

*Research & Evaluation
on Systems of Care*

Chapter 1

Chapter 1: Research & Evaluation on Systems of Care

Does the Continuum of Care Reduce Inpatient Length of Stay?

Introduction

Recent years have seen dramatic changes in the provision of mental health services to children with serious emotional disturbances. Driving these changes has been the 'systems of care' philosophy: the notion that children's needs are best served when care is integrated and coordinated across providers and when that care is child-centered and family-sensitive (Stroul & Friedman, 1986). A key feature of the systems of care approach is the belief that children can be treated effectively in the community when appropriate services are available (Behar, 1995). Because of this, services should be provided along a "continuum of care." In such a continuum, a wide array of services is provided, ranging from outpatient services to "intermediate" residential (e.g., group homes) and non-residential services (e.g., day treatment and partial hospitalization) to inpatient services in psychiatric hospitals. Children are placed along the continuum in the least restrictive appropriate setting possible.

One goal of the continuum of the care is to reduce the use of inpatient hospitalization. One means by which this is accomplished is the reduction in inpatient length of stay. Using data from the Fort Bragg Demonstration, this summary considers whether the continuum of care reduces inpatient length of stay.

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Method

Subject/Sites

The analyses presented here involve data from the Fort Bragg Demonstration, one of the largest program evaluations ever undertaken in the field of children's mental health services, and represent an extension of the Fort Bragg Evaluation. Employing a quasi-experimental design, that evaluation examined the experiences of children treated under a continuum of care established at Fort Bragg, North Carolina, with care provided under traditional insurance at two comparison sites.

Intervention/Program

The Fort Bragg Demonstration represented a test of the continuum-of-care philosophy of providing children with mental health services. (For an overview of the Fort Bragg Demonstration and Evaluation, see Bickman et al., 1995) Consistent with this, the Demonstration made a wide array of services available: outpatient therapy, acute inpatient hospitalization, in-home therapy, after-school group treatment, day treatment, therapeutic homes, specialized group homes as well as care in inpatient facilities and residential treatment centers. Consistent with the continuum-of-care philosophy, care was coordinated by treatment teams and case managers. All services were provided without charge to families.

Children and adolescents at the Comparison received services through the military's insurer, the Civilian Health and Medical Program of the Uniformed Services (CHAMPUS). CHAMPUS coverage is generous but, like typical fee-for-service insurance, covers only the ends of the service continuum—outpatient therapy and residential care in psychiatric hospitals. (Unlike most private insurance, CHAMPUS covers treatment in residential treatment centers.) Under CHAMPUS, individuals and their families arrange services on their own, and the

insurer makes no systematic effort to coordinate care. Families are subject to modest cost-sharing.

Analysis

The analyses presented here are based on the experiences of an evaluation sample of 216 individuals, all of whom were treated in psychiatric inpatient facilities within a year of entering the study. An extensive array of information on mental health status and psychosocial functioning was collected on these individuals at the time they entered the study. Information on the use of mental health services was taken from insurance claims (at the Comparison) and a management information system (at the Demonstration). Services records were organized so that the data for the analysis comprised over 328 inpatient admissions.

These analyses use hazard modeling to examine between-site difference in length of stay (LOS) and adjust that difference for between-site differences in client demographics (age, gender, race, family structure, family income and caretaker education); diagnosis, as well as symptomatology (CBCL total problems score); functioning (global level of functioning); previous service use; and caretaker's perceptions of the burden of caring for the child.

Preliminary Findings

As documented in Bickman et al. (1995), the effect of the Demonstration on the use of inpatient hospitalization was complex. Among children hospitalized during the study period, the average number of days spent in inpatient care was actually somewhat greater at the Demonstration (36.5 v. 33.3 at the Demonstration and Comparison, respectively). These figures, however, mask significant between-site differences in the way hospitalization was used. This is because the number of days spent in an inpatient facility in a given period reflects the number of admissions as well as LOS for each admission. The latter was 16% lower at the Demonstration (24 v. 28

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days at the Demonstration and Comparison, respectively: Bickman et al., 1995, p. 108). If LOS was shorter, however, how could total time spent in inpatient facilities be greater at the Demonstration? As discussed in Bickman et al. (1995), the answer is that individuals hospitalized at the Demonstration were more likely to have multiple admissions. The mean number of admissions at the Demonstration was 25% higher, and this gap more than offsets the shorter LOS. (Between-site differences in the likelihood of readmission are analyzed elsewhere: See Foster, 1997).

It is important to note that these calculations involve simple, unadjusted comparisons of the experiences of all individuals hospitalized at the Demonstration and Comparison. Such comparisons, however, potentially confound differences in the children treated with differences in how children were treated. If the groups of hospitalized children differed between sites, then simple comparisons of the two groups are potentially misleading. One would expect such differences since an explicit intention of the continuum-of-care philosophy is to reduce the number of admissions to inpatient facilities and to reserve their use for the most severe children (Behar, 1995).

It is not possible to assess whether the population of treated children (or of children using inpatient services) differed between sites. Information on their mental health status, family functioning or even basic demographics is not available for the entire population of users. Analyses of a sample of service users from the Demonstration and Comparison, however, suggest that individuals hospitalized at the Demonstration and Comparison did differ systematically (Bickman, Foster & Lambert, 1996). Thus, one would expect between-site differences in hospital length of stay, if for no other reason than that the group of children hospitalized differed between sites.

Results

1. Using Cox proportional hazards modeling, we find that the apparent effect of the continuum of care on length of stay found in Bickman et al. (1995) is not due to a confounding of systematic between-site differences in the types of children hospitalized. Multivariate analyses that control for a wide range of individual characteristics suggest that individuals hospitalized at the Demonstration were 24% more likely to be discharged at a point in time.
2. The apparent link between site and length of stay is explained by between-site differences in the likelihood of readmission and by the fact that subsequent admissions resulted in shorter stays. This was apparent in analyses that controlled for whether a given spell was the first, second, etc., contributed by a given individual. When this is done, the between-site difference in length of stay (and the hazard of discharge) disappears. When we analyze only first admissions, the hazard of discharge is virtually identical for the Demonstration and Comparison.
3. When we relax the proportional hazards assumption, we find that the relationship between site and length of stay varies with duration. Results (1) and (2) are no stronger than the proportional hazards assumption on which they are based—i.e., the assumption that the effect of site does not depend on how long an individual has been hospitalized. To assess whether this assumption is tenable, additional analyses allowed the effect of site to vary with duration. These results indicate that the effect of site was not constant over time. In particular, children at the Demonstration were 108% more likely to be discharged during the first two weeks of the admission. Individuals at the Demonstration were 38% more likely to be discharged between the 14th and 30th day of the admission. After 30 days, however, individuals at the Demonstration were less likely to be

discharged. This was true through the first 60 days of an admission; at that point, the effect of site flipped again.

4. Site-specific analyses suggest that the determinants of length of stay differ under the continuum of care from those under conventional fee-for-service insurance. The underlying theory, however, really offers few specifics as to how these relationships should change, and so the results are difficult to interpret. The continuum-of-care philosophy seems to imply that the relationship between length of stay and individual characteristics should be stronger, but this does not appear to be the case.

Discussion

Our main finding is that the continuum of care reduces length of stay but that the relationship is complex. One explanation for the evolving effect of site on length of stay is that the effect represents a combination of two effects: the effect of the continuum-of-care per se, and that of differences in cost-sharing. These figures suggest that case managers and treatment teams may have moved individuals out of inpatient facilities fairly quickly whenever possible. Individuals for whom intermediate services were judged inappropriate, however, remained hospitalized for long periods of time—longer, in fact, than they would have under CHAMPUS. The absence of parental cost-sharing at the Demonstration makes this especially plausible. While the Demonstration was under some pressure to control costs (see Foster, Summerfelt, and Saunders, 1996), it is unclear if those pressures affected when an individual was discharged from an inpatient facility once admitted.

In conclusion, these results highlight the need for future empirical and conceptual research. Foremost is the need for research on the proper role of cost-sharing under a continuum of care. While eliminating cost-sharing may improve access, it also may have

unintended consequences, such as unduly extending length of stay for individuals who are not moved quickly into intermediate services. Added research is also needed on the nature of 'individualized' care—in particular, on how length of stay might be tailored to individual characteristics and what those characteristics should be. This requires an integration of research on the timing of services with that on the dose-response effectiveness of those services.

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A Self Regulating Service Delivery System for Children and Youth at Risk

Introduction

This summary outlines a conceptual model of a system for the delivery of services to children and youth at risk. In this discussion, *children and youth at risk* refers both to children and youth receiving services for mental, emotional or behavioral problems and to those at risk of not maturing into healthy well functioning adults.

In Canada, these children and youth receive services administered by multiple provincial government departments and sub branches (typically mental health, child welfare, young offender, drug dependency and special educational services) through either non government organizations (NGOs) or civil service agencies. In the United States service delivery has further complications of multiple levels of government administration, for-profit service delivery organizations, foundations and a large private practice sector.

There are many difficulties created by the present methods of service delivery which have been documented in both Canada and the United States. Among them are:

- the observations that children do not come as neatly divided as government departments;
- there is little knowledge of whether service provision is providing outcomes of benefit either to the consumers or society;
- there is little incentive for good outcomes;
- with a large number of competing demands on service organizations there is the existence of apparently perverse incentives mitigating against good care for children and youth;

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- there is a constant struggle to find money and balance for prevention versus clinical and one-on-one services;
- rarely is there an executive component in the system that can command coherent, coordinated and comprehensive care;
- governments and organizations are frequently part of the problem with their own multiple levels, separations of power and authority and attempts to micro manage the service delivery organizations; and,
- for the most part, service delivery is not a true system.

Self Regulating Service Delivery System: Components

The self regulating service delivery system has the potential to address these fundamental difficulties in addition to bringing other benefits.

Self regulating service delivery is a true system of service delivery requiring four components and which functions automatically. Once set in motion, this system constantly seeks ever better outcomes for children and youth at risk.

Component One: Well-being & Functioning as Outcomes

The model assumes that society desires all children and youth to achieve their maximum potential to develop into healthy, well functioning and productive adults. This assumption is key to the first component. If the desire is for healthy well functioning adults, then that is the product that must be measured.

Component one at the start of the system is a measure of product (outcome) attainment. Measures must be made of carefully chosen indicators reflecting some aspect of the status of well being and functioning of children and youth in at least two

domains. Those who use the services for desired benefit, a *Consumer Benefits* domain and those children and youth who do not use formal services but reflect some aspect of the status of children and youth on the way to adulthood, a *Population Benefits* domain. In the latter domain, the presumed goals would be to reduce disabilities and to maximize assets.

