index, the Youth Risk Behavior Survey (*illicit drug use*); and (c) The Young Adult Self-Report (YAS; *psychiatric symptoms* and *illicit drug use*). In addition, archival records from the State Law Enforcement Division were included to assess criminal behavior within the last year. Finally, participants gave biological samples (urine and hair) to test for current use of marijuana and cocaine.

Results revealed a 75% reduction in convictions for aggressive crimes among MST recipients since the age of 17 years. Biological samples indicated a significant, long-term decrease in the use of marijuana among MST recipients. Reductions in criminal convictions, activities, and drug use were not as marked among services-as-usual recipients as they were among MST recipients (see Table 1).

When reviewing these results, it should be kept in mind that treatment fidelity was low in the original study. In their initial outcome article, Henggeler et al. (1999a) suggested that greater treatment fidelity and a more concentrated focus on drug problems might improve outcomes for youth with substance abuse problems. Nevertheless, the current findings do "support the use of evidence-based, family-oriented treatment for substance-abusing youth" (p. 873), even though a group-oriented model is more common among substance abuse treatments.

With regard to serious mental health issues, participants in both samples continued to experience high rates of internalizing and externalizing behaviors four years post-treatment. Henggeler and colleagues have since adapted the MST model to effectively treat emotional disturbances (see Henggeler et al., 1999b; reviewed in *Data Trends* #18), but those changes were not implemented with the original study participants. Therefore, given the recent inclusion of new treatment modalities to treat externalizing and internalizing problems with MST (Henggeler, Schoenwald, Rowland, & Cunningham, 2002), this study supports the increased development of integrated services for the *combined* treatment of criminal behavior, illicit drug use, and emotional disturbance through evidence-based programs at the community level.

Table 1. Comparison of Multisystemic Therapy and Usual Community Services Participants on Outcome Measures at Four-Year Follow-up									
	Multisystemic Therapy (n = 43)			Usual Community Services (n =37)					
Outcome measures	Mean	SD	%	Mean	SD	%	Multi-variate F	Uni-variate F	X^2
Aggressive Crimes							4.23*		
SRD Aggressive Crimes	0.61	0.90		1.36	2.21			5.70*	
Annualized Convictions	0.15	0.43		0.57	1.80			4.02	
Property Crimes							NS		
SRD Property Crimes	0.89	2.01		1.26	2.39				
Annualized convictions	0.19	0.43		0.20	0.61				
Illicit Drug Use—self report							NS		
Marijuana	4.92	2.35		5.14	2.43				
Cocaine	0.37	0.94		0.40	0.91				
Illicit Drug Use—biological indicators									
Absistent from marijuana			55			28			4.09*
Absistent from Cocaine			53			40			NS
Psychiatric symptoms							NS		
YAS Externalizing	12.50	8.11		11.26	6.85				
YAS Internalizing	12.24	9.36		11.29	6.60				
Note: SRD = Self-Report Delinquency Scale; YAS = Young Adult Self-Report; NS = not significant; * = p < .05									

References

Henggeler, S. W., Pickrel, S. G., & Brondino, M. J. (1999a). Multisystemic treatment of substance abusing and dependent delinquents: Outcomes, treatment fidelity, and transportability. *Mental Health Services Research, 1*:171-184.

Henggeler, S. W., Rowland, M. D., & Randall, J., et al. (1999b) Home-based multisystemic therapy as an alternative to the hospitalization of youth in psychiatric crisis: Clinical outcomes. *Journal of the American Academy of Child and Adolescent Psychiatry, 38*:1331-1339.

Henggeler, S. W., Schoenwald, S. K., Rowland, M. D., & Cunningham, P. B. (2002). *Serious emotional disturbance in children and adolescents: Multisystemic Treatment*. New York: Guilford.

Keywords: ethnicity; service utilization; culture

This article reports on the relationship between demographic factors and diagnoses among youth served in public mental health systems in California. This study is unique because it includes five different ethnic groups and 13 county-based mental health service systems. The authors found gender, age, and ethnicity all related to clinical diagnosis at admission.

