

Chapter Ten

Assessment Systems

Symposium

Using the CAFAS to Promote and Evaluate Evidence-Based Interventions and Implement Systems of Care for Youth With SED

Symposium Introduction

Kay Hodges

The first three papers in this symposium address the successful, large-scale implementation of programs aimed at bringing about system or organizational change in agencies serving youth with SED. Each program has used the CAFAS for its clinical utility and for its value in providing empirically based information about treatment success. In the first paper, Barwick et al. describe the accomplishments of the Province of Ontario and discusses future plans for moving clinical practices toward more inter-agency collaboration and more use of evidence-based interventions. In the state of Michigan, the CAFAS has been used for five years to assess outcomes, and the second paper reports on a new initiative in this program aimed at encouraging interest in evidence-based treatments. In the third paper, Loseth et al. present an innovative program for screening preschool children for mental health problems and for providing early intervention services within the Center for Mental Health Services (CMHS)-funded Pact 4 Families Collaborative in Minnesota. The final two papers report on two studies that used the CAFAS to track the progress of youth receiving programmatic interventions. Timmons-Mitchell et al. at Stark County Community Mental Health present a randomized experimental study of Multisystematic Therapy (MST) for youth referred by the court, and Vernberg et al. report on an evaluation of a school-based intensive mental health program. In this study, the CAFAS is being used to examine the variables that are associated with a good versus poor response to this intervention. The findings-to-date in both studies suggest that the CAFAS is sensitive to assessing change in functioning in youth receiving services in applied settings, including youth referred by educational and juvenile justice agencies.

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Ontario's Screening and Outcome Assessment Initiative: Lessons in Implementation and Organizational Change

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Introduction

The lack of a shared outcome measurement tool among children's mental health service providers has contributed to a system in which assessment and treatment are often uncoordinated and treatment effectiveness is seldom addressed. In the absence of a consistent set of baseline measures, there has been no uniform way of evaluating the effectiveness of particular interventions. Recently, the Ontario mental health system has acted to introduce a systematic screening and outcome measurement system with the capacity for use across a range of children's mental health disorders. The three-year provincial measurement initiative will screen for morbidity and assess outcomes for children ages 6 to 17 years of age receiving mental health services. Although the initiative is still underway, we review its history, summarize what has been learned to date, and describe our knowledge transfer plans to support implementation and organizational change.

The Ontario Initiative: Goals and Early History

In 1999, the Ontario ministries responsible for delivering mental health care to children and families developed a plan that would systematically screen for mental health disorders and assess outcomes for the approximately 120,000 children (Children's Mental Health Ontario, 1999) who receive mental health services annually. Based on recommendations from the field and a review of potential measures, the ministries settled on the use of two complementary tools: the Brief Child and Family Phone Interview

(BCFPI; Cunningham, Pettingill, & Boyle, 2000) and the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1997). Two groups were funded over three years (2000-2003) to carry out the training and implementation of these instruments. Training for the BCFPI is the responsibility of a research team from McMaster University, in partnership with a community-based agency association that supports children's mental health agencies (i.e., Children's Mental Health Ontario). CAFAS training is the purview of a collaborative group called *CAFAS in Ontario*, which is comprised of health systems researchers from the Hospital for Sick Children and clinicians from six children's mental health agencies.

Method

Key Decisions and Preparations

The first key decision was to communicate the goals of the initiative to all children's mental health agencies. Following a formal announcement of the mandate by the ministries, three orientation sessions were scheduled to further inform agency leaders across the province. Representatives from the ministries, the CAFAS team, and the BCFPI team described the essential features of the tools and responded to questions. Without exception, all of the meetings included some resistance to measurement and feelings of mistrust in how the government would use the data collected. In retrospect, it is evident that the one ministry communication regarding the intent of the initiative was insufficient, both in its lack of redundancy (i.e., there should have been multiple communications) as well as its focus (i.e., follow up with executive directors who may not have acted on the information). Even into the third year of the initiative, the intent and goals of the initiative have not been well communicated to participants, and this has bred a feeling of mistrust and has strengthened the level of resistance and/or ambivalence to systems change.

A second key decision was to augment computer technology in children's mental health centers, thereby preparing them to contend with the implementation of the two computer-based tools. Early on in the project, the ministries conducted a survey of the state of computer technology across the system. As a result of their findings, two new desktop computers were supplied to each participating agency. Although this purchase was very well received, we have come to realise how varied agencies can be with respect to their technological sophistication, as well as to the level of computer literacy among clinicians. These issues continue to be dealt with on an ongoing basis and have, at times, challenged the resources available, both within the ministries and in each of the implementation teams.

A third important decision was to form an Advisory Committee to help guide the training and implementation process and to make recommendations regarding the eventual use of the data. The Advisory Committee planned to meet every two months and to include representation from all of the stakeholders. In reality, this committee met only once, giving way to a less formal group of stakeholders who were more narrowly focused on immediate training and implementation issues rather than long-term sustainability.

We recognized from the outset that such an ambitious initiative required a participatory framework. Since implementation of the CAFAS in this study involved thousands of clinicians, a fourth key decision was to seek active involvement from frontline children's mental health agencies whose participation was seen as a key factor in obtaining acceptance by the field. Evidence suggests that opinion leaders, or *champions*, are effective changers of attitudes and opinions (Klein, 2002). We sought committee participants who were ready for change (Edwards, Jumper-Thurman, Plested, Oetting, & Swanson, 2000) and were willing to be more actively involved in supporting the initiative. A steering committee comprised of representatives from six children's mental health agencies and project staff continues to meet on a monthly basis. These meetings have proven useful for sharing information, making decisions, and for assessing the levels of acceptance or resistance in the field.

Provincial Training

A one-day training class for the BCFPI included intake staff at the 125 children's participating agencies and was conducted in a computer lab setting. Following the training, trainees were required to

undergo a certification interview before they could receive the software and proceed to implement the tool. See Table 1 for a comparison between the BCFPI and the CAFAS.

Training for the CAFAS required teaching approximately 2,500 clinicians to become reliable raters of the tool. A training presentation was developed based on CAFAS materials and reliability criteria (i.e., satisfactory reliability on ten vignettes), and according to teaching principles applicable to adult learners. Agencies contacted us to schedule training. While some agency representatives were motivated to move forward in this initiative and became our champions, many others were ambivalent or resistant when approached, suggesting a relatively low level of readiness for change within the organization (Edwards et al., 2000). Three trainers travelled across the province conducting two-day training sessions for a maximum of 25 clinicians. One year into the training phase the team reviewed the participant evaluations and revised the training presentation.

Table 1
Summary of Measures

<i>Characteristics</i>	<i>Child & Adolescent Functional Assessment Scale (Hodges, 1997)</i>	<i>Brief Child and Family Phone Interview (Cunningham et al. 2000)</i>
Purpose	Measures impairment in day-to-day functioning	Screen for mental health concerns Tracking outcomes
Primary Uses	Assessment Treatment Planning Program Evaluation Outcomes	Triaging Treatment planning Outcomes
Rater	Practitioner with mental health background	Intake worker with mental health background
Time	10 minutes	30-45 minutes
Administration	Not administered; rater chooses from behavioral descriptions	Computer-based telephone administration of standardized interview
Informant	Parent, teacher, other	Parent or teacher (Teacher/youth self-report)
Training	Self- or group training for reliability	Training for reliability
Format	Computer-based or paper	Computer-based
Source of Information	Multiple	Parent
Age of Youth	CAFAS: 6-17 years PECFAS: 3-7 years	Children ages 3-18 years
Domains	<i>Youth</i> Home School Community Behavior Towards Others Moods/Emotions Self-Harmful Behavior Substance Use Thinking <i>Caregiver</i> Material Needs Family/Social Support	<i>Externalizing Behavior</i> Regulating Attention Impulsiveness Activity Level <i>Internalizing Behavior</i> Separation from Adults Managing Anxiety Managing Mood <i>Child Functioning</i> Child Social Participation Quality of Social Interaction School Participation & Achievement <i>Family Functioning</i> Family Activities Family Conflict Global Family Situation <i>Barriers to Service Utilization</i> Work Schedule Transportation Language Risk and Protective Factors Readiness for Change

Results

Support for Implementation and Organizational Change

Several factors have been described as necessary for the attainment of change within organizations, including: (a) strong and innovative leadership, (b) organizational readiness and openness to change, and (c) use of resource people and teaching tools. Factors expected to hinder change include: (a) resistance to measurement, (b) lack of trust in the goals of the initiative and intended uses of the data, (c) fear of change, (d) lack of skilled and experienced staff, (e) resistance from other agencies and the fear of disturbing alliances, (f) fear of losing funding, and (g) confusion regarding the initiative (Ochocka, Nelson & Lord, 1999). Our implementation support plan was developed with this knowledge in mind, and on the basis of what we have learned in this undertaking. Three of the lessons learned through this enterprise are summarized below.

First, the success of CAFAS and BCFPI implementation in Ontario is linked to the perceived and actual clinical utility of these measures. Evidence suggests that people will adopt new ways of doing things far more readily if they can see the advantage of doing so. This means that people must come to appreciate how the change helps them to do something that was difficult or impossible to do before (Klein, 2002). We hope that the advantages of change will be communicated in regional meetings with stakeholders and in documents (i.e., agency interviews) posted on our web site.

Second, it is not sufficient to train the skill required to use the tool. For successful adoption of the change to occur participants must be taught to apply their new knowledge. For the BCFPI, this means conducting individual and small group consultations with agencies to assist them in developing the knowledge to inform triaging and clinical decisions on the basis of the BCFPI individual profiles and aggregate data. For the CAFAS, clinicians need to learn that: (a) they can collect the information necessary to rate CAFAS at the beginning of treatment without jeopardizing the therapeutic relationship with the client, (b) that they can use the CAFAS profile in a therapeutic way, and (c) that CAFAS data can assist in treatment plan preparation and case decisions. Lessons learned from both implementation teams during the training phase of this initiative are briefly summarized in Table 2.

Third, our partnership with mental health agencies provides a base for improving the measures, making them more suitable for the contexts and populations with which they were being used. For the CAFAS, this is evident in that the author of the measure (Hodges, 1997) has remained open to suggestions and has demonstrated a willingness to work in partnership with us. Furthermore, efforts are underway to translate the CAFAS into French for use with Francophone children and families, and special guidelines for a CAFAS rating system for use with First Nations children and families are being developed. The BCFPI has undergone further development to include a downward developmental extension as well as questions that query the presence of psychotic symptoms.