Examples of Consumer Benefits indicators include:

- Rate of recidivism for young offenders
- Rate of relapse on follow up for drug dependency service
- Five year follow up on children identified under age 9 with severe disruptive behavior disorder and 2 major risk factors for further problem development
- Three year follow up on adolescent sex offenders
- Level of satisfaction and level of functioning on one year follow up from mental health services

Examples of Population Benefits indicators include:

- rate of young offenders
- rate of child abuse (sexual, physical)
- rate of drug abuse
- school grade completion rates
- quality of life changes
- successful phase transitions to: healthy babies, school, teens, work

Indicators must be sensitive to temporal and regional variations and measured at regular intervals. Without indicators of the outcomes for the consumers of service and the status of well being of the general population of children and youth, no delivery system can claim it fully knows the full purpose of its functioning and whether it ever attains its desired purpose. Healthy children and youth is the desired product and if no measurements are taken, there is no knowledge of whether the product is being produced.

Self Regulating Service Delivery System

Component Two: Feedback

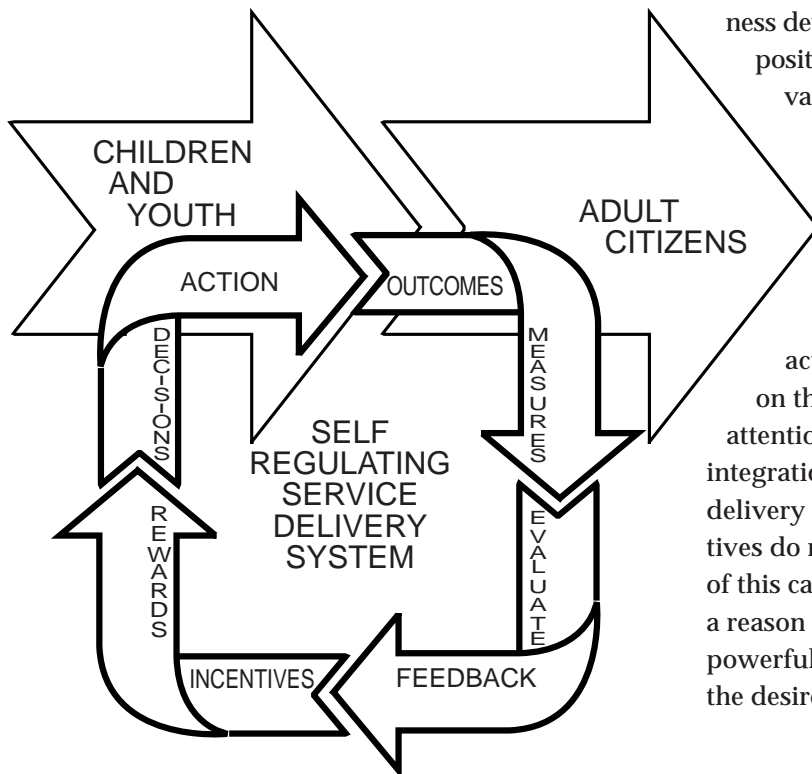
The second component is feedback. All the product measurements must be evaluated and condensed into a concise and useable format to be provided to all in a province or state with an interest in children and youth. One could develop a *Child and Family Well Being Index* as a summation measure and produce a regular report, e.g., *Annual Report on the Well Being of Children and Families for the Province of Nova Scotia, 1997*.

Component Three: Incentive

The third component is incentives and rewards. This is the motivational component or driving force of the system. If healthy children and families are a product (outcome), this is the profit. For most jurisdictions, not only is it not known if the product is produced, there is no incentive or reward for it. (This should not be confused with financial profit of organizations who sell a number of services for contracted fees in order to make money, as a

business). Incentives and rewards consists of the simplification of all influences on organizational functioning and the devising of additional powerful incentives to keep organizational functioning specifically directed on the improvement of outcomes for children and youth. This action reduces the various factors that deflect an organization's purpose from its stated goals and enhances the focus on beneficial outcomes. The more powerful the incentives and the more they are attached to specific outcomes, the more likely those outcomes will be sought and produced.

For example, the organizations in a sub jurisdiction of a province or state either performing the best or making the fastest improvements from baseline could be awarded one million dollars (no strings attached) at a state dinner with the head of state and cabinet demonstrating their support for children and families (always a good cause for politicians). An award valued as the local 'Nobel Prize' would bring the media and be good advertising for business development in communities. Properly used positive public recognition and money are valuable reinforcers for organizations and administrators.



Component Four: Capacity

The fourth and last necessary component is the capacity in a region to make service delivery decisions and take actions that can keep organizations focused on the outcomes for children and youth. Much attention has been given to this in the services integration literature. In self regulating service delivery system, powerful indicators and incentives do not command but do induce the existence of this capacity in a region. Inducing self action for a reason (incentives and rewards) is a far more powerful motivator and inducer of creativity than the desires of governments or funding bodies.

System Self Regulation

The whole system functions on a regular cycle. The outcome indicators are measured and produced. The process of feeding back the indicators could be accompanied by the application of the rewards (which function as incentives for the following cycle). The decision makers adjust system functioning to attempt improvements to gain better outcomes, and the incentives, for the next cycle.

The provincial or state government controls the system and simplifies its role. It sets the indicators and it applies the rewards. It sets the product and provides a profit to the sub jurisdiction producing superior products. It celebrates successes on a regular basis. Governments do not need to be as involved in the measurements of the process of production as they have been in the past, either through choosing to measure process rather than product or micro managing the organizations serving the regions.

Once set in motion, the model should be evaluated against other methods of service delivery by comparing outcomes. Healthy well functioning adults is the goal of service delivery and all models should be kept or evolved in relation to their ability to measure and improve this social goal.

Potential benefits of self regulating are also paralleled by the many structural problems of present service delivery. The following list will cover benefits from both perspectives, problems of the present and benefits of self regulating.

1. The main focus of functioning and attention is on outcomes for children and youth over all other influences on service delivery.
2. What gets counted is what gets done and here, a government counts and purchases a product of beneficial outcomes instead of a process of how the service delivery details are working.

3. Organizations are induced to develop cooperative action in the interests of obtaining the desired outcomes and incentives.
4. The incentives attached to outcomes can induce efficiency in work and reduction of areas of duplication and overlap within a service delivery region.
5. Governments can demonstrate and be perceived as having a strong interest in the well being of children and families.
6. Quality is both noticed and rewarded.
7. Judicious use of indicators and/ or incentives can accentuate the need for effective action in specific areas, e.g. five year follow ups results on children under 8 years with severe disruptive behavioral disorders.
8. There is a potential for competition to develop between regions and this can be both friendly and induce efficiency.
9. Relevant and accurate data collection is both necessary, monitored and induced as a natural functioning of the system
10. Public recognition of children's issues increases.
11. Incentives can be used in such a way as to boost the morale of the front line service providers.
12. The best principles of business are incorporated into service delivery: a quality product, efficiency, competition and rewards/ incentives for the work done.
13. A normal and well studied principle of importance in human motivation, incentives and rewards, becomes incorporated into healthy service delivery functioning.

The overall benefit is the creation of a self perpetuating, self regulating system set in action to achieve ever improved outcomes for children and youth in a province. If this is not what service delivery is about, then what are we doing?

CASSP: Comparing Theory with Reality

Introduction

A recent review of prevalence studies concluded that 9-19% of children have severe emotional disorders (SED) and that the numbers are increasing (Friedman, Kutash, & Duchnowski, 1996). Despite the extent of this problem, it is estimated that only one-half of all children who have mental or emotional disorders receive any services and that far fewer receive services appropriate to their needs (Knitzer, 1982; National Advisory Mental Health Council, 1990; Saxe, Cross, & Silverman, 1988). One of the reasons for these access problems is the fragmented nature of our service systems.

For over sixty years both policy makers and practitioners have been concerned with these problems of fragmented, uncoordinated service delivery systems (Bolland & Wilson, 1994; Friesen & Briggs, 1995; Saxe, Cross, Silverman, & Batchelor, 1987). Beginning with the recognition that the needs of children with SED are complex and often require services from a number of different agencies and systems, there is now considerable agreement about what constitutes an "ideal" system of care for children and families. Stroul and Friedman's (1986) Child and Adolescent Service System Program (CASSP) framework of services that are comprehensive, individualized, community-based, non-restrictive and integrated has served as the foundation for system building in many states. Yet, despite these efforts, significant coordination and service delivery problems persisted, prompting the Robert Wood Johnson Foundation (RWJ) to establish the Mental Health Services

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Program for Youth (MHSPY: Beachler, 1990; Cole, 1996; Saxe, Cross, Lovas, & Gardner, 1995). The Oregon Partners Project (OPP) in Multnomah County, Portland, Oregon was one of these demonstration programs.

The purpose of the Children's Mental Health Network Project is to examine what happened to the system of care when the RWJ funds terminated, in particular to study the interorganizational relationships among child-serving agencies in Multnomah County. We are interested in describing the agency networks from both the program and direct service worker viewpoints over time to evaluate the effects of service systems changes on network characteristics (e.g., capitation instituted in April 1, 1996).

Method

Network analysis was used to analyze the interorganizational relationships. Network analysis is the first research method capable of empirically measuring the interaction of organizations in a system and it can also characterize the structure of a network and the interaction of its components. Prior to network analysis it was only possible to look at individual organizational relationships, but we are now able to measure characteristics of a whole system, such as the density of interaction among its members and the degree to which the interaction is centralized around a single agency. Network analysis can also (a) describe changes in a system over time; (b) compare multiple systems; (c) describe the level of system integration and coordination; (d) determine "cracks" in the system; (e) identify areas where system interaction can be improved; (f) analyze organizational attributes to explain the nature of system interaction; and (g) evaluate the impact of a system intervention (e.g., a coordinating agency).

The first task of the project was to bound the network; that is to identify the agencies in the

children's mental health network. This was accomplished by interviewing key informants at the county mental health authority and attending meetings of provider agencies. As a result over 50 organizations were identified to participate in the study. The same method was used to identify respondents who were most knowledgeable about each agency's interorganizational relationships. These respondents provided data for the agency as a whole and were encouraged to consult with other organizational personnel when necessary.

The direct service workers were identified by the agency respondents as being individuals who work (a) directly with children with SED and (b) with other agencies on behalf of those children. The direct service respondents were asked to provide data based on their own personal experience with other agencies.

Three annual waves of data were collected from the more than 50 agencies and programs in mental health, child welfare, education, juvenile justice and other county programs (Waves 1 and 2 are presented here). The agency administrators responded to an interview, which gathered information regarding agency/program characteristics and their views of the overall service system, and a questionnaire, which assessed their agency's/program's interorganizational activities such as client referral and information exchange. An abbreviated version of the questionnaire was used for the collection of the direct service data. Data collection was complicated by the requirement of a 100% response rate for network analysis software.