The sample consisted of 12,106 youth (4,332 girls; 7,774 boys) aged 2 to 21 who were enrolled in the California Children's System of Care (CCSOC) across 13 counties. The sample was ethnically diverse with 59% European American, 28% Latino American, 10% African American, 1.4% Asian American, and 1.3% Native American youth. This sample was relatively proportional to the population of this area, with the exception of African Americans, who were over-represented in the study sample, and Asian Americans, who were underrepresented in the service system.

Demographic information (youth's ethnicity, gender, and age) and primary DSM-IV diagnosis given by the treating clinician were gleaned from county management information systems. The clinicians did not use any standardized diagnostic instruments in determining diagnosis. However, after admission, participants were assessed using two standardized instruments, the Child Behavior Checklist (CBCL) and the Child and Adolescent Functioning Assessment Scale (CAFAS).

Mak and Rosenblatt describe the demographic characteristics, referral patterns, service utilization rates, standardized clinical and functioning indices, and diagnoses of youths entering the CCSOC. Youth's demographic characteristics (gender, age, and ethnicity) had a stronger influence on diagnoses than on CBCL or CAFAS scores. Furthermore, there was a stronger relationship between demographic characteristics and diagnosis than between measures of symptomatology and diagnosis.

As rated by clinicians and parents on the CBCL and the CAFAS, Latino Americans had fewer externalizing and internalizing problems and were the least impaired functionally when compared to the other ethnic groups, while European American youth were rated on average as having more emotional and behavioral problems and more difficulties than ethnic minority youth. However, ethnic minority youth were more likely to be diagnosed with externalizing and severe pathologies when compared to European American youth. Latin American youth were more likely to be diagnosed with disruptive behavioral disorders and substance abuse disorders, although scores of the CBCL and CAFAS do not indicate these diagnoses. The authors note that since diagnosis at admission often guides the treatment plan, Latin American youth may receive less effective treatment due to misdiagnosis. Similar findings were noted for other ethnic minority groups as well.

Gender differences were also evident in the diagnoses given to the youths. While parents reported similar levels of externalizing and internalizing problems among their male and female children, clinicians perceived males to be more functionally impaired than females. The authors suggest that clinicians may focus on externalizing problems in the diagnosis of boys and internalizing problems in the diagnosis of girls.

These findings suggest that clinicians may have preconceived ideas about youth being served by the public mental health system. Mak and Rosenblatt discuss some possible alternative reasons for the differential diagnoses among ethnic groups found in this study. One explanation is that youth enter into services via different system pathways (i.e., juvenile justice, mental health services, schools, social services), each of which emphasize different aspects of the youth's condition. Another explanation is the role culture plays in accessing

Continued...

and delivering mental health services. Ethnic minority families may delay seeking professional help or have different sensitivities to symptoms exhibited by their children. Clinicians may also lack the cultural knowledge necessary to treat their ethnic minority patients. According to Mak and Rosenblatt, "To achieve cultural competence in service delivery, not only do clinicians have to integrate sociocultural considerations in their interventions, service systems must learn the mechanisms that affect access and improve their outreach to minority populations." A review of the literature by Lopez and Guarnaccia (2000; see *Data Trends #30*) provides an informative reference on the topic of cultural psychopathology, with a section devoted to children. In addition to examining differences in diagnoses among minority youth, Yeh and colleagues (2002) examined differences in referral patterns and services received (see *Data Trends #55*).

This article demonstrates how critical cultural competency is for clinicians and the public mental health service system as a whole. The authors call for future studies examining the relationship between culture, help-seeking behaviors, disparities in access to services, and clinical decision-making.

References

Lopez, S. R., & Guarnaccia, P. J. J. (2000). Cultural psychopathology: Uncovering the social world of mental illness. *Annual Review of Psychology, 51*, 571-598.

Yeh, M., McCabe, K., Hurlburt, M., Hough, R., Hazen, A., Culver, S., Garland, A., & Landsverk, J. (2002). Referral sources, diagnoses, and service types of youth in public outpatient mental health care: A focus on ethnic minorities. *Journal of Behavioral Health Sciences & Research, 29*(1), 45-60.