Table 2
Lessons Learned from Training for Use of
Assessment Tools in a Mandated Context

- Trainers require content knowledge in mental health and psychometrics, and should be exceptionally knowledgeable about the tool.
 - Trainers require teaching experience and knowledge in the principles of adult education.
 - Training is a highly strenuous activity; be properly staffed and schedule well to avoid burnout.
 - Review training session evaluations and adjust the training accordingly.
 - Expect resistance and negativity; over-learn material, anticipate questions, and be professional.
 - Retaining objectivity can improve rapport with your audience; this is easier for trainers who are not the developers of the tool.
 - Training for a skill and for clinical application (interpretation) is not equivalent; be prepared to do both.
 - Training groups can provide helpful insights for improving the tool and software design.
 - Communicate clearly and often; redundancy is key.
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Communication: Infrastructure for Knowledge Transfer

Knowledge transfer activities are part of the overall cycle of innovation and change (Backer, 2000). Web sites dedicated to the use of each tool, in addition to face-to-face regional meetings, provide access to support resources and to information regarding project developments, clinical applications, organizational experience and, eventually, findings from aggregate data. Other resources include clinical and technical support via telephone/email/in-person visits, and software training for select people in each agency. The key is not simply to share what is learned from this initiative but to build capacity and a community of practice that results in use of the tools to improve services for children.

Conclusion

Ontario's screening and outcome assessment initiative is a complex and ambitious project. It presents both tremendous possibilities and challenges. The difficulties are rooted in a history of providing mental health services without knowledge of outcomes, the complexity of assessing mental health services across a range of different programs and treatment orientations for children who present with varied mental health problems, the resoluteness of organizations to freeze and resist in the face of change, and the longstanding disconnect between mental health agencies that are situated across a vast province and must serve a range of cultures. Some issues may be more difficult to address than others, and there will be limits on what can be concluded at the end of the process. It is clear, however, that what we learn from this undertaking will have important implications for future system-wide initiatives both within and beyond the children's mental health system in Ontario. There is much to learn beyond the lessons told here. At the end there will be much to say, and the system of mental health services to children in Ontario will have begun to steer a new course.

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CAFAS Statewide Initiative: Tracking Progress During Treatment to Encourage Evidence-Based Interventions

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Introduction

Many states now require community mental health service providers to report outcome data on clients whose services are being funded by public mental health dollars. This is typically a quality assurance function that is perceived by providers to be a burden, and sometimes, even a threat. Unfortunately, states often are not able to give timely feedback to the providers so that the information can be used to inform their clinical programs. The individual clients do not appear to benefit beyond the possible effects that might come from agencies being scrutinized or the positive impact of the clinician having to periodically evaluate progress. Even if information does flow back to the providers, typically the client has long since exited from services. The Department of Community Health in Michigan is similar to other states in requiring that data be reported as part of their contractual relationships. However, at the same time, the State of Michigan offers an opportunity for the community mental health service providers (hereafter, referred to as providers) to voluntarily participate in a project that aims to facilitate their use of data in a timely fashion to track the progress of each youth in care and to alter the course of treatment if treatment is progressing poorly. This represents the most recent initiative of the Level of Functioning (LOF) Project, which is a collaborative program between the State, Eastern Michigan University, and the providers. The purpose of the LOF Project, which is now in its fifth year, has been to assist the providers in developing expertise and procedures for monitoring the effectiveness and appropriateness of the services they offer.

Analyses of the State-pooled database have raised questions about the effectiveness of interventions with various types of clients. This is particularly the case for substance users, delinquents, and children with behavioral problems (in the absence of mood disturbance). Examination of the match between type and extent of the youth's impairment and the services received has revealed evidence of poor resource allocation. Furthermore, logistic regression performed on this dataset has identified factors associated with poor outcome; specifically, those factors include prior hospitalization for psychiatric or substance use problems, prior involvement with juvenile justice, and having a caregiver who is rated as severely or moderately impaired on the CAFAS Caregiver Family/Social Support subscale (Hodges & Wotring, 2000; Hodges, Xue, & Wotring, 2001).

Up to the last year, the LOF Project has generated aggregate reports for each site and for the State database. This past year the focus changed to tracking the outcome for each youth. However, this feedback was provided quarterly and, thus, was commentary on outcome after treatment had ended. This most recent LOF initiative is described in this report.

Method

The Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 2000) is a rating scale used to assess a youth's day-to-day functioning. Each of the participating providers uses the CAFAS computer program to record CAFAS problems, strengths, and goals for each of the eight CAFAS subscales. In addition, other information is input, including demographic characteristics, diagnoses, risk factors in the youth's history, and services received. Each provider sends data to the university evaluator once a month. Because the CAFAS computer program has an export function that generates an ASCII data set, the providers can also generate their own data files and import them into ACCESS, Excel, or SPSS programs.

Beginning in October, 2001, each site received feedback within a week of sending the LOF Project their monthly data export. Since the CAFAS computer program exports a SPSS data file and the corresponding syntax file, LOF personnel are able to quickly run SPSS routines that generate Excel data files. This monthly feedback consists of Excel files, in which the longitudinal data on a youth are contained in one line. Both electronic and paper copies of these Excel files are provided (these files are referred to as reports because each has a specific managerial purpose). Each report lists different information, although most of them include:

type and extent of impairment at intake, CAFAS total score for all evaluations, interventions and collaborative services received, caregiver resource level and, if relevant, risk characteristics of the child and the family. The reports are organized around the questions and comments that follow:

1. Is every youth getting a quarterly outcome evaluation in a timely fashion?
2. Which youth are currently making poor progress? This file contains only those youth whose CAFAS scores indicate deterioration or no change during treatment.
3. Which youth are at high risk for poor response to treatment, out-of-home placement, high service utilization, or high service cost? There are three files, each identifying youths based on a different criterion, as follows:
 - a. Youth at risk because they had one or more severe impairments at intake on the CAFAS.
 - b. Youth at risk because they had a previous history of hospitalization for psychiatric, behavioral, or substance use problems or a previous history of involvement with the juvenile justice.
 - c. Youth at risk because their care-giving situation indicates severe or moderate impairment.
4. What are the needs of youth who recently entered services? This file lists youth who have recently had an intake evaluation, with the intent to provide information on the cases so that they can be reviewed for treatment planning and supervision purposes.

Discussion

The providers are keenly interested in receiving this information for on-going youth cases. They anticipate that close monitoring of progress during treatment will result in better outcomes. In addition, they find the information useful from a number of perspectives. Clinical supervisors can provide more timely support to staff who work with challenging or treatment resistant youth. The data will continue to expose ineffective treatment with specific client groups, providing guidance regarding the need to use evidence-based interventions. Typically this requires that staff learn techniques that they were not taught in graduate training. Often efforts to implement evidence-based treatments are strongly resisted. However, when faced with the undeniable feedback of treatment failure, we have found that clinicians are much more motivated to try new techniques or to incorporate manualised treatments (Hodges & Wotring, 2002) into their programs. Additionally, the information is helpful in managing risk that comes with treating youth with serious emotional disturbance; these youth are often at risk for placement outside the home, school, or community at the onset of treatment. This information helps administrators and managers become more invested in implementing evidence-based interventions. The goal is to continue to help the providers develop a system for monitoring on-going cases and to use this feedback to improve the quality of services they provide for children and adolescents.

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Addressing Mental Health Concerns in Early Childhood: A System for Early Identification and Evaluating Effectiveness

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Introduction

Identification and successful treatment of emotional and behavioral concerns in young children has been a challenge for a number of reasons, including lack of appropriate assessment measures, age appropriate diagnostic criteria, and treatment resources for the young child. The Preschool and Early Childhood Functional Assessment Scale (PECFAS) Screener (Hodges, 1997) is intended to assist in the early identification of mental health concerns in preschool aged children. If the PECFAS Screener identifies concerns, the full interview, which was developed for the PECFAS measure (Hodges, 1995a), is administered and referral can then be made to appropriate resources. The PECFAS Screener is used as part of preschool screening within the PACT (Putting All Communities Together) 4 Families Collaborative, a Children's Mental Health and Family Service Collaborative, as well as in the local Head Start programs located in four rural counties in west central Minnesota. PACT 4 is in its third year of a children's system of care grant (i.e., Wraparound Initiative) and the first year of an early childhood mental health grant (Project SUCCEED); both grants are funded through the Substance Abuse and Mental Health Services Administration (SAMHSA).

Method

Studies by researchers such as Murphy and his colleagues (Murphy, Pagano, Ramirez, Anaya, Nowlin & Jellinek, 1999) have illustrated the usefulness and validity of the Preschool and Early Childhood Functional Assessment Scale in rating mental health concerns in children (Hodges, 1995a). The PECFAS consists of seven scales assessing the child (i.e. School/Daycare, Home, Community, Behavior Toward Others, Moods/Emotions, Self-Harmful Behavior, and Thinking/Communication) and two scales assessing the caregiver (Material Needs and Family/Social Support). The child is rated in each of these scales as Severe (30), Moderate (20), Mild (10), or No Impairment (0). The seven scale scores can be combined to reflect an overall level of impairment, with a higher score correlating to a higher degree of impairment. Individual scale scores, as well as the combined score, can be used to measure changes in impairment over time. The information needed in order to score the PECFAS can be obtained through routine clinical interview or by using a structured interview, the PECFAS Parent Report (Hodges, 1995b), which is hereafter referred to as the PECFAS Interview.

Hodges developed the PECFAS Screener, in consultation with PACT 4 staff, by selecting questions from the PECFAS Interview (Hodges, 1995b), and over four years, refined them to a 21 question format. The Screener is administered through an interview with the caregiver, and typically takes only ten minutes to complete. It uses information provided by the caregiver to identify possible mental health and behavioral concerns in preschool aged children. When indicated, this brief interview via the PECFAS Screener is followed by a more extensive discussion of the child's functioning, using the full PECFAS Interview, which permits scoring the PECFAS measure.

The use of the PECFAS Screener over the last four years has helped to develop a continuous system of early identification, referral, and follow up. The steps are:

1. Utilize the PECFAS Screener at preschool screening sites and through Head Start programs.
2. Provide a follow up interview with the full PECFAS Interview for children for whom concerns were identified. Offer resources to the family based on individual needs; all follow up is voluntary.
3. Children identified with more serious behavioral or mental health concerns are provided a comprehensive approach to services that includes the school system (i.e., Early Childhood/Family Education), mental health providers, public health, Head Start, medical, and other local resources.
4. Administer a second PECFAS Interview after a six-month period to measure the impact of the interventions.

Results and Discussion

All children screened. Over 1,000 children have been screened with the PECFAS Screener over the last four years (1997-2002) within the service area of PACT 4 Families. Between 3% and 6% of the children screened at preschool screening sites needed follow up, based on established follow up criteria for the Screener. In the fall of 2000, all new Head Start enrollees were administered the Screener. Follow up was indicated for 23% of the 400 children screened through Head Start for the 2000/2001 school year. Families who agreed to do so were followed up with the full PECFAS Interview (all follow up is voluntary on the part of the parent). PECFAS scores ranged from a low score of 20 to a high score of 160. Follow up discussion with the parents led to half of them being referred to parenting supports or other related community resources, and the remaining half being referred to resources for further evaluation, testing, or medical treatment.

Children receiving full PECFAS Interview. A review of 22 children who were administered the follow-up PECFAS Interview revealed a range in total score (i.e., the sum of the seven youth subscales) of 20 to 160. Within this sample, five scored in a range that would be viewed as being mildly impaired (20 to 40), eleven scored in the 50 to 80 range or moderate impairment, and six in the 90 to 160 range, indicating more severe impairment. Each of these 22 children had at least one item recorded on the Home subscale at the severe, moderate, or mild levels of impairment on the full PECFAS Interview. Sixteen children (72%) were assessed with some level of impairment in the School/Daycare subscale. Nineteen children (86%) were identified with some level of impairment in the Behavior Towards Others Scale, and thirteen (59%) were identified with some level of impairment on the Moods/Emotions subscale. Table 1 presents the scoring for each of the seven subscales by severe, moderate, or mild impairment for this sample of 22 children.