The network structure was evaluated by creating groups based on direct ties using network software *KliqueFinder*, developed by Ken Frank (1995). The groups are determined by an optimum solution maximizing within group ties relative to between group ties. Multi-dimensional scaling is

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then used to plot the clusters and the within and between group ties. To better understand whether this network formed a system of care, we also grouped the agencies according to the CASSP framework (Stroul & Friedman, 1986). However, we subdivided the mental health sector into outpatient, day treatment, residential, and inpatient services. The vocational and health sectors were not represented by agencies included in our study.

Finally, we examined the prominence of The Oregon Partners Project (OPP) in the network and the degree to which it was connected to all of the system of care sectors. OPP involved pooled funding from the state and local mental health authorities, child welfare, and two public school systems to serve 150 the neediest children with SED. OPP received a capitated monthly rate for each child which allowed it to use flexible funds for services not ordinarily paid for by Medicaid. The program was responsible for case coordination and for convening multi-agency teams involving all of the agencies, family members and other individuals important in the child's life. The case coordinators also were responsible for authorizing funds under the capitation rate.

Results

The concept of *information exchange* was chosen to examine the system of care for this presentation. At baseline, just before the RWJ funds were terminated, there was a high degree of information exchange throughout the network. All of the CASSP sectors were connected to each other, resulting in no "cracks" in the system (see Figure 1). In addition, most of the programs across the different sectors were connected (see Figure 1). Programs found within the same sector were all well-connected, except for the programs within the inpatient and educational sectors (see Figure 2).

Although the OPP was maintained after the RWJ funds were discontinued, it was integrated into other county programs and served a larger number of children than it had in the demonstration. Since OPP no longer functioned as a single, coordinating agency, we expected that there might be some deterioration of connections within the network. The results reveal a trend in that direction; however, considerable information exchange throughout the network was still evident one year later. At Wave 2, the education sector was not connected with all of the other sectors; that is, the one "crack" in the network (see Figure 3). Most of the individual programs across different sectors were still connected (see Figure 3). Programs within the same sectors also remained well-connected; however, the programs within the residential and inpatient sectors were not connected at Wave 2 (see Figure 4). Looking more closely at the longitudinal changes in the network of information exchange, approximately the same number of ties emerged as dissolved among the agencies, with the majority of ties remaining stable. However, many more ties dissolved than emerged between education and the other sectors. Overall, at both time points, the network was not very centralized (.46 at Wave 1; .17 at Wave 2) and could be characterized as having moderate density (.46 at Wave 1; .43 at Wave 2).

Both centralization and density are calculated using the UCINET IV network software program (Borgatti, Everett & Freeman, 1992). Centralization measures the extent to which network interaction is centered around a single agency and has a value from 0 (low centralization) to 1 (maximum centralization). Density is the proportion of actual ties to total possible ties and also has a value from 0 to 1. A density of 1 represents a network in which every agency is connected to every other agency while 0 would be a network where no agencies are connected.

In the Figures below, the circles represent the CASSP sectors:

- A= MH outpatient programs
- B=MH day treatment programs
- C=MH residential programs
- D=MH inpatient programs
- E=social services
- F=special education programs
- G=operational services
- H=OPP

Broken lines represent between cluster ties; solid lines represent within cluster ties. The numbers refer to individual agencies. Within the Multiple Dimensional Scaling grid, the agencies and clusters are plotted to represent the relative connectedness to each other; that is, agencies or clusters that are closer together have stronger ties than those that are further apart. Neither the scale nor the axes are useful for substantive interpretation.

Figure 1
Agency Information Exchange – Time 1

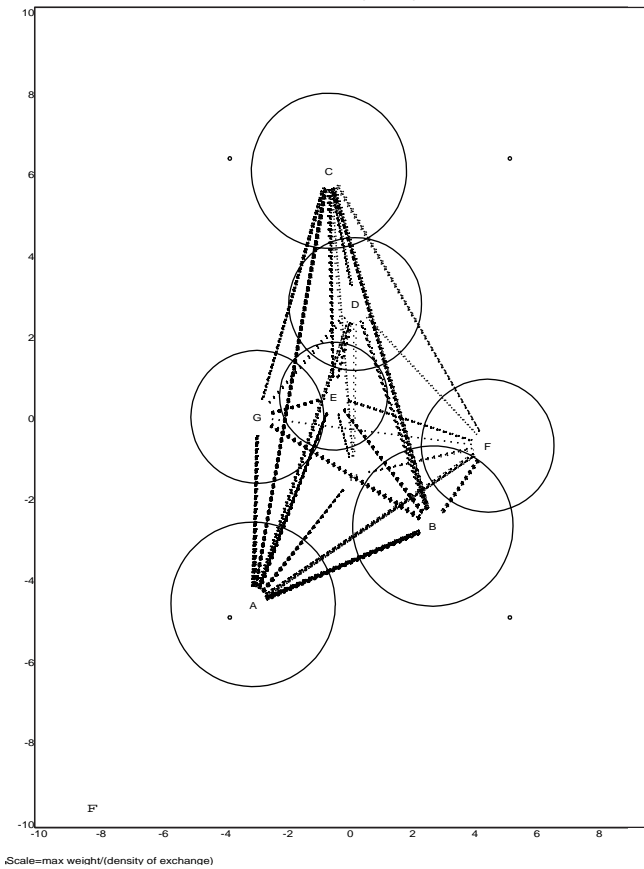
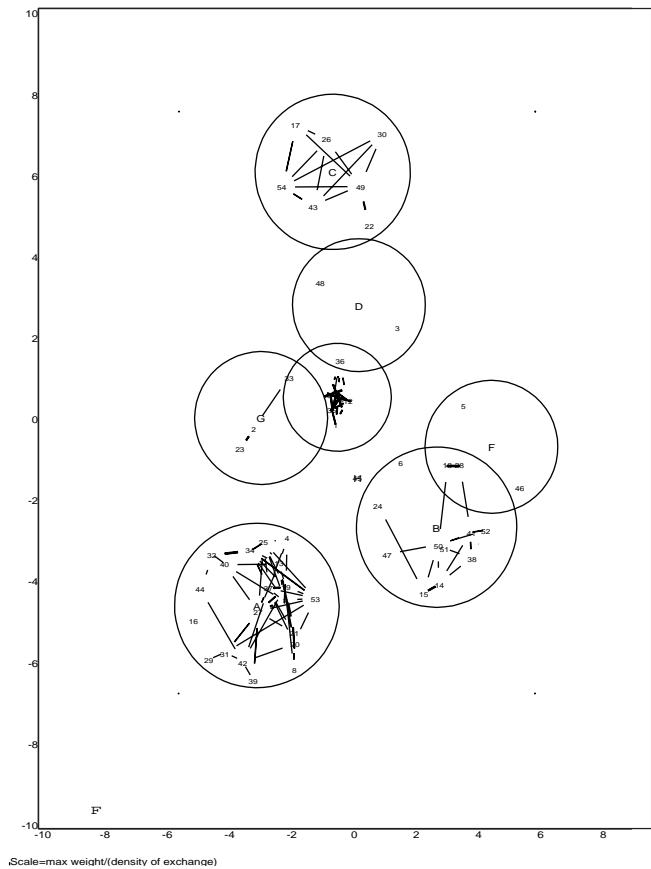


Figure 2
Agency Information Exchange – Time 1



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We were also interested in the importance of OPP in the network since it was designed to be a central coordinating agency. At baseline OPP had clearly established itself as a central agency. It was the fifth most prominent agency with a prominence score only slightly lower than three branch offices of child welfare and the special education program of the Portland Public Schools. It maintained this position at Wave 2, with all four branches of child

welfare being the most prominent. Furthermore, at both waves, OPP was connected to all of the sectors and to most of the other agencies in the network.

Figure 3
Agency Information Exchange – Time 2

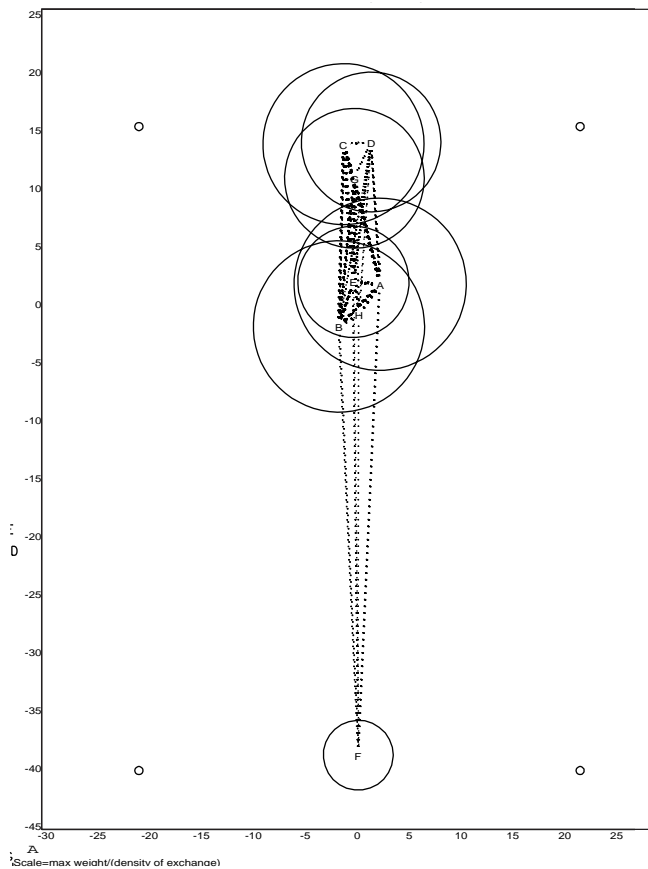
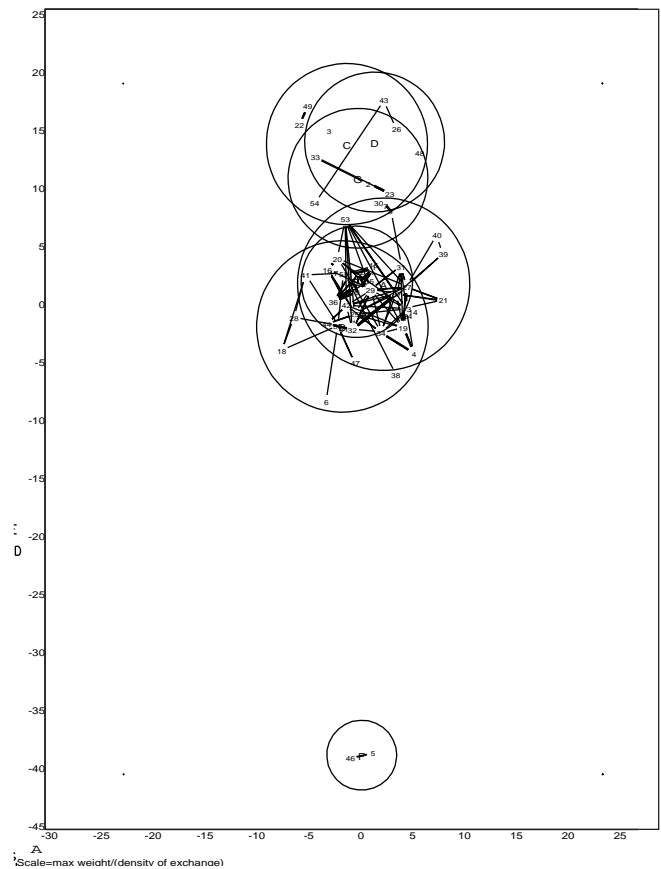