Key words: barriers to care; parent report

This study examined child- and parent-reported barriers to children's mental health services among 116 families whose child needed services during his or her sixth grade school year. Results indicate that approximately 35% of these families experienced barriers to mental health services. Twenty-six percent of families indicated that *perceptions about mental health services* barred them from receiving treatment (e.g., mental health services were viewed with mistrust, the child refused treatment, or the family or child had a stigma about mental health problems), 23% indicated that *perceptions about mental health problems* impeded receiving care for their child (i.e., the need for services went unnoticed by family, teachers, and medical doctors, or problems were not considered severe enough for treatment, etc.), and 20% reported *structural barriers* (e.g., insurance problems, financial difficulties, lack of transportation, and inconvenient services, etc.). While findings suggest that these barriers are complex, they also provide important insights to guide policymaking. For example, because difficulties with parenting a child with psychosocial problems was significantly associated with each type of barrier (i.e., structural, and perceptions about mental health problems and services), the authors suggest that "particular attention should be given to programs that focus on the needs of families who are most affected by their child's psychosocial problems" (p. 731).

Data for the study originated through an intervention program that began in 1993. Children in 27 first grade classrooms in the Baltimore public school system were randomly assigned to one of two school-based intervention programs or control, resulting in a total of 799 families. Of this group, over half were male, most were African American (85%), the rest were Caucasian (15%), and 69% received free or reduced lunches. When the child had reached the seventh grade, families and children were interviewed about any mental health needs or treatment received by the child in the previous year (i.e., during the sixth grade; $N = 579$). Of this group, 116 parents (20%) reported that their "child has used or needed mental health services" during that time (p. 731).

Interviews conducted regarding service use sought to determine: (a) the prevalence of structural barriers, barriers associated with perceptions about mental health problems, and perceptions about mental health services; (b) characteristics associated with these barriers; (c) how the child's mental health condition affected his or her parents' relationships to these barriers, and (d) whether types of barriers vary by the type of care sought (p. 732). During the interview, parents were given a list of 15 barriers and asked to indicate which barriers kept them from finding treatment for their child (see Table 1). These barriers functioned as dependent variables. Independent variables included questions about the effect of the child's psychosocial problems on the parents, parent stressors (i.e., at least three stressful life events, such as being a victim of a crime, severe illness, death of a loved one, etc.), child's mental health and service use, child stressors, and the intervention program the child received in the first grade.

Sixty-four percent of families ($n = 75$) did not report any barriers to receiving services for their child. Of the remaining 35% ($n = 41$) who did report barriers to care, half reported barriers to entry into services, and the other half indicated barriers to receiving additional services. "Overall, parents who reported barriers to entry into the system were less likely to report structural barriers and more likely to report barriers related to perceptions of mental health problems compared with parents who reported barriers to additional services"

(p. 735). Characteristics associated with structural barriers included additional time spent caring for a child with mental health needs, parent stressors, and service utilization. Perceptions of mental health problems was associated with parent stressors and children's mental health service utilization as well, along with unemployment or disability, and divorce.

"These findings imply that barriers, whether externally driven (structural) or internally driven (perceptions), need to be understood in the context of the social and health environment" (p. 736). Although the authors expected to find an association between sociodemographics and barriers to care, none were found. In fact, there were no significant sociodemographic or intervention/control group differences between the 799 families of first graders, the 579 families interviewed at the seventh grade mark, the 116 families who identified their child has having used or needed services in the previous year, and parents who reported barriers to services and those who did not. According to the authors, the homogeneity of the sample may have contributed to this finding. Other limitations of the study notwithstanding, this article provides an analysis of barriers to care that have implications for policymaking. According to the authors, "intervention strategies should be targeted not only at the more traditional structural barriers to care, but also at barriers related to perceptions about mental health problems and services. For example, consideration should be given to public education campaigns that increase awareness and knowledge of mental health problems and services" (p. 737).