Table 1
PECFAS Scoring by Subscale
(N = 22)

CAFAS Subscale	Severe Impairment (Score 90-160)	Moderate Impairment (Score 50-80)	Mild Impairment (Score 20-40)	Number of Children with Impairment
School/Daycare	8	2	6	16
Home	8	12	2	22
Community	0	2	1	3
Behavior Towards Others	6	6	7	19
Moods/Emotions	2	3	8	13
Self Harmful Behavior	0	0	4	4
Thinking/Communication	0	2	2	4

The caregivers responded to a number of different questions on the PECFAS Screener, indicating that they had some level of concern. The PECFAS Screener questions that were endorsed include: (a) having problems at daycare or preschool; (b) deliberately doing mean things to animals; (c) temper tantrums at a frequency of more than one per day; (d) shove, hit, or hurt other kids; (e) child's behavior interfering with the parents' activities (based on ten questions which were rated 4 or 5 in severity, with 5 as the most severe); and (f) "other risk factors" being identified. Those risk factors may include conversations with their physician, or a family history of mental health issues. A number of parents also requested further follow up as a result of the screening process.

Children evaluated twice with full PECFAS Interview. A number of families were followed-up with a second full PECFAS Interview six to eight months after the child was involved with a community resource. Of those in which both an initial and a six-month full PECFAS Interview were completed,

scores indicated a drop in the total score after the child was involved in specific interventions to address some of their needs. Resources and interventions utilized included the child attending existing school readiness programs, Early Childhood Family Education (ECFE) or Early Childhood Special Education (ECSE) programs, and family support that could include discussion on parenting and use of other community resources.

Table 2 presents a sample of total scores at the initial interview and at six-months for 10 children who ranged in age from three-and-a-half to five years.

Table 2
Comparison of Initial and Six-month PECFAS Interviews
(N = 10)

Initial PECFAS		Six-month
Interview	Resource	Interview
90	Family Support	60
130	ECFE & Family Support	90
70	School Readiness	50
140	School Readiness/ECSE/ECFE	100
70	School Readiness	50
40	Family Support	20
40	School Readiness	20
70	School Readiness/Family Support	10
80	Family Support	50
160	Family Support	120 (4 months)

Summary

Use of the PECFAS Screener administered at pre-school screening or in Head Start programs has been an effective tool to identify children who could benefit from more focused interventions prior to entering school. The Screener, when partnered with the full PECFAS Interview, has helped to identify both early and more significant behavioral concerns and has provided a basis for determining the child's current needs for community resources. Most of the interventions took place outside of the formal mental health system, using age-appropriate resources already in place. Based on PECFAS ratings at six months post-screening, improvement in day-to-day functioning was associated with receipt of these interventions. Utilizing the PECFAS Screener and the PECFAS Interview provided a foundation for identifying concerns at a young age and for measuring change after referral to community resources.

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MST and the CAFAS: Measuring Treatment Success

Jane Timmons-Mitchell & Monica M. Bender

Introduction

The Child and Adolescent Functional Assessment Scale (CAFAS) is a versatile instrument for measuring children's behavior in five key domains that comprise their social and interpersonal lives. The CAFAS has been used extensively to determine needed levels of care for children and youth served by the public mental health system. In the present study, the CAFAS is one measure of treatment progress for youth in the juvenile justice system. Youth in the present study were randomly selected to receive either MST (Multisystemic Therapy; Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998) or usual services provided by the juvenile court.

Method

Participants

Participants were youth who had a suspended commitment for a felony offense, and who were at risk of out-of-home placement. A total of 50 court-referred youth participated in the study; their mean age was 15.5 years. Most were male, non-minority youth, which is representative of the court population. The average age of first offense was 13.5 years. Youth averaged about three felonies and one commitment prior to enrollment. There were no significant differences between the MST youth and control group youth on demographic or court-related variables.

Procedure

Youth were referred to the Court Administrator who then flipped a coin to randomize assignment into one of two groups: youth receiving MST services ($n = 31$), and a control group of youth who did not receive MST services ($n = 19$). Youth and their families were administered measures at each of three times: (1) at the time of enrollment, or just after the coin flip (Time 1); (2) at the conclusion of services, or five months after the coin flip (Time 2); and (3) at six-month follow-up after the conclusion of services, or about 11 months after the initial coin flip (Time 3). The measures included: (a) the Child Behavior Checklist (CBCL; Achenbach, 1991a); (b) the Youth Self-Report (YSR; Achenbach, 1991b); (c) the Behavioral and Emotional Rating Scale (BERS; Epstein & Sharma, 1998); and (d) the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 2000). In addition, the MST Therapist Adherence Measure (TAM; Henggeler & Schoenwald, 1999) was administered to families receiving MST services. For all youth, court variables were tracked, including offenses prior to referral, offenses since referral, and days in commitment both prior to and since referral.

Although numerous measures were utilized in this study, results provided below address the ability of the CAFAS to measure improvement in youth functioning. Domains measured by the CAFAS include: Role Performance (School/Work, Home, and Community), Thinking, Behavior Toward Others, Moods/Self-Harm (Moods, Emotions, and Self-Harmful Behavior), and Substance Abuse. An additional two scales measure caregiver resources in the domains of Basic Needs and Family/Social Support. Ratings for each scale range from 0 to 30, and the total scores range from 0-150, with higher scores indicating more severe impairment. At the time of referral, the CAFAS total score (i.e., the sum of the eight youth subscales) for the MST youth averaged 104, while the control youth average was 70. Other measures were not significantly different at time of referral.

Results

The changes in measures for the MST youth from referral (Time 1) to discharge (Time 2) were significant, and the changes in CAFAS scores were meaningful as well (i.e., from 104 at Time 1 to 25 at Time 2). Analysis of the CAFAS scores for the expanded, total MST sample of 60 youth revealed the following: CAFAS Time 1: Mean = 101; CAFAS Time 2: Mean = 57; and CAFAS Time 3: Mean = 33.

Over time, CAFAS scores were inversely related to the BERS, with CAFAS scores decreasing and BERS scores increasing from Time 1 to Time 2 to Time 3. This is in the expected direction, as a higher score on the CAFAS reflects greater impairment and a higher score on the BERS indicates increased strengths.

During the course of service, the average number of offenses and days in commitment were fewer for youth in the MST group than for youth in the control group. MST youth committed about half as many offenses (1.4) as did the control group youth (3), and spent seven days in commitment, whereas control group youth spent 49 days in commitment.

Discussion

MST appears to be successful in helping court-involved youth commit fewer offenses and stay out of jail. The CAFAS shows that the court-involved youth referred have significant mental health needs at the time of referral. Over time, and at follow-up, the CAFAS scores for the MST youth continued to decrease.

A difficulty encountered in the research involved getting CAFAS forms filled out for the control group youth. The forms that were completed at Time 1 may not have been completed reliably for the control group, as the difference between the MST group and the control group reflects (i.e., a total score of 70 for the control group and 104 for MST youth). The barrier appears to be an administrative one regarding the participation of the probation officers, who were responsible for completion of the CAFAS for the control group. Follow-up with the control group was also problematic.

However, in the context of services to juvenile justice youth, the MST program appears to be serving the needs of the youth well, and the CAFAS has proven to be a useful tool in documenting treatment success.

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CAFAS Outcomes for a School-Based Intensive Mental Health Program

Eric M. Vernberg, Joseph E. Nyre, Richard W. Puddy, Anne K. Jacobs, & Michael C. Roberts

Introduction

The Intensive Mental Health Program (IMHP) was created to increase access to mental health services and thus, increase positive outcomes for elementary-age children with significant emotional difficulties and needs. IMHP also facilitates research efforts leading to more effective interventions (Vernberg, Roberts, & Nyre, 2002), and provides intensive training for master-level psychologists. The IMHP provides a comprehensive model of serving children while keeping schools at the center of the community. The IMHP serves children in kindergarten through the sixth grade; these youth typically have multiple diagnoses in addition to numerous stressors at home such as family financial concerns, drug/alcohol abuse, and child or spouse abuse. Children attend the IMHP for three hours each day and attend their neighborhood school for the rest of the day. The goal is to keep the neighborhood school as the children's home base and return the children to that less-restrictive environment as soon as they show improvements in their behavior and mood.

The IMHP team comprises a certified special education teacher, a paraprofessional teacher, therapists (Licensed Masters Level Psychologist), a doctoral level supervising psychologist, a school psychologist, school social workers and social work interns, and Therapeutic Outcomes and Processes (TOP) consultants. Specific components of the IMHP include a small child-to-staff ratio of three adults (teacher, paraprofessional and therapist) for six children, specialized academic instruction, group therapy four times per week, individual therapy at least two times per week, an individualized behavior program, and comprehensive service coordination. The IMHP recently received substantial funding from the U.S. Dept. of Education to evaluate outcomes and complete manualization of this treatment approach. The present study describes changes in adaptive functioning, as measured by the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 2000), among 36 children enrolled during the first five years of the IMHP.

Method

Retrospective CAFAS ratings were used to describe changes in adaptive functioning among 36 children (28 boys and 8 girls) enrolled during the first five years of the program. A total of 43 children were potentially available for the study. Of these, seven were excluded because available case records were not sufficiently complete to allow CAFAS coding at both measurement points. Ages of participants ranged from 5 to 13 ($M = 9.72$) and time in the IMHP ranged from 1 to 48 months ($M = 13.28$). Sixty-one percent of participants were Caucasian and 39% belonged to an ethnic minority (African American, Hispanic, Native American, or Biracial).

All children enrolled in IMHP had a recent history of one or more episodes at school involving acute threat of harm to self or others, such as attacking teachers or peers, serious threats of self-injurious behavior, or markedly disorganized or bizarre behavior at the time of admission. Nearly all met criteria for one or more Axis I DSM-IV (American Psychiatric Association, 1994) diagnoses on admission. Attention Deficit Hyperactivity Disorder (ADHD) or another disruptive behavior disorder was diagnosed in 90% of the children. Anxiety disorders, especially posttraumatic stress disorder (PTSD), were common. About one-third of the children were diagnosed with a mood disorder, and about one-third of the children exhibited notable psychotic features at some point during treatment. Serious family dysfunction (e.g., history of child maltreatment, psychiatric or behavior disturbance in parent, domestic abuse, foster care placement) was noted in 70% of cases, with mild to moderate family dysfunction reported for the remainder. Lower ratings on the Global Assessment of Functioning Scale from the DSM-IV represent less severe functionality; at the time of enrollment in the IMHP, these scores ranged from 50 (serious symptoms or impairment) to 20 (frequently violent; manic excitement, danger of

hurting self or others). Approximately 83% of the children resided with their families or with a relative, 14% were placed in foster care, and 3% were in therapeutic foster homes.