Figure 4
Agency Information Exchange – Time 2



Discussion

This study revealed that interventions such as OPP can influence the overall level of coordination in a network: the level of information exchange was somewhat lower one year after the RWJ funds were terminated. Interestingly, this study also demonstrated that information exchange among agencies is quite extensive, contradicting the common belief that the children's mental health networks are fragmented. How can this be if the problems of fragmentation continue to be reported? It seems that we may be looking at the wrong level. At the system level the network has the capacity to make connections, but it does not operate perfectly at the case level. Consequently, we may need to concentrate less on systems reform and more on the pragmatics of ongoing coordination, such as joint agency training, the appointment of liaisons between agencies, and standardized referral and information exchange procedures. Perhaps most importantly, if workers are given neither the time nor incentives to become involved in inter-agency coordination it cannot be expected to happen.

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Symposium: Using Service System Assessment Data to Inform Mental Health Policy

Introduction

Since 1992, with the support of several federal grants, the Rhode Island Department of Children, Youth, and Families (DCYF) has been engaged in an active partnership with The Consultation Center of Yale University to provide systematic quantitative and qualitative evaluation of an emerging system of care for children with serious emotional and behavioral disorders. In 1990, the Department for Children, Youth and Families received a National Institutes of Mental Health (NIMH) State Level System Development Grant (CASSP) and, in 1994, the Department received a Child and Family Service System Development Grant from the Center for Mental Health Services (CMHS) to plan and implement a comprehensive system of care for children and youth with serious emotional and behavioral problems. This initiative is called Project REACH Rhode Island. These grants sustained a collaboration between state policy makers and evaluators to provide reliable information about progress, program development, and efficacious interventions to NIMH and CMHS; equally important perhaps, the sustained collaboration between state policy makers and evaluators drew a substantial cross section of the community into shaping the system of care.

This symposium summary is comprised of three sections: 1) the first summary describes the development of the evaluation plan and the processes that have occurred across the state as the evaluation has unfolded; 2) the second highlights some of the data

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and discusses ways different types of data can be useful to state policy makers; and 3) the final summary will underscore the utility of evaluation data in making decisions related to systems growth and development. A final discussion section provides an overview of the evolution of the evaluation from a policy maker's perspective and discusses various uses of evaluation data in developing state policy. Using the evaluation in Rhode Island as a case study, this symposium presented a comprehensive evaluation of a system of care, the types of data such an evaluation can produce, and the utility of this data for service system development and policy decisions.

Creating the Foundations for Evaluating a System of Care

Jacob Kraemer Tebes, Ph.D.

Background

During the Spring of 1992, The Rhode Island Department of Children, Youth and Families (DCYF) in collaboration with The Consultation Center of Yale University School of Medicine began to evaluate the system of care for children with severe emotional and behavioral disorders and their families. The purpose of this evaluation was to provide the state with a more thorough understanding of the system of care and a comprehensive picture of the children and families being served. This evaluation was made possible by a CASSP grant that was awarded to DCYF. The initial evaluation was conducted over a two year period and the structures that were implemented at that time are still in place today.

In 1992, The Consultation Center performed an initial assessment of the problems and resources of Rhode Island's children's mental health system. Resources included the DCYF's commitment to system improvement, the legacy of a highly regarded adult mental health system, the availability of CASSP funding through NIMH, a state-wide CASSP

Advisory Group prepared to take leadership in reform efforts, and a belief that evaluation data could inform public policy. Significant barriers were also noted: there was no state-wide management information system or even a common protocol for gathering information. Neither an unduplicated count of children and youth receiving or needing services, nor the specific service needs of children in out of home placements, returning from such placements, or at risk for them was available. Finally, the very high costs of out of home placements could not be linked to positive outcomes for children and youth and their families. Initial evaluation objectives included generating sound information about the number and service needs of Rhode Island's children and youth with severe emotional and behavioral disorders, identifying capacities and barriers to serving children effectively, and creating a process to track needs, barriers, services, outcomes, and key characteristics for children and youth eligible for services.

Data Collection

The evaluation was comprehensive and included data from four sources: 1) CASSP case reviews from each of Rhode Island's eight catchment areas; 2) telephone surveys with representatives from agencies and organizations involved in the children's mental health service system; 3) focus groups with providers and parents within each catchment area; and, 4) review and analysis of archival state records and reports.

CASSP case review data were compiled on the *Resource and Outcome Data Form*, which was developed by a task force of providers and parents employed by the system of care with consultation from The Consultation Center evaluation staff. The measure includes sections for demographics, participants involved in developing the CASSP plan, agency and funding sources, services recommended and received, barriers to the implementation

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of services, and various outcome measures. In addition to being a vehicle for data collection, CASSP case review teams across the state used the form to provide a structure for the case review meetings. To date, more than 700 Resource and Outcome Data Forms have been completed by the case review teams.

Telephone surveys were conducted with 74 agencies that were involved in the case review process and/or receive funding from DCYF. Information was gathered from agencies about the types of services provided by the agency, the demographics of the population served, referral information (incoming and outgoing referrals), and the respondents' satisfaction with referral options. This survey yielded vital information about the level of inter-agency collaboration occurring across the state, and the degree to which agencies referred children and families to other facilities for additional services.

Focus groups were held with the Local Coordinating Council (LCC) in each of the eight catchment areas. The LCC provides oversight for the system of care for children's mental health within the local catchment area and is comprised of providers and parents. In addition, focus groups were conducted with two groups of parents primarily from the African American and Latino populations. The evaluators targeted these two groups as they were underserved by the mental health system. The focus groups provided important information to help understand how the system functions as a whole, especially in determining where there are gaps in services or resources. Topics discussed included access to the system, service system barriers, positive aspects of the service system, and recommendations for improvements. Focus group data were especially useful when combined with service system data available from state and local data banks.

Several existing data sets were obtained for purposes of characterizing the sample of children at-risk in the state, and for comparing them to the total population of children in Rhode Island. These data provided information on the number of children at-risk across the state and the gender, ethnic, and socioeconomic characteristics of these children. A comparison of these data with the demographic data of the children being served enabled the evaluators to identify which populations were not adequately being served by the system of care.

This comprehensive service system evaluation provided DCYF with 43 major findings in five areas: Mental Health Needs of Rhode Island's Children; Child Mental Health Service Agencies and Service Networks; the CASSP Review Process; Major Barriers to Services; and CASSP Outcomes and Service System Impact. In addition, the evaluators provided DCYF with 13 different policy and planning considerations in each of the five areas listed above. State policy makers have used the data and recommendations provided in this initial report to make decisions about resource allocation, systems level policies, and to help obtain additional resources to continue to develop the system of care.

The Impact of Multi-Agency Collaboration on the Service Delivery System

Joy S. Kaufman, Ph.D. & Jacob Kraemer Tebes, Ph.D.

Evaluation Overview

During the past five years Rhode Island has been involved in a comprehensive evaluation of the system of care for children with severe emotional and behavioral disorders and their families. The evaluation began with a two year view of the CASSP system of care that included case review data, surveys of agencies providing services to this population, focus groups with providers and parents, and archival state and local data. Collection of case review and outcome data continued over the next two years, along with the development of additional data collection mechanisms that were standardized across the state. Over the past year, Project REACH Rhode Island has been collecting the comprehensive descriptive, outcome, and satisfaction data that are part of the Center for Mental Health Services (CMHS) Comprehensive Community Health Services for Children and their Families Program. Finally, the state has recently completed an in-depth look at the development of the system of care derived from focus groups with providers and parents in each of the eight catchment areas, structured interviews with program directors and fiscal staff, and reviews of case records and MIS records of utilization of services. This recent evaluation of the systems of care at each of the eight local sites will be replicated on a yearly basis.

What the Data Show

To date, case review data have been collected by the state on over 600 initial CASSP case review meetings. Referral to the Multi-Agency Case Review Teams have come from a variety of sources including mental health agencies and hospitals (59.2%), schools (19.0%), parents (14.3%), Child Welfare (12.6%), and corrections (2.7%). As Table 1 demonstrates, the reasons for referral have varied but focused primarily on assistance with systems issues such as the need to initiate services or coordinate services for youth and families, and child-specific issues, such as severe behavior disorders and the youth being at risk for out of home placement.

Prior to 1992, Rhode Island did not have a clear picture of who was being served by the system of care. We now know that two-thirds of the youth being served are male. The majority of the youth (84.7%) are between the ages of 6 and 17. Rhode Island has been successful over the past five years in serving a more ethnically diverse population, and now the ethnicity of those served matches the ethnicity of the population residing in Rhode Island.

Table 1
Primary Reasons Given for Referral
to the Multi-Agency Case Review Team
(N= 247)

Reason for Referral	Frequency	Percentage
Hospital or residential discharge planning	33	13.4
Risk for out of home placement	105	42.5
Need to initiate appropriate services	134	54.3
Need for more coordinated services	128	51.8
Severe behavior problems	122	49.4
Educational issues	72	29.1
Juvenile justice issues	25	10.1
Transition to adult services	9	3.6
Other	0	--

Note: Percentages may total to more than 100 as more than one reason for referral could have been listed.

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The psychiatric characteristics of the youth being served have remained consistent over the past five years. Scores from the Global Assessment of Functioning Scale for Children (CGAS) indicate that the majority of the youth (82%) have a clear or severe interference in functioning (Schaffer, et al, 1983). As Table 2 indicates, 66% of the youth have some type of Disruptive Behavior Disorder, 25% have a Mood Disorder, 17% an Anxiety Disorder

(most often Post traumatic Stress Disorder) and another 16% a Developmental Disorder (most often a Pervasive Developmental Disorder).