Table 1: Barriers to Children's Mental Health Services (N = 116)		
Types of Barriers to Care	**N**	**%**
Any barriers	41	35.3
Any structural barriers	24	20.7
Help too expensive	12	10.3
Services too inconvenient	9	7.8
Services too far away	8	6.9
Not to know where to go	18	15.5
No way to get there	6	5.2
Long wait for appointment	7	6.0
Any barriers related to perceptions of mental health problems	27	23.3
Thought problems not serious	24	20.7
Decided to handle problems on own	20	17.2
Any barriers related to the perceptions of mental health services	30	25.9
Lacked confidence in who recommended help	12	10.3
Had negative experience with professionals	10	8.6
Afraid of what family/friends would say (stigma)	3	2.6
Thought treatment would not help	6	5.2
People trusted most did not recommend help	12	10.3
Did not know whom to trust	10	8.6
Child did not want to go	12	10.3

DATA TRENDS

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

Source: Slade, E. P. (2002). Effects of school-based mental health programs on mental health service use by adolescents at school and in the community. *Mental Health Services Research, 4*(3), 151-166.

Key Words: school-based services, counseling, schools, adolescents

Proponents of school-based mental health programs claim that these services address unmet service needs in children and adolescents, especially among students with limited access to healthcare. Although a recent push toward expanding school-based mental health services has occurred, little is known about the use of school-based counseling programs and their effect on mental health counseling available outside the school.

Slade focuses on three empirical questions: (a) have school-based mental health programs increased adolescents' access to mental health counseling services; (b) do school-based programs complement, or substitute for, mental health counseling offered outside the school; and (c) how are school-based mental health programs impacting students from racial minority backgrounds who are more likely to have unmet mental health care needs?

This study is based on a secondary analysis of data collected for the National Longitudinal Study of Adolescent Health (Add Health). The Add Health dataset contains information on a nationally representative sample of adolescents attending grades 7 through 12 in 132 geographically, ethnically, and economically diverse middle and high schools across the United States from 1995. The Add Health dataset includes information from school administrators regarding the availability of school-based mental health counseling services. For this study, the author also used the in-home sample (n = 18,475) of the Add Health data, which is comprised of data from the students as well as their parents. Students reported on their personal use of mental health counseling at school and elsewhere and parents reported on demographic data, health insurance status, adolescent functioning and special education status.

Results show that on-site mental health counseling is available for approximately three out of every five adolescents who attend school. However, among all adolescents, school-based mental health services are used less frequently than non-school-based mental health services (4.4% compared to 8.8%). As the author points out, this finding contrasts with the Great Smokey Mountain Study of Youth (GSMS), which reported greater usage of school-based mental health services among its participants (see *Data Trends* Summary No. 13). However, the Slade study and the GSMS may not be comparable due to differences in the study samples and mental health delivery systems.

In conclusion, Slade reports that when mental health programs were available at school, students were significantly more likely to have seen a counselor during the past year. Students at schools identified as offering on-site mental health counseling reported greater usage than students at schools not offering school-based counseling (5.4% compared to 3.2%). This suggests that students may receive informal counseling from teachers, school nurses, school coaches, and other school staff who are not paid to provide counseling. Additionally, results indicate that schools offering on-site mental health counseling did not significantly impact the use of mental health services outside of the school. Only a small number (0.7%) of all adolescents reported using services in both sectors during the previous year, which represents approximately 5.6% of adolescents who reported using services in any sector. Slade suggests that "because few adolescents receive counseling in both school and non-school sectors in a given year, the data suggest that the school-based and community-based service sectors operate essentially as two parallel systems" (p. 163). However, Slade points out that there is only weak evidence to suggest that school-based counseling services may substitute for non-school-based

Continued...

counseling among special education students who generally use more mental health services. Finally, the author found that access to school-based counseling did not differ significantly by race.

These findings suggest that schools can and do have a significant positive impact on adolescent use of mental health counseling services. The author suggests future research should examine how limited school financial resources devoted to mental health services can best be used to complement existing mental health services in the community. This recommendation speaks to the importance of understanding and improving the relationship among mental health services provided inside and outside of schools. This study also highlights a need to better understand when and why school-based mental health services are used rather than non-school-based services.

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
Issues 49-70, summarized January – December, 2002
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.

DATA TRENDS

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.ihhcpar.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., DeCarolis, 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 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.