CAFAS ratings were calculated using data gleaned from the children's records at two measurement points, intake and discharge. CAFAS ratings were made retrospectively using these records because the records were extensive in documenting both the problems as well as the progress the child made over time. The material to be rated was organized chronologically, and a timeline indicating key events and incidents (e.g., psychotic episodes, protective service reports, changes in school placements) was created for each child. CAFAS ratings were made by graduate research assistants who met reliability standards on the CAFAS Self-Training Manual (Hodges, 1996), and were certified as CAFAS raters. Ratings were made following a review of all available case material for the three-month period preceding each measurement point. In addition, raters interviewed IMHP staff (or former staff) to clarify material that was incongruous or incomplete in the written records and products. Two researchers independently rated the same material for 15 cases. The degree of agreement between the researchers ranged from 93.33% to 100% across the various CAFAS scales.

Results and Discussion

The results of the CAFAS analysis indicate that a majority of children showed marked improvements in most domains of the CAFAS over the course of treatment and returned full-time to their neighborhood schools. Analyses indicate significant improvement in overall dysfunction from intake (Marked Impairment) to discharge (Moderate Impairment) for the CAFAS total score using eight scales. Likewise, significant improvement was made on all subscales except Community and the two caregiver scales (see Figure 1). Comparison of the cases showing the best overall functioning at discharge with the cases showing the lowest overall functioning at discharge provides an initial view of children most likely to benefit from this treatment approach (Figure 2). The results also give potential clues to key elements of the intervention process that may influence outcomes, such as level of service coordination and progress in addressing family functioning. The factors associated with the least improvement at discharge included: greater initial impairment on the Thinking and Material Needs subscales, early removal from

Figure 1
Percentage of Children Rated with Moderate or Severe Impairment

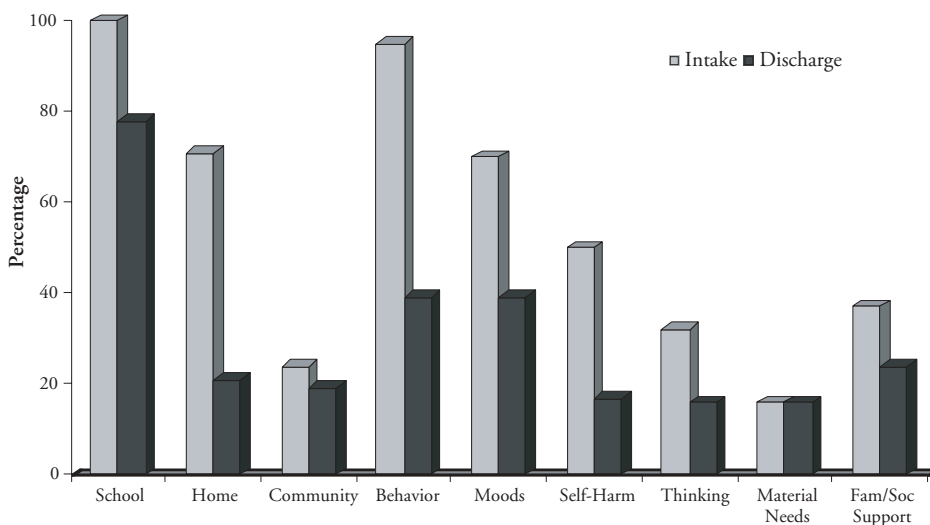
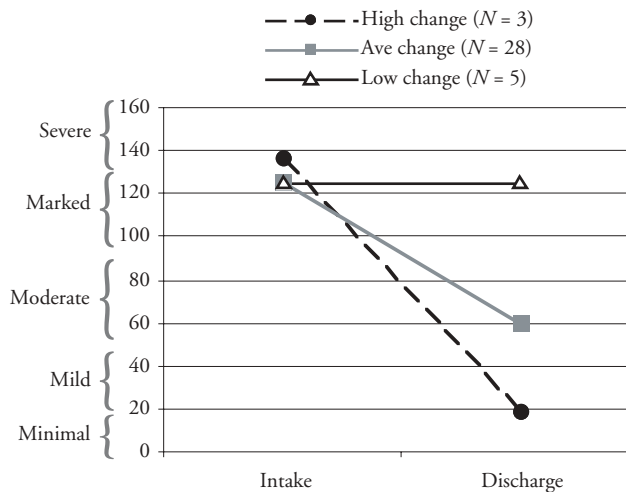


Figure 2
CAFAS Group Change Scores from Intake to Discharge



program due to placement change or family upheaval, lack of parent or guardian involvement in the program, and children with behavior disorders without other mental health concerns. The factors associated with greatest improvement at discharge included: greater initial impairment on Mood and Self-Harm subscales, greater consensus among people working with the child, neighborhood school staff working well with the IMHP, actively engaged parents/guardians, high child “buy-in” to the contingency program, and active use of cognitive-behavioral strategies learned in therapy.

In addition to measuring effectiveness of the IMHP and providing insight into some of the factors influencing outcomes, the present study highlighted several aspects of using retrospective CAFAS ratings. Benefits of using retrospective ratings include: organizing and drawing conclusions from robust data sets, providing broad categorizations of functioning, aiding the formulation of hypotheses regarding responsiveness to treatment, and high inter-rater reliability. Unfortunately, data quality and completeness varied as forms changed over time, making prospective CAFAS ratings preferable. Other data collected as part of the IMHP will also be needed to fill in additional details about each child’s behavior over time.

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Fidelity to the Wraparound Process and Its Association with Outcomes

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Introduction

The wraparound approach is an intensive community-based intervention that has been cited widely as a promising service delivery option for which more extensive implementation and empirical validation is warranted (Burns, Hoagwood, & Maultsby, 1998). The intervention has attracted significant attention nationally from providers and researchers; it is estimated that the current number of youth with their families engaged in wraparound could be as high as 200,000 (Faw, 1999). However, the research base has been slower to develop, with a recent review finding only 15 outcome studies on wraparound, most non-experimental or quasi-experimental (Burchard, Bruns, & Burchard, 2002). This is not surprising considering that the core elements of wraparound were only recently defined and codified (Burns & Goldman, 1999).

One crucial step in the process of determining the effectiveness of the wraparound approach is design of methods for measuring fidelity to the intervention. Ensuring treatment fidelity in children's and family services is becoming an increasingly important issue in both service delivery (Kazdin & Weisz, 1998) and research (Lourie, Stroul, & Friedman, 1998). For wraparound, the flexible, family-centered nature of services mandates that close attention be paid to fidelity to core practice principles to ensure that "slippage" from the model does not occur. With respect to research, consistent measurement of fidelity to the intervention will be crucial in future evaluation studies, in order to explain variation in observed outcomes within and across studies (Bruns, Suter & Burchard, 2001).

Despite assumptions about the importance of maintaining fidelity in order to positively influence outcomes for children and families, this relationship has not yet been explored. The current study aimed to determine statistical associations between scores on the Wraparound Fidelity Index (WFI) 2.0 (Bruns et al., 2001) and several outcome measures being collected at a site participating in the evaluation of the federal Comprehensive Community Mental Health Services for Children and Families (CCMHS) program (Manteuffel, Stephens, & Santiago, 2002). In keeping with the existing national literature base, it was hypothesized that adherence to wraparound fidelity would be significantly associated with concurrent and future child and family outcomes, including child functioning, behavioral adjustment, residential restrictiveness, and child and family satisfaction.

Methods

Sample

The current study focused on a federally-funded site that utilizes the wraparound approach to deliver services within its system of care and that employs the WFI 2.0 to assess wraparound fidelity. Participants in the final sample included 36 families with children experiencing emotional and behavioral disturbance for which the WFI was collected and for which outcome data from the national evaluation were available both concurrent to the fidelity assessment (within one month of the WFI) and longitudinally (six months after the WFI).

Measures

Wraparound fidelity. The Wraparound Fidelity Index (WFI) is an interview that measures the quality of wraparound services that a family receives on a case by case basis. The WFI is composed of brief, confidential telephone interviews that assess adherence to eleven core elements of wraparound using parent (P), youth (Y), and resource facilitator (RF) versions of the instrument. The WFI measures these elements by having each respondent rate agreement (on a 0-2 scale) with four items

that are regarded as essential for each element. Pilot tests of two different versions of the WFI have found good test-retest reliability and internal consistency for overall respondent scores, and significant patterns of association with an external expert's ratings of fidelity (Bruns, Ermold, & Burchard, 2000; Bruns, Suter, & Burchard, 2001).

Child and family outcomes. Outcome measures used in the national CCMHS evaluation that were included in the analyses included the: (a) Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1999), (b) Behavioral and Emotional Rating Scale (BERS; Epstein & Sharma, 1998), (c) a measure of residential restrictiveness and placement change, and (d) two items from the Family Satisfaction Questionnaire employed in the national evaluation (ORC Macro, 2000); the two satisfaction questions used included FSQ1, which asked the parent whether he or she was satisfied with services overall, and the FSQ7, which asked about their degree of satisfaction with the child's progress.

Procedure

At the study site, a research consortium of family members collect fidelity data, with fidelity assessments conducted every three months. National outcome measure data are collected at baseline and every six months after enrollment. Databases housing child and family characteristics, WFI data, and national evaluation outcome data were compiled, and unique family identification numbers were used to link datasets.

Data Analysis

Because of missing data across the three respondent forms of the WFI, associations between the families' total scores on the parent and resource facilitator forms of the WFI were independently associated with concurrently assessed and future outcome scores. In order to investigate the associations between fidelity and outcome data, first, simple correlational analyses using Pearson's r were conducted between Total WFI scores for each respondent and each outcome measure. Correlations were calculated with the WFI Total score, transformed by $1/(9-x)$ to achieve normality (except for the WFI-RF - CAFAS correlation, which needed no transformation). These correlations were conducted between the parent form of the WFI and the five outcome measures included in analyses at both Time 1 (concurrently assessed) and Time 2 (six months post-WFI assessment). However, because of low N s for correlations between the WFI-resource facilitator form and the two satisfaction questions, scores on the resource facilitator form of the WFI were only associated with the three other outcome measures. Thus, a total of $(5 \times 2) + (3 \times 2) = 16$ correlations were calculated.

It was planned that if these initial analyses yielded results suggestive of a relationship between fidelity and future (six-month) outcomes, a set of stepwise regression analyses would be conducted. In these regressions, outcome scores at Time 2 would be regressed onto WFI scores, controlling for scores at Time 1 to investigate the relationship between fidelity and future outcomes, controlling for baseline scores on outcomes.

Because the current study is largely exploratory, corrections for Type 1 error were not undertaken for either the correlational or regression analyses, in favor of a "weight of evidence" approach to interpretation that takes into account the pattern of significant (one-tailed) associations.