The CMHS initiative enabled the state to include more comprehensive outcome data, satisfaction data, and descriptive data in the assessment of the system of care. Some of the most enlightening data have included information about youth and

Table 2
Psychiatric Characteristics of Children Referred to the Multi-Agency Case Review Teams (N= 254)

		Frequency	Percentage ^a
Level of Functioning (C-GAS Scores)^b	0 to 39	19	9.9
	40 to 64	138	71.9
	65 to 100	35	13.8
Axis I Diagnoses	Adjustment Disorders	30	11.8
	Anxiety Disorders	44	17.3
	Disruptive Behavior Disorders	162	63.8
	Dissociative Disorder	1	0.4
	Eating Disorders	4	1.6
	Elimination Disorders	6	2.4
	Impulse Control Disorders	4	1.6
	Learning Disorders	17	6.7
	Mood Disorders	66	26.0
	Psychotic Disorders	5	2.0
	Sex Disorders	2	0.8
	Substance Use Disorders	9	3.5
	Tic Disorders	10	3.9
V Codes	10	3.9	
Axis II Diagnoses	Developmental Disorders	18	7.1
	Personality Disorders	12	4.7
	Pervasive Developmental Disorders	22	8.7

^a Percentage may total to more than 100 as children were often given more than one diagnosis.

^b No C-GAS Score reported for 62 children.

family risk factors and more comprehensive information about the families involved in the system of care. It is now known that 42% percent of the families involved with the system of care report incomes at or below the Health and Human Service (HHS) Poverty Guidelines for 1996 (\$15,600 for a family of four) and that 61% report incomes at 150% of the HHS Poverty Guidelines— a figure often used to establish eligibility for entitlements. In 40% of the families the youth's mother has full custody and in 33% both parents have custody. About half of the youth involved in the system of care live in a home with two or more adults and the majority of the youth live in homes with other children (typically biological or step siblings). This information helped initiate discussions about the impact of poverty on the families served by the system or care, the need for additional respite services—especially in light of the fact that half of the youth live in a home with just one adult—and the necessity of looking at the needs of siblings and step-siblings of youth served by the system of care.

The data presented in Table 3 validated in a striking way some of the anecdotal information that staff working with the families were reporting (important to note is that these data are self-report findings and therefore the actual percentages may be higher). More than 33% of the youth have previously been hospitalized in a psychiatric facility; 25% have a history of being physically abused; 20% a history of running away, of suicide attempts, and of drug or alcohol abuse. When we take into account that the average age of a young person in the system of care is 11.5 years, these data are even more striking. When looking at some of the difficulties encountered by the families of these youth—50% have a history of substance abuse within the family; 50% a history of family violence; and nearly 50% a history of psychiatric disorders within the family—the concept of wrapping services around the entire

family becomes even more imperative. The presentation of this information, aggregated at the level of the entire state and then broken out by the eight local sites, prompted the Project Director to work more closely with the agencies providing services to families with issues of domestic violence and substance abuse and to bring them in as full partners in the system of care.

Table 4 highlights some of the ways that the CASSP process has been helpful to the youth and families served by the system of care. Being involved in a multi agency case review process has averted out of home placement almost 66% of the time. When placement is required, youth are more often than not being kept in their communities and they are also staying in local schools. Finally, involvement in the case review process is helping youth to remain in school.

Impact

The consistent feedback of evaluation data to the community of providers and consumers is the hallmark of the Project REACH Rhode Island evaluation. This information, combined with the feedback obtained during the yearly qualitative evaluations conducted at the local sites, has enabled the State and the local sites to make decisions about resource allocation, determine what services are missing from the array available to youth and families, and has validated the creative treatment planning that has gone on at the local level since the beginning of CASSP. The data have also provided guidance for policy makers in determining the direction that the development of the system of care should take and the steps that are necessary to get there.

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Table 3
Child and Family Risk Factors for Children Referred to
the Multi-Agency Case Review Teams (N= 254)

		Frequency	Percentage
Child Risk Factors	Previous psychiatric hospitalization	31	35.8
	History of physical abuse	67	26.4
	History of sexual abuse	41	16.1
	History of running away	53	20.9
	History of a suicide attempt	47	18.5
	History of drug or alcohol use	54	21.3
	History of being sexually abusive	23	9.1
Family Risk Factors	Past psychiatric hospitalization for parent/caregiver	49	19.3
	Past felony conviction of parent/caregiver	32	12.6
	History of sibling being institutionalized (e.g., residential facility)	44	17.3
	History of siblings being placed in foster care	35	13.8
	History of psychiatric problems within the family	113	44.5
	History of family violence	125	49.2
	History of substance abuse in the family	130	51.2

Table 4
Percentage of Children who Averted Risk after Implementation of CASSP Plan

Risk Factors for Poor Service Outcomes	Number of All Children at Risk at Initial Case Conference	Number of Children who Averted Risk Because of Implementation of CASSP Plan	Percentage of Children Who Averted Risk Factor Because of Implementation of CASSP Plan
Dissolution of family	165	99	60.0
Placement in more restrictive educational setting in district	70	27	38.6
Placement in more restrictive educational setting out of district	97	52	53.6
School dropout	60	32	53.3
Placement out of home	217	134	61.8
Placement out of community	178	100	56.2
Placement in juvenile justice facility	54	27	50.0
Greater financial liability	148	76	51.4
TOTAL	989	547	55.3

Using Evaluation Data to Inform State-Level Policy Decisions

Susan Bowler, Ph.D.

Measuring Progress

The availability of evaluation data has provided the State of Rhode Island with information that is vital to further the process of systems development. From the initial CASSP findings to the recent site-specific process data, state administrators have used this information to inform local and state level funding decisions and policy. As with many localities, prior to the 1980s, Rhode Island was providing a patchwork of services to families who have children diagnosed with severe emotional and behavioral disorders. There was little systematic communication among service providers and families had to use their own initiative to learn of and access available services for their children. One result of this loosely coordinated system was that children were too often placed out of their homes and out of their communities. In addition, the state did not have a comprehensive picture of the children and families being served by the system of care or a thorough understanding of the system that existed.

The comprehensive evaluation that began in the Spring of 1992 gave the Department of Children, Youth and Families (DCYF) data that were instrumental in enhancing systems growth and development. At the community level, Local Coordinating Councils brought parents, mental health and social service agencies, and other community resources together to provide more collaborative services for children and families and to collect better information on outcomes of collaborative approaches. This evaluation partnership was truly informative for the system of care, because it:

- provided regular opportunities to collect, analyze, and feed information from and to all system participants in a timely and manageable fashion;
- assessed system strengths and barriers to child and family service;
- identified areas of consensus and disagreement among system participants—youth, parents, mental health professionals, educators, and community leaders;
- afforded participants in the system opportunities to craft common agendas in system building; and
- guided state and local policy makers in planning, contracting, and program development.

During the evaluation conducted between 1992 and 1994, parents, professionals in public and private agencies, and community leaders identified several action steps through this process that refined and guided state policy. The plan for developing a comprehensive system through the CMHS grant was shaped in significant part by these recommendations. Grant funds and DCYF funds were directed towards service areas identified as both underdeveloped and essential: respite, recreational services, intensive community and home based services, and highly flexible “wraparound funds” were dedicated to each mental health catchment area. While parents and professionals told evaluators that CASSP had enhanced collaboration among parents and providers and between the private and public sector, they also said that the staffing at the local level was not adequate. Increased staffing to build an infrastructure to support collaboration through Local Coordinating Councils in each area was also a direct result of evaluation findings. However, both parents and professionals also told evaluators that increased funding alone would not allow the state to fully implement CASSP principles; creating family centered staffing patterns was also necessary. Particularly significant in this regard was funding of a Family Service Coordinator’s position in each

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Local Coordinating Council to enhance family involvement and ownership in this process. The Family Service Coordinators, who are themselves parents of children with severe emotional and behavioral problems, work directly with families to build confidence; advocate for children; and ensure that family needs, strengths, and insights are driving the multi-agency team planning process.

Process Evaluation Method

In the fall of 1996, the state conducted an extensive round of site visits to assess progress in the developing system of care. This qualitative study aimed to create a framework at the state and local levels for intensified strategic planning for the next stage of development and for the institutionalization of the system of care. The evaluation also sought to perform a comparative analysis of eight local systems of care within the state to identify promising practices and common needs and to use findings to help the state and local systems articulate their value to important decision makers. The site review team included the Director and Evaluator of Project REACH Rhode Island, the DCYF liaison to the Local Coordinating Council and a DCYF supervisor from the Child Welfare Region, a representative of the Parent Support Network, a Federation of Families chapter, and a state expert on special education from the Rhode Island Technical Assistance Project.

Site visits had a dual focus: (a) how the local system of care interacts with each child and family; and (b) how the Local Coordinating Councils interact with the broader community to increase formal and informal supports for children and families. The team spent a full day in each catchment area conducting focus groups with a wide range of participants including parents, the Local Coordinating Council, and clinical and fiscal staff of the local lead agency (generally the mental health center). The team also conducted case record reviews and collected a

standardized body of information about levels and quality of participation by key decision makers in education, mental health, social service, recreation and income maintenance and support.

Results

The results were simultaneously encouraging and challenging to state policy makers and participants in the emerging system of care. The process has already been truly informative for the system of care, as each Local Coordinating Council used the discussions that occurred during the site visits for action planning around strengthening and refining the responses to individual children and families and widening the circle of professional, family, and community involvement in the system of care. Intensive strategic planning at both the local and state levels has energized local systems by identifying powerful strengths, channeling energy into overcoming specific local barriers, and encouraging cross site discussion and planning. Selected findings that follow highlight areas of accomplishment as well as identifying next steps for Rhode Island communities.

Family-centered processes. The local sites have adopted a family driven model of outreach and practice; parent focus groups in each of the catchment areas were profoundly enthusiastic about the openness of the local systems to families and described their experiences in terms that reflected CASSP values. The Family Service Coordinators were perceived as keys to the growing family driven-ness of the local systems and Project REACH Rhode Island was urged to increase their numbers. Nevertheless, families also told us that the sites have been less effective at drawing significant numbers of parents into policy making discussions of the Local Coordinating Councils. Families offered numerous suggestions to each site for further empowerment. Sites are presently weaving these insights into strategic plans for further development.

Cultural Competence. Success in enhancing cultural competence and cultural diversity in the local sites is reflected in recruiting diverse family members for services through outreach activities. In all areas, the number of children and youth of ethnic, linguistic, and racial minorities receiving services is representative of local demographics, which was not true five years ago. Diversity in staffing the Local Coordinating Councils is much greater than that of the traditional human service system. Nevertheless, important challenges remain, for example, service providers do not reflect the great diversity of the state's population and finding appropriate resources for all children remains problematic.