Summarized during calendar year 2002

Issue 49: Greene, R. W., & Abion, J. S. (2001). What does the MTA study tell us about effective psychosocial treatment for ADHD? *Journal of Clinical Child Psychology, 30*, 114-121. With commentaries by: Abikoff, H., pp. 122-125; Hoza, pp. 126-130; Wells, K. C., pp. 131-135; Whalen, C. K., pp. 1326-140; & Harwood, T. M., & Beutler, L. E., pp. 141-143.

Heriot, S. A., Evans, I. M., & Foster, T. M. (2001). An interactional approach to intervention research with children diagnosed with ADHD. *Journal of Child and Family Studies, 10*, 287-300.

Issue 50: Goldman, H. H., Ganju, V., Drake, R. E., Gorman, P., Hogan, M., Hyde, P. S., & Morgan, O. (2001). Policy implications for implementing evidence-based practices. *Psychiatric Services, 52*(12), 1591-1597.

Corrigan, P. W., Steiner, L., McCracken, S. G., Blaser, B., & Barr, M. (2001). Strategies for disseminating evidence-based practices to staff who treat people with serious mental illness. *Psychiatric Services, 52*(12), 1598-1606.

Rosenheck, R. A. (2001). Organizational process: A missing link between research and practice. *Psychiatric Services, 52*(12), 1607-1612.

Carpinello, S. E., Rosenberg, L., Stone, J., Schwager, M., & Felton, C. J. (2002). New York State's campaign to implement evidence-based practices for people with serious mental disorders. *Psychiatric Services, 53*(2), 153-155.

Issue 51: Friedman, R. M. (2002, January). *Child and adolescent mental health: Recommendations for improvement by state mental health commissions.* Unpublished Manuscript.

Issue: 52: Duggal, S., Carlson, E. A., Sroufe, L. A., & Egeland, B. (2001). Depressive symptomatology in childhood and adolescence. *Development and Psychopathology, 13*, 143-164.

DATA TRENDS

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

Issue 53: Bruner, C., Greenberg, M., Guy, C., Little, Weiss, H., & Schorr, L. (Eds.) (2001). *Funding what works: Exploring the role of research on effective programs and practices in government decision-making.* [Monograph]. National Center for Service Integration Clearinghouse and the Center for Schools and Communities. Des Moines, IA.

Issue 54: Dierker, L., Nargiso, J., Wiseman, R., & Hoff, D. (2001). Factors predicting attrition within a community initiated system of care. *Journal of Child and Family Studies, 10*(3), 367-383.

Issue 55: Yeh, M., McCabe, K., Hurlburt, M., Hough, R., Hazen, A., Culver, S., Garland, A., & Landsverk, J. (2002). Referral sources, diagnoses, and service types of youth in public outpatient mental health care: A focus on ethnic minorities. *Journal of Behavioral Health Sciences & Research, 29*(1), 45-60.

Issue 56: Lyons, J. S., Terry, P., Martinovich, Z., Peterson, J., & Bouska, B. (2001). Outcome trajectories for adolescents in residential treatment: A statewide evaluation. *Journal of Child and Family Studies, 10*(3), 333-345.

Leichtman, M., Leichtman, M. L., Cornsweet Barber, C., & Neese, D. T. (2001). Effectiveness of intensive short-term residential treatment with severely disturbed adolescents. *American Journal of Orthopsychiatry, 71*(2), pp. 227-235.

Issue 57: Chorpita, B. F., Yim, L. M., Donkervoet, J. C., Arensdorf, A., Amundsen, M. J., McGee, C., Serrano, A., Yates, A., Burns, J. A., & Morelli, P. (2002). Toward large-scale implementation of empirically supported treatments for children: A review and observations by the Hawaii Empirical Basis to Services Task Force, *Clinical Psychology, 9*(2), 165-190. With commentaries by: Henggeler, S., et al., pp. 191-194; Bickman, L., pp. 195-199; Hogan, M. F., pp. 200-203; Gonzales, J. J., et al., pp. 204-209; Hoagwood, K., pp. 210-213; Kendall, P. C., pp. 214-216; Roberts, M. C., pp. 217-219; Jackson, Y., pp. 220-222; Jensen, P. S., pp. 223-224, & Hawley et al., pp. 225-230.