Results

Correlational Analyses

Table 1 displays Pearson r correlations between the WFI parent and resource facilitator forms and the outcomes in question at both Time 1 (concurrent to WFI administration) and Time 2 (six months post-WFI administration). As shown, WFI-parent scores were significantly correlated with service satisfaction at Time 1, $r(18) = .44, p < .05$, and satisfaction with the child's progress at Time 2, $r(15) = .47, p < .05$, and marginally ($p < .1$) significantly associated with child behavioral strengths at Time 1,

$r(21) = .34, p < .1$. WFI-resource facilitator scores were significantly associated with restrictiveness of living scores at both Time 1 and Time 2, $r(17) = -.70, p < .001$, and $r(17) = -.71, p < .001$, respectively, and with behavior at Time 2, $r(15) = .79, p < .001$. WFI-resource facilitator scores were also associated at $p < .1$ with behavior at Time 1, $r(15) = .31, p < .1$, and with child functioning as measured by the CAFAS at Time 1, $r(17) = .35, p < .1$. All correlations noted above were in the hypothesized directions, with fidelity negatively correlated with restrictiveness of living and functioning scores and positively correlated with behavioral strength scores and satisfaction.

Table 1
Pearson Correlations between Wraparound Fidelity
Scores from the WFI-Parent and WFI-Resource Facilitator
Forms and Outcomes at Time 1 and Time 2

		WFI Respondent	
		Parent	Resource Facilitator
BERS	<i>N</i>	21	15
	Time 1 correlation	.34*	.37*
	Time 2 correlation	.12	.79***
CAFAS	<i>N</i>	31	18
	Time 1 correlation	.04	-.35*
	Time 2 correlation	-.01	-.20
FSQ1	<i>N</i>	18	
	Time 1 correlation	.44**	
	Time 2 correlation	.34	
FSQ7	<i>N</i>	15	
	Time 1 correlation	.23	
	Time 2 correlation	.47**	
ROLES	<i>N</i>	32	17
	Time 1 correlation	-.06	-.70***
	Time 2 correlation	-.21	-.71***

NOTE: BERS = Behavioral and Emotional Rating Scale; CAFAS = Child and Adolescent Functional Assessment Scale; FSQ1 = "Over the past 6 months, what has been your overall satisfaction with services?"; FSQ7 = "Over the past 6 months, how satisfied have you been with the progress your child has made?"; ROLES = Restrictiveness of Living Environment Scale. Correlations not calculated for the WFI-RF and FSQ1 and FSQ7 because of inadequate *N*s.

* $p < .1$; ** $p < .05$; *** $p < .001$

Regression Analyses

Because of the number of significant correlations found, a series of six stepwise regression analyses were then conducted predicting outcomes at Time 2 after first accounting for scores at Time 1. Because of low *N*s for the WFI-RF and the 2 satisfaction questions and the lack of change in restrictiveness from Time 1 to Time 2 for the sample, these analyses were restricted to the BERS and CAFAS for the WFI-RF and the BERS, CAFAS, and two satisfaction questions for the WFI-Parent form. Of these six regressions, two significant results were observed, both in the hypothesized directions: WFI-RF scores significantly predicted change from Time 1 to Time 2 for behavioral strength ratings as assessed via the BERS, $t = 6.03, p < .001$, while WFI-Parent scores significantly

predicted change in the parent's satisfaction with the child's progress $t = 1.91, p < .1$. The results of the other four regressions were non-significant.

Discussion

It has been suggested that within children's mental health, the relationship between treatment components and principles underlying service system delivery may be the most important predictor of child and family outcomes (Burns, Hoagwood, & Mrazek, 1999). However, for most community-based interventions, this hypothesis has not been adequately investigated. The results of the current study suggest that maintaining fidelity to the wraparound process while delivering services is associated with a range of child and family outcomes. Using a "weight of evidence" approach to interpretation, we observe that, out of 16 correlations conducted, 15 coefficients were in the hypothesized direction, with five reaching statistical significance at $p < .05$ and an additional three correlations reaching marginal levels of significance at $p < .1$. In addition, regression analyses showed that wraparound fidelity at Time 1 predicted change in child behavioral strengths and change in parents' perception of the child's progress. No significant associations opposite the hypothesized direction were found among correlational or regression analyses.

Though the evidence indicates that WFI scores account for variance in outcomes, interpretation of the pattern of results is far from clear-cut. However, some trends are evident:

- Both the resource facilitator's and the parent's perception of wraparound fidelity were found to be significantly associated with several of the dependent variables. However, the resource facilitator scores on the WFI were more strongly associated with the outcomes assessed.
- Fidelity was found to be equally strongly associated with both concurrently assessed outcomes as well as future outcomes. However, results of correlations—and the regression analyses—suggest that the WFI may be able to "predict" changes in outcomes such as behavioral adjustment and parent perceptions of the child's progress.
- Finally, with respect to the types of outcomes that fidelity may be related to, it is apparent that service outcomes such as satisfaction and residential restrictiveness are well-associated with fidelity as assessed via the WFI. This is in keeping with other systems-of-care research that has showed these types of outcomes may be most sensitive to the development of systems of care (cf., Bickman, 1999). Nonetheless, the results of the current study also indicate that outcomes such as child behavior may be predicted by how well providers adhere to the core principles of wraparound.

Overall, the findings support the hypothesized association between intervention fidelity and outcomes for children and families. Given that the majority of CMHS-funded systems of care utilize the wraparound approach to deliver services to at least some of their families, this should reinforce calls to ensure fidelity to the wraparound approach and to community-based interventions generally. The results also provide support for the construct validity of the WFI.

In conclusion, the current study points even more emphatically to the need for further research on the importance of intervention fidelity. Next steps should include the use of a larger sample—and more complete datasets—that will allow for multi-informant WFI scores to be constructed, including parent, resource facilitator, and youth perceptions from the same family. Use of such combined scores have been found to be much more stable and reliable in previous research (Bruns, Ermold, & Burchard, 2001), and thus will be more likely to illuminate how much variance is accounted for by wraparound fidelity, and which outcomes are most impacted by fidelity. More powerful datasets will also allow for the entry of child and family factors into analyses, as well as an investigation of which aspects of the wraparound approach are most important to achieving positive outcomes for children and families.

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Children with Reported Histories of Sexual Abuse: Utilizing Multiple Perspectives to Understand Clinical and Psychosocial Profiles

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Introduction

An estimated 1.3/1000 children between the ages of birth to 18 have been sexually abused (National Clearinghouse on Child Abuse and Neglect Information, 1999). For some children, child sexual abuse is associated with higher rates of mental health and behavioral problems (for a review of the literature and meta-analysis see Kendall-Tackett, Meyer-Williams & Finkelhor, 1993; Rind, Bauserman & Tromovitch, 1997). From a service provider perspective, how children with histories of sexual abuse compare to other children in a clinical population may be of particular interest. Effective planning and case management services for children with sexual abuse histories necessitates a thorough understanding of their psychosocial profiles, including demographic, diagnostic and psychosocial information.

Analyses were based on data from the national evaluation of the Comprehensive Community Mental Health Services for Children and their Families Program, which was funded through the Child, Adolescent and Family Branch of the Center for Mental Health Services (CMHS) of the federal Substance Abuse and Mental Health Services Administration. In 1993 and 1994, 22 sites were awarded grants to develop system of care services in their communities. Each was developed to be a family driven, multi-agency, and community based system of care for children with serious emotional disturbance and their families (Center for Mental Health Services, 1997, 1998, 1999, 2000).

Data from the national evaluation offer an opportunity to better understand, in a large national multi-site clinical sample, the specific challenges and characteristics of children who have reported sexual abuse as compared to those who have not. This investigation replicates and expands upon earlier research, with its primary purpose to simultaneously investigate youth, caregiver and clinician reports of behavior and functioning in an attempt to identify their unique contributions to the psychosocial profile of children who report histories of sexual abuse. (Beitchman, Zucker, Hood, DaCosta & Akman, 1991; McGee, Wolfe, Yuen, Wilson, & Carnochan, 1995).

Method

Data Source & Sample Selection

Data for the national evaluation of the Comprehensive Community Mental Health Services for Children and Their Families Program were collected between 1994 and 1999 (Center for Mental Health Services 1997, 1998; Holden, Friedman & Santiago, 2001). Current study participants were selected from children and families participating in the longitudinal outcome study component of the national evaluation ($N = 3,479$). Outcome study criteria required that the child be between the ages of five and 17.5 years at the time of service referral, have no siblings enrolled in the evaluation, and that the caregiver had consented to their own and their child's participation in the study. In addition, criteria for inclusion in the current study sample required complete data on all variables of interest: (a) gender; (b) age; (c) race/ethnicity; (d) primary diagnosis; (e) reported history of sexual abuse; (f) challenging individual life experiences (i.e., history of sexual abusiveness, physical abuse, having a sibling in foster care, psychiatric hospitalization, running away, drug or alcohol abuse, and suicide attempts); (g) Child and Adolescent Functional Assessment Scale (CAFAS) scores (Hodges, 1994); (h) Child Behavior Checklist (CBCL) scores (Achenbach, 1991a); and (i) Youth Self Report (YSR) scores (Achenbach, 1991b) for children aged 11 and over. Data were collected from the caregiver and child through self-report or interview at entry into service.

Data Analysis

Descriptive analyses were first performed to quantify bivariate, unadjusted associations between reported history of sexual abuse and psychosocial profiles. Next, logistic regression was used to identify significant correlates and to account for the difference in odds of reported history of sexual abuse. The first regression included all subjects and entered all CAFAS and CBCL subscales as well as all life challenge variables (i.e., history of sexual abusiveness, physical abuse, having a sibling in foster care, psychiatric hospitalization, running away, drug or alcohol abuse, and suicide attempts). Based upon results generated via backward stepwise regression, a parsimonious model was identified. The second regression included all factors entered in the first regression with an additional inclusion of YSR subscale measurements for children 11 years and older (based upon age requirements for completion of the YSR). Again, parsimony was established based upon backward stepwise regression. Variables retained in each final multiple logistic model were based upon significant contribution, measured by Z tests with a $p = .05$ cut-off point.

Results

Twenty-two percent ($n = 759$) of the children reported a history of child sexual abuse; however, reasons for referral were rarely related to sexual abuse. Children in the current study sample were referred for services from multiple sources. Mental health professionals (24%) were the most common referral source for youth in the current study sample followed by the schools (20%), family (17%), child welfare (15%) and juvenile justice (11%). Other sources accounted for 13% of the referrals. Psychosocial indicators were assessed for significant differences in odds of sexual abuse history, and selected results are selected below.

The first parsimonious logistic model explaining the difference in report of previous child sexual abuse includes all youth in the sample ($N = 3,370$). Compared to males 11 years of age and older, females were more than four times as likely to have a reported history of sexual abuse. Males under the age of 11 were 70% more likely than older males to have a reported history of sexual abuse. An increased likelihood of reported sexual abuse is associated with each of the seven life challenging experiences. Youth rated moderately to severely impaired on the CAFAS self-harm scale were 33% more likely to report a history of sexual abuse compared to youth without self-injurious challenges. A similar increased odds of reported sexual abuse was observed for youth with impaired behavior toward others. Additionally, caregiver-reported social problems on the CBCL were associated with a 25% increased odds of reported history of sexual abuse.

In order to incorporate data from the YSR, the second analysis was restricted to children 11 years and older ($n = 1,733$). Each life challenging experience remained significantly associated with sexual abuse history as did clinician-rated self-harmful behavior and caregiver-rated social problems. Child reports additionally indicated that somatic problems were related to a 60% increased likelihood of previous sexual abuse, while child reports of aggression problems were related to a 51% increased likelihood of sexual abuse.