Multi-agency collaboration has grown dramatically over the last five years and is particularly striking in the Local Educational Authorities (LEAs). Every LEA has referred children to the Local Coordinating Councils and about one-third of referrals in the Fall of 1996 are coming from the LEAs. Concerns in this area pertain to both the unevenness in levels of individual school commitment and the fragility of many of these relationships. Relationships with many local systems are very susceptible to shocks; a particularly controversial case or the loss of a key school personality can freeze progress or actually set it back. Building more durable relationships is a goal for the future.

CASSP principles. A deep and genuine commitment to CASSP principles is articulated and reflected in the Local Coordinating Councils; a real consensus has formed around the need for family driven, culturally competent, flexible, individualized and responsive systems of care at the state and local levels.

Service system capacity. The service array at the local and state levels has expanded substantially with flexible funds available for individualizing service plans, better coordination between agencies working with children and families, and more creative use of existing resources such as Medicaid. However, reductions in other service systems, especially income maintenance services, are bringing families to the Local Coordinating Councils who previously would have received support elsewhere. Families presenting with basic food and shelter needs are increasing and local systems of care are worried about their capacity to meet these needs as other systems continue to contract.

The Rhode Island experience has outlined the potential usefulness of professional evaluation to state and local policy makers. Evaluation results that are focused on practical system needs, strengths and problems, and which are fed back to participants in a timely fashion in usable and intelligible increments can have significant impact in helping decision makers in the public and private sectors shape their agendas, develop resources and channel their energy.

Discussant's Comments

Kathryn B. Nicodemus, LICSW

Since 1990, the Rhode Island Department for Children, Youth, and Families (DCYF), with funding from the National Institute of Mental Health and the Center for Mental Health Services, has endeavored to develop a comprehensive, family centered, statewide system of care for children and youth with severe emotional and behavioral disturbances. This effort was undertaken in collaboration with public and private agencies providing mental health, educational, and social services at the state and local levels and with active participation from parent organizations and parents of the target population.

During this same period DCYF has engaged in an active partnership with The Consultation Center of Yale University to provide a systematic quantitative and qualitative evaluation of the emerging system of care. Access to data that are systematically collected and reported in a format that is accessible to a broad spectrum of stakeholders has had a significant impact on the development of policy and programs for mental health services to children and youth at both the community and state-wide levels. The evaluation process developed through this partnership supported the active participation of parents and family members in system development through family member participation in the development of data collection forms and processes, family members being employed as data collectors, and feedback that was provided by family members and youth during structured interviews and focus groups.

One example of the utilization of evaluation data provided by family members is the enhancement of the role of the Family Service Coordinators. Family Service Coordinators are parents of children who have severe emotional or behavioral difficulties and are currently or have in the past received

services through the system of care. The role of the Family Service Coordinator is to help families negotiate the system of care, advocate for family identified needs, and work with the local sites to promote family involvement in protocol and policy development. This role, viewed as one of the most successful components of the Rhode Island system of care, was initially a half time position in each of the local sites; however, feedback provided during the initial CASSP evaluation indicated that this was a vital role and the position was expanded to full time at each site. Subsequent feedback from family members provided during site visits held during Fall, 1996 again indicated that there was a need to further expand this service system component. With state support, the number of Family Service Coordinators will double before the end of 1997.

Data gathered by the team from The Consultation Center have also had a significant impact on the decision making of the legislative and executive branches of state government. In 1997, in substantial part because of these evaluation results, Rhode Island's state General Assembly became the first in the nation to consider institutionalizing CASSP principles. This was accomplished through the introduction of legislation designed to place decision making authority for high-end DCYF (child welfare, mental health, and juvenile justice) and educational placements in the hands of the local planning teams that are comprised of parents, community members, and multi-disciplinary professionals from a variety of community agencies. While the proposed legislation will more than likely be modified before passage, the data provided by the evaluation have convinced key legislators including the chairs of the General Assembly committees for Health, Education, and Welfare in both the House and Senate, of the need for education, child welfare, mental health, and juvenile justice systems to be collaborative, culturally sensitive, and most importantly, family driven. The inclusion of

systematic evaluation data has extended the influence of the CMHS grant in Rhode Island far beyond the borders of a pilot project and has dramatically changed the ways that services are delivered, as well as the ways that our state leaders view the provision of services to their constituencies.

**Symposium:
Family Services Research
Center New Projects**

**Randomized Trial Addressing Child
Maltreatment**

**Development and Evaluation of an
MST-Based System of Care**

**Empirically Validated Measures of
Cultural Competence**

Introduction

Scott W. Henggeler

The central purpose of the Family Services Research Center (FSRC), Medical University of South Carolina, is to develop and validate family- and community-based services for youths presenting serious clinical problems and their families. As such, for the past few years the FSRC has been conducting several randomized clinical trials that focus on clinical effectiveness and cost effectiveness. In addition, several new collaborations have recently started. Three of these will be summarized: (1) The Charleston Collaborative Project, which is a randomized trial of a family-based alternative to the placement of maltreated children in foster care; (2) A study that aims to develop and evaluate the clinical and cost effectiveness of an MST-based system of care for children with serious clinical problems, and (3) The development and empirical validation (through linking competence with clinical outcomes) of a measure of therapist cultural competence.

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The Charleston Collaborative Project: A Family-Based System of Care for Maltreated Children

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Introduction

Annually thousands of children are removed from their homes and placed in foster care due to maltreatment by a parent. For some children this is a safe alternative. But, once in foster care relatively few receive mental health services (Glisson, 1996) and many experience multiple placements and extended periods in out-of-home care (Schoenwald, Henggeler, & Donkervoet, 1996). In part, children may remain in alternate placements due to the system's focus on adjustment to placement rather than children's safe reunification with families.

In response to the system-level problems noted above, a model of coordinated service delivery and clinical intervention was developed for maltreated children coming into foster care in Charleston County, South Carolina. This model, The Charleston Collaborative Project (CCP) is a private/public partnership among multiple agencies, including Department of Mental Health, Department of Social Services, a private child advocacy center, and local law enforcement jurisdictions. The model includes a comprehensive forensic and clinical assessment, risk assessment, medical assessment, and family-based interventions focusing on safe reunification.

An evaluation of the CCP, currently in progress, is being conducted by the Family Services Research Center and funded by the South Carolina Department of Health and Human Services.

Method

The central goal of this study is to determine whether the Charleston Collaborative Project is more effective than *Current Services* in the community for (a) improving children's behavior; (b) improving care giver functioning; (c) reducing maltreatment re-incidence; (d) reducing time in out-of-home care; and, (e) improving the service system's performance. Moreover, the comparative financial costs of the two conditions will be examined. This study includes a 2 (treatment condition: CCP vs. Current Services) x 3 (time of assessment: 72 hours after assignment to condition, post family-focused treatment, and 3-month follow-up) design. Families are randomly assigned to treatment conditions at the point of the child's entry into protective custody. Participants will include 140 families of children taken into Department of Social Services (DSS) custody and placed in foster care due to abuse and neglect. The study includes children from ages birth-16, who have experienced varied typologies of maltreatment. These youths and their care givers are characterized by multiple and varied behavioral and emotional problems.

In addition to evaluating clinical outcomes and cost, an assessment is being conducted on key factors regarding the project's implementation. To date, agencies have overcome a number of challenges to implementation of this collaborative system of care including: (a) co-location; (b) funding and billing; (c) delineating roles of agency members; (d) personnel issues (e.g., scheduling, time-off); (e) trust; (f) communication; (g) cross-agency training; and, (h) changes in methods of decision making.

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Outcome Evaluation of an MST Based System of Care

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Introduction

Evaluations of continuum and/or system of care projects document increases in the availability, accessibility, and coordination of services, and of consumer satisfaction, when system and service level changes are implemented. To date, however, the impact on child and family outcomes has been disappointing. A growing coalition of mental health services and treatment researchers are suggesting that the attainment of more positive clinical outcomes in systems of care will require changes in treatment practices implemented across service setting (e.g., home, school, clinic, shelter) and sectors (mental health, education, child welfare, juvenile justice) within those systems. The extent to which treatments that have demonstrated efficacy in university-based settings can be (a) implemented in community-based service settings, and (b) effective with youth and families experiencing multiple problems, is as yet unknown. At the same time, the database regarding the effectiveness of the wide range of interventions implemented in community-based settings is slim, and not particularly encouraging. Leading children's services and treatment researchers suggest that the development and dissemination of clinically and cost effective services and systems will require that factors pertaining to treatment models (treatment theory, interventions, clinician, clinical supervision) service delivery models (service site, caseload, intensity, frequency, duration, focus of accountability for outcomes), target population (antisocial behavior, abuse/neglect, substance abuse, etc.), service sectors (mental health, juvenile justice, child welfare, education, private sector), and fiscal issues be addressed (Burns, Hoagwood & Maultsby, 1998; Hoagwood, Hibbs, Brent & Jensen, 1995; Mechanic et al., 1992; Weisz, Han & Valeri, 1997).

A collaborative effort between the Annie E. Casey Foundation and the Family Services Research Center, Department of Psychiatry and Behavioral Sciences, Medical University of South Carolina, currently in its development phase, will provide an opportunity to examine these multiple factors as they relate to clinical and cost effectiveness of a clinically integrated system of care, and to test the hypothesis that changes in clinical practices within systems of care may be needed to obtain more positive outcomes. The clinically integrated system of care will be based on the principles and practices of Multisystemic Therapy (MST), a treatment model that has demonstrated short and long term effectiveness in community-based settings with chronic, violent juvenile offenders and their families. The system of care will be developed in one of the four Annie E. Casey Mental Health Initiative for Urban Children sites (see Borduin et al., 1995; Henggeler et al., 1991; Henggeler, Melton & Smith, 1992; Henggeler, Melton, Smith, Schoenwald & Hanley, 1993).

Method

The clinical and cost effectiveness of the clinically integrated system of care will be examined in the context of a quasi-experimental design. The clinical portion of the study follows a 2 (treatment site: Casey neighborhood vs. Comparison site) x 4 (intake, 6-month, 12-month, 24-month) quasi-experimental design. Participants are expected to be youth characterized by significant behavioral and/or emotional problems that interfere with their functioning at home, at school, and in the community, and their families/caregivers. The number and characteristics of the project participants will vary as a function of site selection. Upon completion of site selection, a needs assessment will be conducted, and MST-based protocols will be specified for all models of service delivery needed for the target population (i.e., outpatient, school-based, therapeutic foster care, home-based, etc.). During the clinical portion of the study, all providers of services to the target population will receive training and ongoing clinical

consultation in MST, and MST implementation across models of service delivery will be monitored.