Issue 58: Jensen, P. S. (Ed). (2001). ADHD comorbidity and treatment outcomes in the MTA [Special Issue]. *Journal of the American Academy of Child and Adolescent Psychiatry, 40.*

Jensen, P. S., Introduction, p. 134-136.

Jensen, P. S., Hinshaw, S. P., & Kraemer, H. C., et al., ADHD comorbidity findings from the MTA study: Comparing comorbid subgroups, 147-158.

Conners, C. K., Epstein, J. N., & March, J. S., et al., Multimodal treatment of ADHD in the MTA: An alternative outcome analysis, 159-167.

Swanson, J. M., Kraemer, J. C., & Hinshaw, S. P., et al. Clinical relevance of the primary findings of the MTA: Success rates based on severity of ADHD and ODD symptoms at the end of treatment, 168-179.

Issue 59: Loeber, R., Farrington, D. P., Stouthamer-Loeber, M., Moffitt, T. E., Caspi, A., & Lynam, D. (2002). Male mental health problems, psychopathy, and personality traits: Key findings from the first 14 years of the Pittsburgh Youth Study, *Clinical Child and Family Psychology Review, 4*(4), 273-297.

Frick, P. J., (2001). Effective interventions for children and adolescents with conduct disorder. *Canadian Journal of Psychiatry, 46, 597-608.*

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

Issue 60: Edlund, M. J., Wang, P. S., Berglund, P. A., Katz, S. J., Lin, E., & Kessler, R. C. (2002). Dropping out of mental health treatment: Patterns and predictors among epidemiological survey respondents in the United States and Ontario. *American Journal of Psychiatry, 159*(5), 845-851.

Issue 61: Wilmshurst, L. A. (2002). Treatment programs for youth with emotional and behavioral disorders: An outcome study of two alternate approaches. *Mental Health Services Research, 4*(2), 85-96.

Issue 62: Malmgren, K. W., & Meisel, S. M. (2002). Characteristics and service trajectories of youth with serious emotional disturbance in multiple service systems. *Journal of Child and Family Studies, 11*(2), 217-229.

Issue 63: Leslie, D. L., Rosenheck, R. A., & Horwitz, S. M. (2001). Patterns of mental health utilization and costs among children in a privately insured population. *Health Services Research, 36*, 113-127.

Issue 64: Dubois, D. L., Holloway, B. E., Valentine, J. C., & Harris, C. (2002). Effectiveness of mentoring programs for youth: A meta-analytic review. [Special Issue]. *American Journal of Community Psychology, 30*(2), 157-197.

Issue 65: Kutash, K., Duchnowski, A. J., Sumi, W. C., Rudo, Z., & Harris, K. (2002). A school, family, and community collaborative program for children who have emotional disturbances. *Journal of Emotional and Behavioral Disorders, 10*(2), 99-107.

Issue 66: Kataoka, S. H., Zang, L., & Wells, K.B. (2002). Unmet need for mental health care among U. S. children: Variation by ethnicity and insurance status. *American Journal of Psychiatry, 159*, 1549-1555.

Issue 67: Henggeler, S. W., Clingempeel, W. G., Brondino, M. J., & Pickrel, S. G. (2002). Four-year follow-up of Multisystemic Therapy with substance-abusing and substance-dependent juvenile offenders. J*ournal of the American Academy of Child and Adolescent Psychiatry, 41*(7), 868-874.

Issue 68: Mak, W., & Rosenblatt, A. (2002). Demographic influences on psychiatric diagnoses among youth served in California systems of care. *Journal of Child and Family Studies, 11*(2), 165-178.

Issue 69: Owens, P. L., Hoagwood, K., Horwitz, S. M., Leaf, P. J., Poduska, J. M., Kellam, S. G., & Ialongo, N. S. (2002). Barriers to children's mental health services. *Journal of the American Academy of Child and Adolescent Psychiatry, 41*(6), 731-738.

Issue 70: Slade, E. P. (2002). Effects of school-based mental health programs on mental health service use by adolescents at school and in the community. *Mental Health Services Research, 4*(3), 151-166.