Discussion

The critical findings from this study involve the unique contributions of the caregiver, child, and clinician perspective in the compilation of a comprehensive psychosocial profile for youth entering system of care services. Sensitivity, confidentiality, and willingness to disclose child sexual abuse and related issues are very real points of consideration during intake assessment. The results of the current study indicate however, that these three perspectives may uniquely contribute to a comprehensive clinical and psychosocial profile. If service providers are to most effectively plan case management services for children with reported sexual abuse histories, multiple perspectives of behavior problems and ratings should be considered a necessity rather than a luxury.

Future studies may consider comparative analyses of individualized service plans and case management procedures that were informed via single versus multiple reporting perspectives. In addition, studies involving the comparison of children who have reported histories of sexual abuse with children who have combined reported histories of sexual and physical abuse would enhance the understanding of psychosocial profiles at intake in an effort to develop and implement individualized service plans.

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The Use of Concept Mapping to Build a Shared Service Strategy

**Svetlana Yampolskaya
Teresa Nesman**

Introduction

Among the most important contributions that program evaluation can make to program planning is increased understanding of the program's underlying dimensions, along with identification of existing gaps and areas of strength (W. K. Kellogg Foundation, 1998; Shern, Trochim & LaComb, 1995). These were the goals of an evaluation of the Florida Diagnostic and Learning Resources System (FDLRS) at the University of South Florida that assisted the FDLRS with building a shared service strategy among staff. The FDLRS program was founded to provide interdisciplinary evaluations and intervention recommendations for multi-need children in Florida. Child evaluations are carried out by a multidisciplinary team of professionals who employ a holistic approach that includes integration of educational, psychological, health, language or other issues affecting the child and family. The team also promotes the use of complex interventions that consider not only the child, but also his/her social and physical environments.

To assure sustainability and accountability of the FDLRS program, a process of defining the shared services strategy was initiated by the FDLRS team. As part of this process, the team requested assistance in assessing the structure of their services, the processes underlying service delivery, and areas of strength and weakness. An assessment of FDLRS was carried out in March of 2001 to address the following goals: (a) identify key elements of the program, (b) describe relationships between program elements, (c) identify interpretable dimensions of the program, (d) determine the perceived importance and effectiveness of services and e) identify categories of services. A concept mapping technique was employed to address these goals (Johnsen, Biegel & Shafran, 2000; Trochim, 1989).

Method

The concept mapping procedure with FDLRS began with a structured brainstorming session in which participants ($N = 7$) were encouraged to generate as many statements as possible about delivered services. A focus statement was used to facilitate the generation of statements and to guide their production by predetermined criteria. The brainstorming session resulted in 103 statements. During the second session, participants manually sorted statements into piles based on similarity and rated each statement on importance and effectiveness using a five point scale. Sociodemographic characteristics were also collected, including each participant's profession and educational level. Participants consisted of seven team members representing various disciplines that address learning, physical health, and mental health of children.

Concept mapping analysis includes a combination of multidimensional scaling (MDS) and hierarchical cluster analysis that produces a pictorial representation of participants' statements in two-dimensional space. As a result of the analysis, ideas (i.e., activities, services, etc.) that are perceived to be similar by the group are positioned close to each other on a map and ideas perceived as dissimilar are located further apart from each other. The procedure of grouping similar ideas results in non-overlapping categories called clusters (Trochim, 1994).

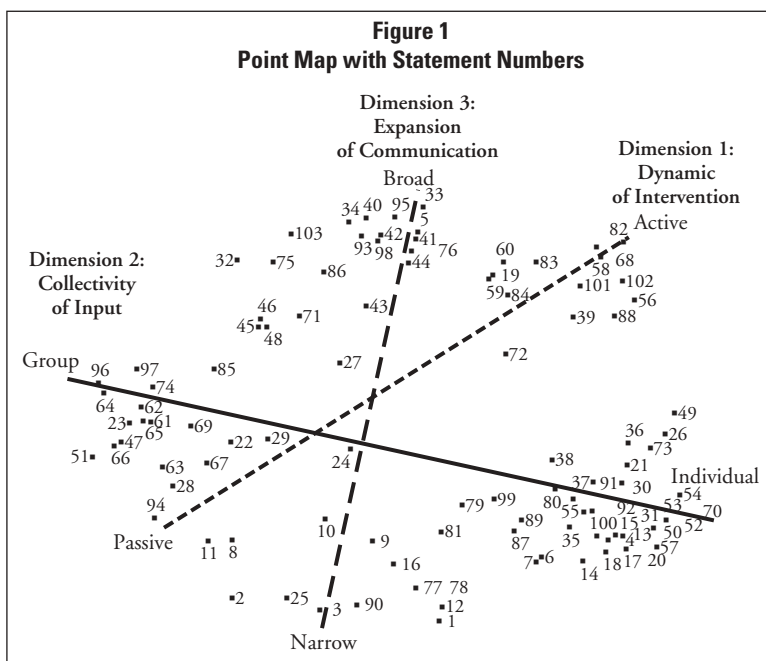
Results

The point map shown in Figure 1 was created as a result of the two-dimensional solution of the MDS analysis and had a final stress value of .269. The numbers on the map represent the order in which statements were generated. The point map illustrates the program elements in relationship to each other, with smaller distances reflecting more similarity between statements as perceived by the

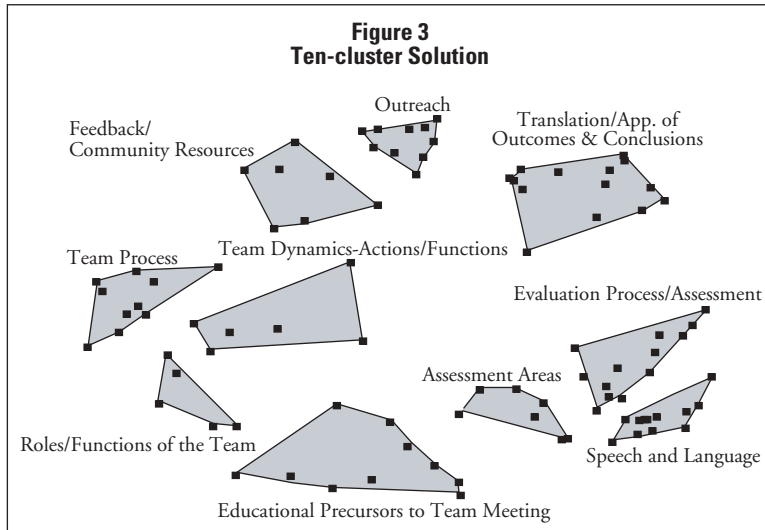
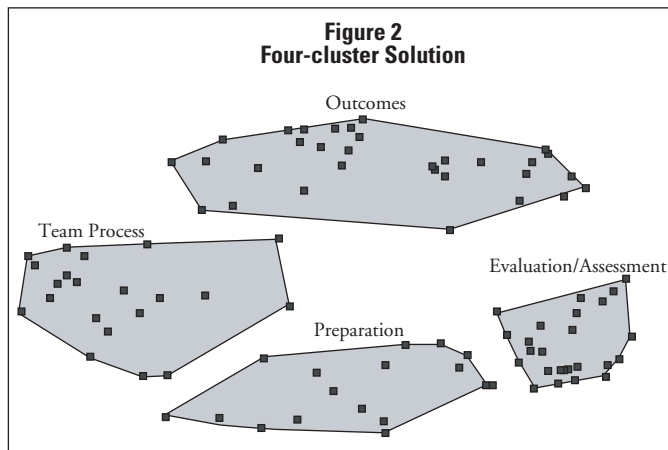
participants and larger distances reflecting less similarity (Rosenberg & Nelson, 1968). For example, statements 96 (“modify the team as necessary to be more responsive to family and educator needs”) and 70 (“provide neurological examination when requested”) are positioned on opposite ends of the map (i.e., perceived as conceptually different), while statements 96 and 64 (“provide an opportunity for team work in progress”) are located very close to each other (i.e., perceived as conceptually alike).

The point map was analyzed to determine the scope of services and potential gaps identified by the participants. The scope of services that were identified included categories such as: (a) evaluation and assessment of the child and the family, (b) evaluation and assessment of the child’s school environment, (c) consultations and recommendations for multidisciplinary interventions, and (d) providing linkages to community resources for the family. Through map analysis, feedback, and discussions, it was determined that a gap exists in services that provide follow-up assessment of the child and update recommendations. Discussions also revealed the need to further consider how team recommendations would match with resources that are available in the community from which the child was referred.

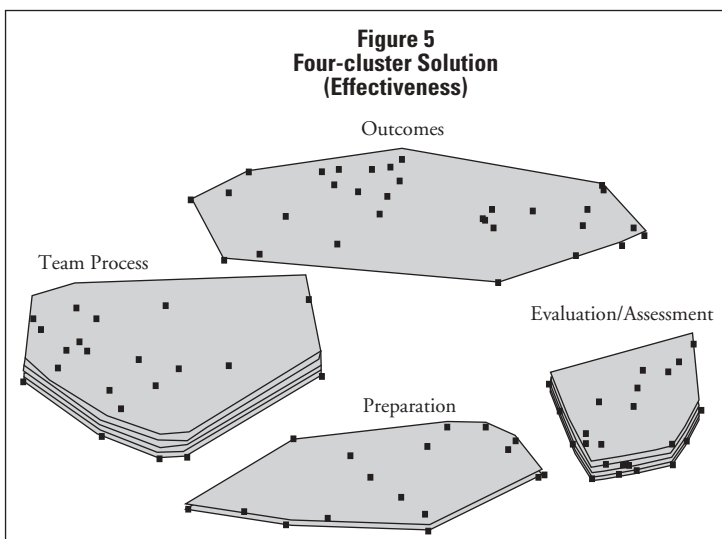
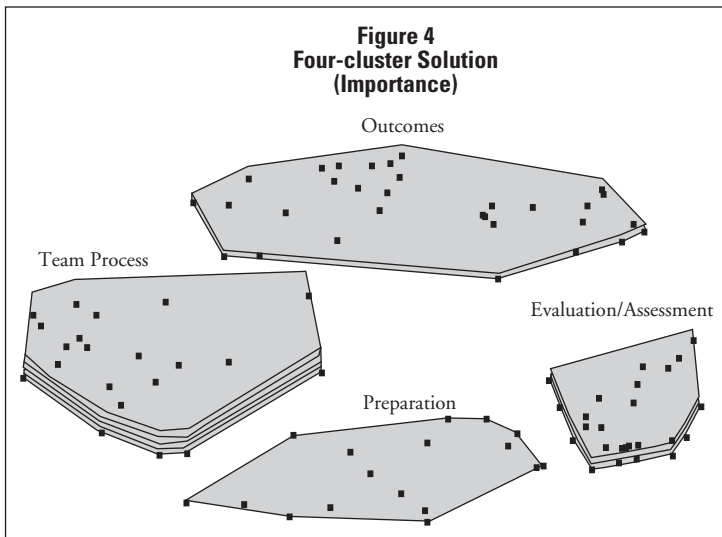
Figure 1 also shows dimensions within services provided by FDLRS, as identified by geographical placement of items in two-dimensional space. Specifically, *Dimension 1* represents the “dynamic of intervention,” with initial interventions that involved passive dynamics (i.e., gathering records, observing, clarifying expectations and concerns, etc.) on the bottom of the map, progressing to interventions that involve more active dynamics (i.e., making recommendations, educating the family, and assisting educators, etc.) shown at the top right of the map. *Dimension 2* was identified as the “collectivity of input” provided by the team. Collectivity of input progresses from the bottom right with initial child and family evaluations made by members of the team individually, to increasing the number of the team participants contributing to a whole team process, as shown on the middle left of the map. *Dimension 3* emerged in the configuration that was characterized as “expansion of communication.” This dimension progresses from the bottom of the map, showing a narrow range of communication that is limited to those people who are most closely linked to the child (family and teachers), moving to the top of the map where communication expands to include referring agents and a broader array of community contacts. These dimensions provided a structured picture of the processes underlying service provision, which could then be used to further plan a shared service strategy.