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Measuring Cultural Competence in Mental Health Professionals

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Introduction

System of care principles developed by Stroul and Friedman (1986) have served as the philosophical blueprint for recent federal and foundation efforts to reform mental health services for children. One of the key principles addresses the importance of developing culturally sensitive assessment and treatment procedures (i.e., cultural competence among mental health professionals). Specifically, this principle states "Children with emotional disturbances should receive services without regard to race, religion, national origin, sex, physical disability or other characteristics, and services should be sensitive and responsive to cultural differences and special needs" (Stroul & Friedman, 1986, pp. 26). Unfortunately, to date, clinicians and researchers have failed to articulate a method of measuring "cultural competence" among mental health service providers or researchers or a culturally competent psychotherapy process. In fact, the extant literature in this area has been described as "theoretical in nature." As part of the attempt to develop culturally competent mental health services for children, the proposed project seeks to develop a measure that assesses therapist ability to behave in a culturally competent manner when providing services to African-Americans.

This call for increased cultural competence reflects a general concern that mental health professionals have been insensitively treating and are relatively unresponsive to the needs of ethnic minorities (Brondino et al., in press; Drotar, Stein, & Perrin, 1995; Tarnowski, 1991). For example, African-Americans are

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often misdiagnosed (Jones & Gray, 1986); under utilize mental health services (Atkinson & Gim, 1989; Sue & Morishima, 1982); terminate treatment prematurely (Sue, 1977; Vernon & Roberts, 1982); and are over represented in public mental health institutions (Lindsey & Paul, 1989). A major obstacle in the pursuit of culturally competent mental health services is the absence of a method for measuring cultural competence among service providers. From both conceptual and policy perspectives, the ability to measure cultural competence seems an important step in developing culturally competent mental health services.

This project, currently underway, has two aims: 1) to develop a process instrument of cultural competence that measures therapist behavior during interactions with families; and, 2) to examine whether the developed cultural competence instrument predicts clinical outcome. These aims are seen as contributing to the development of culturally competent mental health services.

Method

Participants in this project will include 50 individuals taking part in the "Training the Trainers in Cultural Competence" workshop sponsored by The Children and Adolescent Service System Program. Each participant will rate items from several psychotherapy process batteries into one of nine (9) constructs representing characteristics and behaviors that a panel of experts previously identified as important for the practice of culturally competent therapy. Following the rating tasks, participants will rank order the culturally competent constructs in terms of the degree to which psychotherapy process items are representative of cultural competence constructs.

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The PEN PAL Project System of Care Development and Quality Improvement Applications

Introduction

The changing realities of practice in child and adolescent mental health call for a new perspective; a perspective that assumes a collaborative relationship between families and service providers and focuses on regular monitoring of the qualitative outcomes for both child and family. A truly community owned system of care builds upon the strengths of all community resources and transcends agency boundaries. Further, effective practice within the child-serving system requires that services be culturally sensitive, based upon recognition and respect for family strengths and their role as partners in planning and developing local service delivery. Finally, development of a system of care requires intensive and on-going quality improvement efforts at a variety of levels in order to train professional staff and to affect system change and positive outcomes. This summary describes North Carolina's PEN PAL Project, a system of care development initiative in three eastern North Carolina Counties.

Background

The PEN-PAL Project is one of 22 sites federally funded by the Center for Mental Health Services (CMHS) to design, implement and evaluate the effectiveness of a collaborative system of care for children and adolescents with serious emotional disturbances who are at risk for out-of-home placement. The project's partnerships include families, child serving agencies,

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community groups, family advocacy groups, and universities. The CMHS grant, awarded to the NC Division of Mental Health, Developmental Disabilities, and Substance Abuse Services (MH/DD/SAS), provides decreasing funding over a five-year period (1994-1999) with the expectation that the philosophy and procedures of the project will become integrated into and owned by the local community. The project has been based in three eastern North Carolina Counties– Pitt, Edgecombe and Nash – and has created a partnership with East Carolina University's Public-Academic Liaison. Hence, the acronym PEN-PAL was adopted.

System of Care Development

The successful implementation of this complex project – with its multiple service systems and cross-agency funding–required that relationships among service providers from different agencies be based on interprofessional collaboration and interagency agreements. These relationships led to creative funding strategies that have been employed to sustain the community-based system of care after completion of the grant period. For example, through contractual relationships, the local area MH/DD/SAS Programs extended their Medicaid provider status to local child-serving agencies, allowing additional revenues to come into local communities to maintain the emerging collaborative systems. PEN-PAL Service Coordination positions were established within all the local agencies to further promote interagency collaboration and cross-agency funding, and Title IV-E revenues were identified to support training and technical assistance activities.

In each community, a network of formal and informal community resources was developed to establish a seamless system of local community-base services, and promote a clear focus on the child and family's needs rather than on agency systems.

Community volunteers have found ways to “wrap” services around children and families to address service needs which cannot be met through the formal agency structure. Families and providers have identified neighborhood and community “informal” resources that decrease formal service dependency as well as increasing community ownership. Most importantly, inclusion of family advocates in the development and management of the system has ensured that the voice of families is heard.

Public-Academic Liaison

Development of a local system of care required that service providers be well prepared for collaborative practice with families and professionals. Such preparation requires intensive pre-service and in-service training as well as on going technical assistance. Faculty from four schools and departments within East Carolina University—including Social Work, Nursing, Psychology, and Marriage and Family Therapy–have formed the ECU Social Sciences Training Consortium to develop pre-service curricula and collaborative multiagency field placements that incorporate the system of care's philosophy and techniques. The Schools of Education and Medicine/Department of Psychiatry provide intensive training and technical assistance through the PEN-PAL Training and Technical Assistance Resource Center. Family members work as Parents in Residence with faculty, ensuring cultural competency and family focus in all training curricula and delivery. Curricula and training are developed collaboratively with local child-serving agencies, families, and community representatives to reflect the innovations that evolve through implementation of the PEN-PAL Project. Peer Trainer teams model community, family, provider and university collaboration, utilizing the training curriculum developed by the university-community partnership.

Quality Improvement Applications

Development of a system of care also required intensive and on-going quality improvement efforts at a variety of levels in order to train professional staff and to affect system change. PEN-PAL Project staff members, working collaboratively with local child-serving agencies, families, East Carolina University and community members, have developed three quality improvement tools. These tools work together to incorporate system of care philosophy and techniques as a way of teaching and reinforcing those principles and promoting system change. As a package, the tools (a) involve all levels of interested personnel in the life of a child; (b) pinpoint the systemic and individual strengths and barriers that agency personnel will need to be cognizant of in order to affect positive, coordinated change; and (c) serve as a reinforcement mechanism of the Child and Adolescent Services System Project (CASSP) Principles of Care and the philosophy of a seamless System of Care. The three tools function as follows:

1. The System of Care Coordinators utilize a project-developed *System of Care Process Observation Form* based on the CASSP Principles (Stroul & Friedman, 1986) to assess the process and progress of the developing system of care and provide recommendations. Assessment includes monthly observation of a random sample of Individual Service Teams by on-site evaluators. These evaluators assess the “systemness” of the team makeup, parent-professional interactions, use of formal and informal resources, family ownership of the resulting plan, coordination of agency professionals and related plans, use of family strengths and adherence to family’s stated domain needs. A report of adherence to CASSP principles is made to the local Project Management Committees (PMC) on a monthly basis.
2. Project Service Coordinators (case managers), utilize a project-developed *System Of Care Quality Improvement Protocol and Child and Family Service Record Assessment Form* to assess their work and adherence to CASSP Principles on a sixth month basis. The PEN-PAL Project Management Committee (PMC) also conducts a quarterly review of a sample of case records for up to five children and families that were previously assessed by the Service Coordinators. The focus of this review is to verify that services reflect CASSP principles, that the Service Coordinator’s self assessment was accurate, and to determine the level of system responsiveness. Responses are collated and analyzed to identify those system barriers that have been overcome, and those that remain. Summaries of these analyses are provided to the PMC for discussion at the next meeting.
3. *Service Testing* (Groves & Foster, 1995) activities measure the status of children and families receiving services from local child-serving agencies to assess the adequacy of system performance. Analysis of the current status of a sample of children and their families incorporates information gathered by interviews, consumer opinion surveys, case record reviews, and on-site observations by a qualified and trained set of reviewers (including parents). Information collected includes living situation, emotional status, and process factors such as assessment, service planning, and case management. Service Testing provides tools to define and track outcomes in order to establish the baselines by which to gauge the relative progress of a system’s development.

Discussion

Application of the three-tiered Quality Improvement System described above has promoted development of baseline information, tracked the responsiveness of communities' systems of care in applying CASSP Principles for children and their families, and ensured active multiagency participation in examining systems change. It is felt that the three methodologies, when combined, provide an accurate overview of system strengths and barriers. This information allows the PMCs to better plan and monitor training and service impact, and adjust services on a regular basis in order to better meet the needs of families and their children.

As the project enters the fourth of its five years of federal funding, the principles and practices upon which it is based have been refined sufficiently to allow for expansion into other areas of the state. Buncombe, Moore, Cleveland, and Guilford Counties now participate as System of Care Expansion Sites, and have created a public-academic liaison with the University of North Carolina at Greene and Guilford County called GIFTTS. The participation of these communities, enthusiastically embracing the opportunity to develop an innovative System of Care, is expected to substantially accelerate the progress of North Carolina's systems reform efforts.

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Shifting Gears: Lessons Learned From an Urban Children's Mental Health System Reform

Introduction

Over the past decade, many states have been involved in reforming their children's mental health service system to allow them to serve more children in least restrictive environments at the same cost, or at a reduced cost to state funds. Systems of care that offer children and their families who are experiencing mental illness comprehensive services ranging from respite care to acute hospitalization and other crisis interventions have been sharing their success stories across this country. Developing such a "system of care" in an extremely large, diverse and complex area such as Dade County, Florida, with a population of 1,990,445, and a child population of 494,907, (Shockley, Goltry, & Levine, 1996), exceeds the expected numbers of challenges and barriers other areas must battle.

Prior to the implementation of a children's mental health reform, this area faced common challenges seen across the country: deficit spending; placing children in expensive, at times inappropriate, residential treatment centers; treating the child apart from the family-sometimes moving the child hundreds of miles away from their homes; and turf battles among other child serving systems, such as the educational system, juvenile welfare system, and child welfare system. The following summarizes this area's successes in addressing these challenges.

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Method

In 1993, Florida's Dade County had 256 children placed in residential treatment centers, many located outside of the county in expensive, long-term facilities. In this same year, 400 children and their families were served in non-residential settings through its mental health service dollars. Compounding high costs and a long waiting lists for services was a federal lawsuit that had been filed in Miami alleging that the system had failed to provide treatment for developmental and psychological problems of children in the custody of the state. Florida's Department of Health and Rehabilitative Services (HRS) had contracted with the Florida Mental Health Institute (FMHI) to develop and assist in the implementation of an initiative called *Building Futures for Florida's Children* (Groves & Goltry Shanley, 1993), which included policy that articulated the department's commitment to address the needs of these children.