As shown in Figure 2, an examination of clusters of services that were determined by hierarchical cluster analysis resulted in the selection of a four-cluster solution as the most useful representation of the data (Johnsen, Beigel, Shafran 2000). Clusters were labeled “Preparation,” “Evaluation/Assessment,” “Team process,” and “Outcomes.” Examining a ten-cluster solution (Figure 3) shows sub-categories of elements of services within each of the main clusters.



Levels of importance and effectiveness were shown as layers within clusters (Figures 4, 5). Effectiveness of services as perceived by FDLRS staff showed strengths in the areas of assessment and evaluation and team process elements and relative weakness in the preparatory and follow-up elements of services (outcomes). The clusters perceived as most effective were also perceived to be most important. However, the outcomes cluster, which was perceived as being relatively important, was rated low in effectiveness. These findings suggest that the team might consider developing shared strategies that increase effectiveness in the area of service outcomes and follow-up.



Conclusion

Multidimensional scaling is a relatively naturalistic procedure that is simple and economical for measuring perceived similarities for large numbers of items (Rosenberg & Nelson, 1968; van der Kloot & van Herk, 1991). In combination with hierarchical cluster analysis, it was useful for identifying key elements of FDLRS services, relationships between these elements, underlying dimensions of services, categories of services, and perceived importance and effectiveness of services. It was also useful in identifying gaps in services and strategies, specifically, the lack of mechanisms to assure availability of resources that might be required for carrying out recommendations of the FDLRS team. This information is important for planning and for building consensus about service strategies and assessment procedures. Recommendations for further uses of concept mapping include making comparisons between FDLRS team perspectives and family and provider perspectives in order to further build a shared strategy among stakeholders.

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A Knowledge Transfer Infrastructure for Screening and Outcome Measurement in Children's Mental Health

Introduction

Health services research strives to put knowledge to work in ways that significantly improve the health delivery system, and ultimately the health of the population. To ensure that this is realized, it is necessary to increase the capacity of researchers to disseminate their research findings in ways easily digested by policy- and decision-makers, the media and the general public, as well as other academics.

Yet, the transfer of knowledge from one entity to another involves more than the dissemination of information in easily assimilated form. Change does not take place unless there are active efforts to help those who would potentially adopt these changes to modify their existing programs and practices. In this sense, the task of disseminating information is located within the larger context of the overall cycle of innovation and change (Backer, 2000; Morrissey et al., 1998).

Here, we summarize our research efforts to develop a knowledge transfer (KT) infrastructure. Through collaboration with policymakers, health care representatives, and other partnerships, the KT program seeks to facilitate research-based decision-making in Canadian healthcare settings by conducting research on the transfer of knowledge from researchers to practitioners. This program developed alongside a provincial-wide initiative to screen for morbidity and to assess outcomes for children receiving mental health services in Ontario. The Ontario initiative to screen for morbidity and assess outcomes is now in its third and final year, and the development of the KT infrastructure has facilitated the organizational changes necessary for its implementation. In this paper we review the history of the Ontario initiative and describe the KT study procedures and results.

Overview

The Ontario Initiative: Goals and Early History

In 1999, the Ontario ministries, responsible for delivering mental health care to children and families, developed a plan that would systematically screen for mental health disorders and assess outcomes for the approximately 120,000 children who receive mental health services annually (Children's Mental Health Ontario, 1999). Based on recommendations from the field and a review of potential measures, the ministries settled on the use of two, complementary measurement tools; the Brief Child and Family Phone Interview (BCFPI; Cunningham, Pettingill, & Boyle, 2000) and the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1990). Two groups were funded for over three years (2000-2003) to carry out the training and implementation of these instruments. Training for the BCFPI is the responsibility of a research team from McMaster University, in partnership with Children's Mental Health Ontario, a community-based agency association that supports children's mental health agencies. CAFAS training is the purview of a collaborative group called CAFAS in Ontario, which is comprised of health systems researchers from the Hospital for Sick Children and clinicians from six children's mental health agencies.

The CAFAS and BCFPI databases generated by the Ontario initiative promise to be an extremely rich source of data with tremendous potential to increase our knowledge of children's mental health and how best to deliver services. To reach this potential, researchers and decision makers must communicate with each other and, most importantly, must have a certain degree of shared knowledge. Policy- and decision- makers must be familiar with the two measures so that they can absorb the research findings and make informed policies and decisions regarding mental health service delivery for children. In addition, for the research information to be relevant to key stakeholders, current and

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preferred formats and venues for communication between researchers and policy-makers need to be identified to optimally define the pathways for research knowledge to reach beyond the academic community.

Knowledge Transfer: Relevance and Project Goals

Currently, training and implementation activities for the measurement initiative represent a linear process. In order for this initiative to be successful—defined as full use of both instruments by all participating agencies—a knowledge transfer framework must be established. This framework is essential to support implementation of the instruments, encourage organizational change, and ensure that data and information are disseminated in a manner that will enable service organizations, mental health researchers, and policy- and decision- makers to increase their knowledge base, and make evidence-based decisions regarding mental health service delivery.

The development of a KT infrastructure involved the following activities. First, we developed an inventory of health systems managers and policymakers associated with children's mental health. The inventory was intended to serve as a basis for the distribution of information regarding the initiative. Second, we prepared, executed, and evaluated a Learning Institute that was attended by decision-makers, service managers, and family stakeholders from several sectors (mental health, child welfare, education, corrections). The purpose of the Learning Institute was to disseminate general information about the CAFAS and BCFPI measures, i.e., what they do, why they are important for children's mental health, and how they are relevant to the stakeholder audience. Participants were asked to evaluate the Institute to determine whether or not it was a suitable format and venue for the sharing of information to a variety of stakeholders. Third, we evaluated the needs of decision-makers and other key stakeholders regarding the type, format, and venue for receiving research results. Identification of the current and preferred formats and venues for communication between researchers and these key stakeholders allowed for the identification of pathways for research knowledge that extend beyond the traditional academic realm. Finally, we identified the elements of our KT infrastructure that might support the measurement initiative.

Methodology and Results

Inventory of key stakeholders. The goal here was to develop a list of health systems managers and policy makers in children's mental health and related fields. The inventory would then serve as the basis for the distribution of information related to the initiative. The method involved requesting nominations of individuals who would be interested in the Ontario initiative from our project steering committee members (i.e., collaborators). A fan out method was used whereby those nominated were contacted and asked to nominate others. This was done until we achieved saturation (i.e., we began to receive the same names). The result was an inventory that included stakeholders from media, consumers, practitioners, and decision-makers from education, social services, health, and corrections.

Literature review. We undertook a thorough review of the literature in knowledge transfer in order to inform our infrastructure and implementation support activities. The literature on knowledge translation spans a number of disciplines, including but not limited to management, rehabilitation, education, sociology, psychology, technology, and marketing. It is replete with differing terminology. We included 12 terms in our search of 23 databases. For published literature, we limited our database search to peer-reviewed articles published between 1980 and 2002 that we considered to be relevant to children's mental health. Relevant work in the grey literature was accessed through keyword searches on Google and Yahoo search engines. We learned from this critical review that no single dissemination method will be effective in all situations, that personal contact is critical to success, and that publishing research in academic journals is not sufficient for the purpose of implementing the Ontario initiative. Additionally we learned that early and ongoing involvement of relevant stakeholders in the conceptualization and conduct of research is the best predictor of the application of our findings. Ann

annotated bibliography can be found in our online report at <http://www.cafasinontario.ca/html/related-knowledge.htm>.

Learning Institute. The first goal of the learning institute was to provide stakeholders with an overview of the CAFAS and BCFPI tools. It was assumed that general knowledge of the instruments was needed in order for decision-makers to generate questions and formulate solutions that could then be translated into important policy and service delivery decisions. Second, we sought to evaluate this format as a suitable and desired method for transmission of knowledge to a wide variety of stakeholders. The method involved presentation by both CAFAS and BCFPI teams regarding the essential elements of the measurement tools. The Institute was attended by family members, decision-makers and service practitioners. Results of our Institute evaluations indicated that a majority of respondents rated the material presented as very highly relevant to their jobs. They also reported a very high level of satisfaction with the half-day length of the Institute and the group presentation format for knowledge transfer.

Evaluating needs regarding the type, format, and venue for receiving research results. We sought to understand how stakeholders acquire, assess, adapt, and apply research data in order to determine the preferred formats for access. This information was seen as critical in informing our KT and implementation support activities. The method involved conducting eight focus groups with decision-makers from children's mental health, corrections, education, child welfare, as well as media, consumers, and practitioners. Results of the focus groups are summarized in Table 1.

Table 1
Emerging Themes

<i>Research Activity</i>	<i>Issue</i>	<i>Theme</i>
Acquire	Barriers to accessing research information	Time required to seek and review Too much information Information is unavailable Lack of resources Lack of comprehension
	Sources of research information	Journal publications Conference, forums Press releases Advisory committees Newsletters Organizational memberships Researcher on staff
Assess	Methods of assessing research information	Seek second opinion Contact experts Examine source/affiliation Seek consultation Supported by credible other Knowledge of research
Adapt	Barriers to adapting information	Message needs to be simplified Need to identify relevance and implications Need to provide summaries Need to make material more readable
Apply	Barriers to applying research information	Uncertain how to link research to practice Resistance to change Research focus contrary to professional ideology Lack of statistical knowledge Research results not generalizable Insufficient information to support implementation Competing research results

A survey was then conducted based on the focus group findings. This was done in order to validate the themes that were uncovered with a larger and geographically representative audience. The method involved constructing a survey derived directly from the focus group themes. Surveys ($N= 468$) were mailed to 125 children's mental health agencies, yielding 93 responses. Results of the survey supported the themes that emerged in the focus groups.

The barriers and facilitators to acquiring, assessing, applying and adapting research-related knowledge in children's mental health are not inconsistent with what others have reported in the literature. The extent to which one acquires research information is related to the relative importance it holds for that individual or organization. The motivation to acquire and the methods used vary. It is clear, however, that service providers in children's mental health and related fields do not do this enough. When there is an attempt, it comprises tapping the research knowledge of managers who do little better in this regard or reading journal articles that are known to be feeble in their knowledge transfer capabilities.