HRS District 11 is located in the regional area of social services that includes all of Dade County and Monroe County, Florida. Implementing reform policy in this HRS district proved to be formidable, as the current system was 5.7 million dollars over its state allotted budget, with hundreds of children waiting to be staffed, accepted, and served. Residential centers were being told they needed to shift their emphasis to less expensive, more community-based services with little guidance on how this shift could occur without the centers going out of business. Policy leaders from the state and district mental health program office met with staff from FMHI and developed and implemented the following plan for system change:

- Reframe and restructure the region's service delivery system through on-going technical assistance and clinical guidance from FMHI staff to policy leaders and providers.

- Assess each child in out-of-district residential placement to determine what local services were necessary to bring the child back into the community, and match the program with the strengths and needs of the child and his/her family.
- Create, strengthen and change existing services to expand the local capacity to treat these children closer to their homes.
- Expand non-residential services/supports (i.e., wraparound) through community-based interagency planning teams, called *Family Service Planning Teams*.
- Develop and implement "mobile crisis teams."

Implementation

Technical assistance and leadership activities included facilitation of policy and practice meetings between local HRS mental health office staff, the Medicaid office, and children's service providers to help shift services to include a continuum of supports to children and their families, with special considerations given to children in the custody of the state. Additional activities such as joint training and information sharing activities were included to strengthen and build the internal and external relationships among key stakeholders. Efforts were made to change supporting training programs, clinical practices, and quality assurance activities.

HRS District 11 offers unique regional geographical challenges. As Dade County is primarily urban, and Monroe County, located in the Florida Keys, offers its own regional challenges, it became apparent to District leadership and the FMHI technical assistance team that planning and implementation for this system of care must include representatives and providers from each of the different regional areas within Dade and Monroe County. Providers and district leaders agreed to the following objectives for technical assistance:

Urban Children's Mental Health System Reform

- Establish a collaborative relationship with all stakeholders including family members, program office staff, providers, and the court/guardian ad litem.
- Educate all key stakeholders on research and best practices for mental health treatment.
- Help move the delivery system from a child-centered to a family-centered system.
- Facilitate the implementation of a system of care principles (Stroul & Friedman, 1986,1994).

Results

Through collaborative relationships between the children's mental health system, the child welfare system, the juvenile justice system, and other children's service providers and advocates, the stakeholders of District 11 have succeeded in reforming a traditional mental health service delivery system. This system now includes the best practices of family-centered case planning and individualized wraparound supports, and these changes have shown results; since 1993, the number of children served in residential treatment centers has been cut almost in half (see Figure 1).

Change was achieved through individual consultation, education of stakeholders, and a

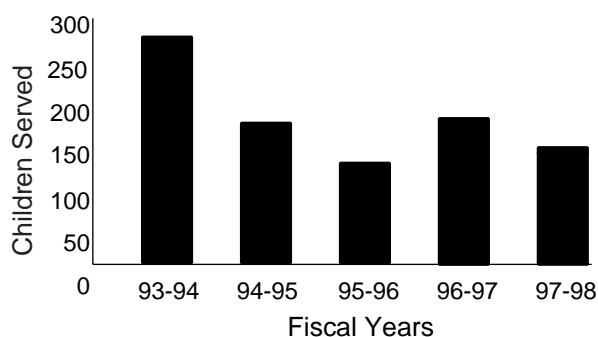
gradual shifting of practices to move the system in the direction of community-based services tailored to the individual strengths and needs of the child and family. Options for community-based mental health treatment were increased, with additional resources allocated for therapeutic group homes, therapeutic foster homes, and wraparound services available to both foster and family homes. Each child placed out-of-district was reviewed, and placed back in or near their own community with a wraparound plan to support his or her success. This allowed the HRS district to move state funds from residential treatment categories into the Family Service Planning Teams, the wraparound staffing teams located in regional areas across the district. In 1996, these Family Service Planning Teams served more than four times the children and families served in 1993, while the budget deficit in the purchase of residential services category decreased to zero (see Figure 2 & 3).

Discussion

Implementing a system of care requires a commitment from all major stakeholders and requires an investment of time on the part of each stakeholder. The results in District 11 provide an example of the returns on this investment— dollar savings, as well as the benefits inherent in implementation of community-based services for children and their families. Work on reforms in this district continue full force in efforts to accomplish the following:

- Increase family involvement in all aspects of decision-making, from individual family case plans to policies and practice changes that affect these families.
- Build on the strengths of neighborhoods and communities located within Dade and Monroe County to better serve children closer to their own homes.

Figure 1
Children Served in Mental Health Residential Settings



- Increase cultural competency across all service providers, so they can work most effectively with the families and communities served.
- Increase collaborative efforts among and between stakeholders to further enhance the system's capacity to serve all high risk children and their families.

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Figure 2
Family Services Planning Teams
Families Served

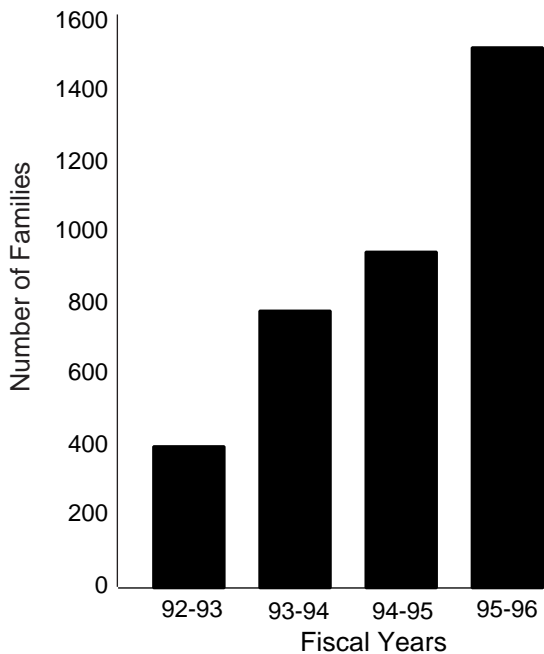
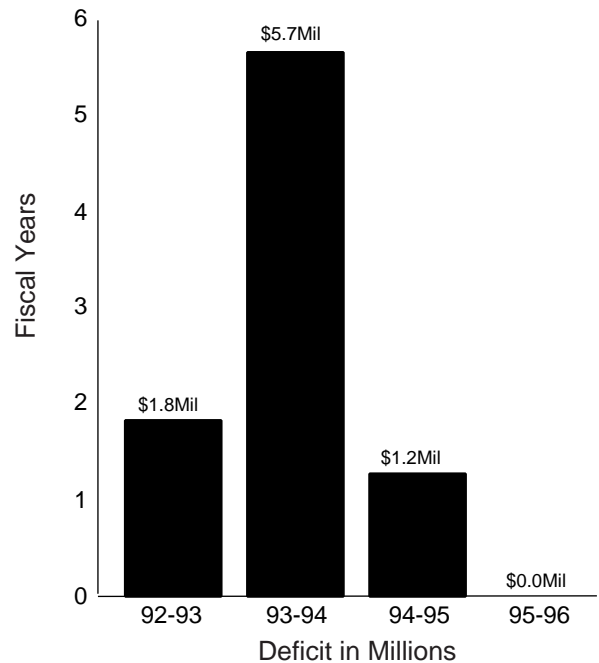


Figure 3
Purchase of Residential Treatment Service (PRTS)
Budget Deficits



A System of Care for Children's Mental Health

Introduction

The benefits of developing community alliances can be seen in the cost effectiveness of service delivery programs that are capable of caring for persons with a variety of illnesses with a broad spectrum of severity. An alliance has the ability to improve communication between multiple care givers to help ensure continuity of care of the individual plus an opportunity to utilize appropriate levels of care. In the case of the alliance described in this summary, its intent is to help insure the child's well-being within the family, reduce hospitalizations, reduce incarcerations, and empower the family to maintain a healthy, stable environment for each individual.

Method

The Youth Alliance of Central Georgia consists of very different entities, each a center for excellence in and of itself. The local community mental health center presents the leadership necessary for the alliance to work cohesively with each center of excellence. A local children's home provides intermediate and basic care residential services, therapeutic foster care, stabilization evaluations, and triage to the next level of care. The in-home treatment program offers a crisis response team, in-home assessment and a full in-home treatment programming. A local psychiatric hospital provides a day treatment facility and inpatient acute crisis stabilization. The alliance treatment team

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also works closely with the Department of Family and Children Services, Youth Development Centers, Local School Systems, Extended Family Members, Churches, etc. This alliance has worked well together in ensuring the needs of families and children are met with the least restrictive measures.

The focal point of entry into the alliance begins at River Edge Behavioral Health Center, a community mental health center. Child and adolescent cases are presented to the alliance treatment team after the initial intake information and psychiatric evaluation are completed. The treatment team determines the child's need for services and subsequent level of care within the alliance.

The treatment team reviews each case on a weekly basis to determine progress or lack thereof and if movement within the spectrum of care is indicated. Assessment of progress is measured throughout the child's treatment within the alliance. The initial assessment is completed upon admission to the alliance, each ninety days thereafter and again upon discharge from treatment. The assessment tools include:

1. extensive demographic presentation of the patient;
2. past and present medication treatment;
3. past and present therapies as they may relate to mental health and physical illness;
4. Child Behavior Checklist (CBCL: Achenbach & Edelbrock, 1983; admission, every 90 days, discharge); and
5. Child and Adolescent Functional Assessment Scale (CAFAS: Hodges, 1990; admission, every 90 days, discharge)

Raw data is still being gathered to use in the analysis of the findings of the effectiveness of an alliance in reducing hospital stays, keeping families intact and assessing the effectiveness of each level of care involved.

The children and adolescents served by the Youth Alliance for Central Georgia are referred by a number of sources throughout the community. All of these children undergo an initial assessment and evaluation. At some point in time, each child is presented to the treatment team via an interdisciplinary staffing. This staffing will determine the next phase of treatment for each child or adolescent presented to the alliance. These children come from every walk of life as all economic levels are encountered.

The alliance format presents centers of excellence to child and adolescent care that enhance mental health for both the child involved and significant others or family. The alliance finds success in reducing the number of placements a child encounters, thus, allowing the child to move to permanency early on. The alliance has the ability to allocate resources to meet needs as dictated by the communities involved, thus, an effective and efficient system is born.

References

- Achenbach, T. M., & Edelbrock, C. (1983). *Manual for the Child Behavior Checklist and Revised Child Behavior Profile*. Burlington, VT: University of Vermont, Department of Psychiatry.
- Hodges, K. (1990). The Child and Adolescent Functional Assessment Scale (CAFAS). Unpublished manuscript, Department of Psychology, Eastern Michigan University, Ypsilanti, MI