Facilitators to acquiring research information are more common among policy and decision-makers and media who cite such strategies as networking and personal contacts and reliance on Internet and electronic media. Factors such as lack of time, lack of available information, resistance to sharing, conflicting findings, and incongruence with practice are commonly identified as barriers by service providers. Service providers are still looking to the traditional methods of acquiring information: attending conferences and reading journal articles. They have much to learn from media and decision-makers with respect to more time efficient and successful knowledge transfer strategies. There is also more of a research culture in policy and media, something that is lacking in mental health practice. Availability of time and resources can help or hinder the utilization of related-related information. Lack of time is a common barrier, but one wonders if this relates to the level of importance given to related-related tasks. Champions are acknowledged as useful but there need to be more of them. Moreover, champions require opportunities to share what they have learned and some measure of authority to make changes. Where related-related activities are valued — through the availability of personnel and funds — time is not an issue. We must consider how to change the relative importance given to research-related activities in the practice culture.

Although the capacity to utilize research information varies, many feel they are ill equipped to assess its value or apply new knowledge to practice in innovative ways. While decision-makers prefer to base their assessments on actual data where possible and media tend to go directly to the research source for clarification, service providers have few strategies and little knowledge in the area. Individual characteristics are partly at fault here: lack of research knowledge, lack of access, lack of authority to apply what is learned, etc. Increasing the level of knowledge sharing and communication among service providers can help us do better at assessing the value and applicability of research knowledge. Breaking down the silos can also improve our capacity to apply what research teaches us. Researchers have a role to play in ensuring relevance to practice in how they communicate their findings, and there have been some improvements in this area. Yet service providers continue to find much of research to be incongruent with practice and many findings contradictory. Here is where researchers, decision-makers, and practitioners can make improvements simply by coming together to sift through the literature and discuss their experience in practice. Together, we can develop a strategic plan for which treatment approaches to support based on the evidence about what works, for whom, and under what conditions. In the case of the measurement initiative, aggregate data will add to this body of research knowledge and can be used to inform mental health practice.

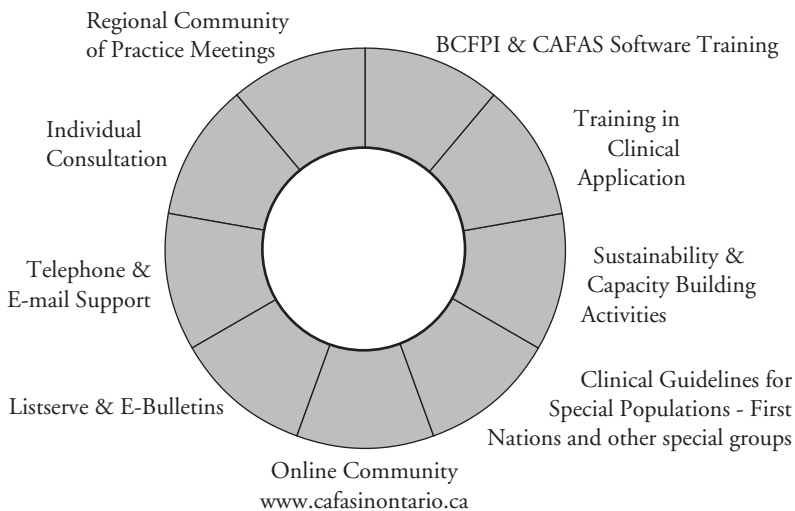
Conclusion

The information uncovered in this project was used to inform the knowledge transfer strategy for the measurement initiative. Our strategy involves a wide variety of dissemination formats and venues. Information regarding the initiative will be transferred in multiple formats. Web sites dedicated to the

use of each tool, in addition to face-to-face regional meetings, will provide access to support resources and to information regarding project developments, clinical applications, organizational experience and, eventually, findings from aggregate data. Other resources include clinical and technical support via telephone/email/in-person visits, and software training for select people in each agency (see Figure 1).

Ontario's screening and outcome assessment initiative is a complex and ambitious project. It presents tremendous possibilities for the development of knowledge transfer strategies that can support organizational change. The key is not simply to share what is learned from this initiative but to build the capacity for organizational change and to develop a community of practice that results in the use of the instruments to improve services for children.

Figure 1
Knowledge Transfer in Support of Implementation
and Organizational Change



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Using Outcome Data to Inform Practice

**Kendra Ray Stewart
Benjamin M. Ogles**

Introduction

There is evidence that psychotherapy for both children and adults is efficacious on average; that is, benefits exceed no treatment and placebo treatments when research is done in a laboratory setting (e.g., Smith, Glass, & Miller, 1980; Weisz, Weiss, Alicke, & Klotz, 1987). The Surgeon General's report on mental health (1999) states that all of the meta-analyses published between 1985 and 1995 regarding child and adolescent psychotherapy yielded similar results: outpatient therapy is highly effective, regardless of the particular disorder to which it is applied. Additionally, it is clear that many of the individuals who participate in psychotherapy receive clinically meaningful benefits that are maintained for lengthy periods of time following treatment and that are not limited exclusively to the laboratory (Ogles, Lunnen, & Bonesteel, 2001). This scientific evidence provides a firm foundation for the application of therapy in practice, and it likely reassures therapists that their interventions are generally effective.

Unfortunately, treatment research provides relatively less useful information regarding the benefits of treatment for the individual client. Much of the treatment research is conducted in environments that differ from the typical clinic, using controls that alter the treatment sufficiently enough to raise doubts about the generalizability of treatment research to practice. In short, research is typically directed at two of the following three fundamental questions that can be asked about any treatment (Howard, Moras, Brill, Martinovich, & Lutz, 1996): (a) Does the treatment work under special experimental conditions?, (b) Does the treatment work in practice?, and (c) Is treatment working for this client? However, this third question is not directly addressed by the majority of psychotherapy and mental health service studies and reviews.

Although this third question is not yet adequately addressed in the literature, clinicians themselves can focus on making outcome assessment more useful for informing practice by determining how best to use the information that is obtained during the assessment (Smith, Fishcher, Nordquist, Mosley, & Ledbetter, 1997). When implementing outcome assessment procedures in an outpatient practice, the data can be used to inform the initial assessment, to monitor or track treatment progress, and to modify treatment based on current client progress. This summary will discuss how outcome measures can be incorporated in general practice on the individual client level.

Initial Assessment

Although the primary purpose of using an instrument to provide outcome data at intake is to gather baseline data from which to compare future administrations of the instrument, the data are also useful for the initial assessment. The initial administration of an outcome measure can provide information regarding the client's initial level of severity, critical needs, target areas for focus, and strengths.

Overall severity. Overall ratings of initial severity can be compared to normative data on the instrument to assess the client's level of distress in relationship to other client groups (e.g., inpatient samples, outpatient samples, community samples). Some instruments also provide ranges of scores that indicate whether the client's overall distress falls in the mild, moderate, or severe range. Importantly, initial level of severity may be predictive of the needed intensity or duration of treatment. If clients have a mild level of overall distress, they may be referred to brief therapy. Clients who register extremely high scores may need services in addition to outpatient treatment such as hospitalization, day treatment, pharmacotherapy, or a host of other treatment options. Other information should also be utilized when making treatment decisions of this nature, as a single measure from a single

informant may not be reliable. With children, in particular, there are often discrepancies between different informants' ratings of the severity of pathology.

Critical needs. Critical items are those questions on any outcome measure that would draw clinical attention if they were endorsed by the client, regardless of the overall problem severity score. Items that assess suicidal ideation, homicidal ideation, drug usage, lawbreaking behaviors, and other areas of key concern would represent critical items on the typical outcome measure. It is extremely important that clinicians pay attention to the critical items as they often are related to issues of personal safety for the client, the client's family, or others in the client's environment. Even if a client has no significant scores on an overall measure or outcome subscale, elevated critical items may warrant clinical attention and treatment in their own right. Investigating client endorsement of critical items can also be helpful in formulating a treatment plan. For example, clients who endorse an item related to suicidal ideation will need more frequent assessment of current thoughts, closer monitoring regarding session-to-session mood, and appropriate interventions.

Treatment Targets. By examining the items on an outcome measure, the clinician may identify key target problems that can be used on the treatment plan. The ratings on those items over time may also serve as the established outcome for the target. For example, a client with a total score in the moderate range may endorse a cluster of items related to depression at the high end of the item-scale (e.g., 4 or 5 on a 5-point scale). The clinician can note these particular items as potential targets for treatment, discuss them with the client during the initial interview, and potentially use the selected items as individualized measures of change.

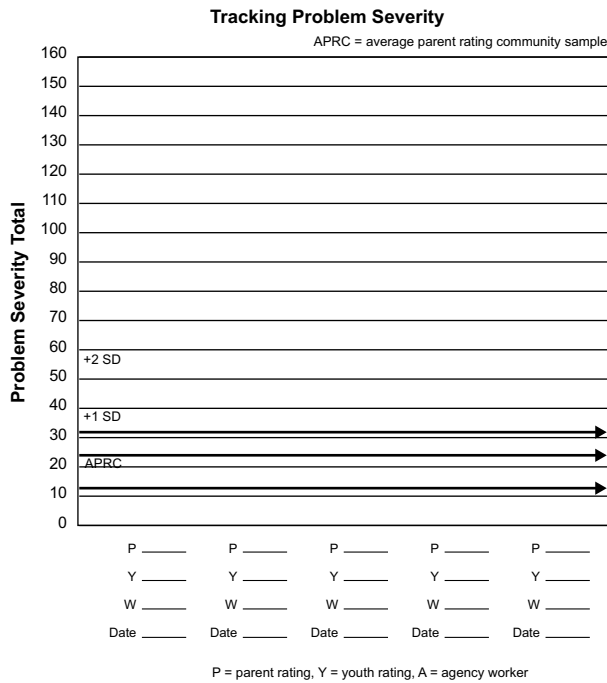
Strengths. Although it is certainly informative and useful to investigate problem areas for clients through outcome measures, it is equally important to focus on strengths that the client displays. Some outcome measures may provide information regarding functional strengths. If a client responds favorably to any or all of these items, the clinician has access to some obvious potential client strengths. In some public services, the identification of client strengths is a mandated part of initial assessment. As a result, the use of the outcome measure in this way facilitates the required clinical assessment.

Monitoring Treatment Progress

When baseline measures for an individual are noted and when adequate controls exist throughout treatment, the patient's outcome may be studied in a quantitative manner with prior performance serving as his or her control group. Each patient can serve as a single-case study for the clinician to evaluate (Roth & Fonagy, 1996). Clinicians can monitor client scores on an outcome measure and note if a client continually worsens or improves after one or several sessions. The actual mechanics of tracking change can be facilitated by standard reports that are generated electronically by entering the outcome data into a database each session or by hand scoring and plotting the data on graphs. For example, Figure 1 displays a problem severity graph that is included in the Ohio Scales manual (Ogles, Melendez, Davis, & Lunnen, 1999). Notice that the lines below the horizontal axis include a place for parent, youth, and agency worker ratings of problem severity and for the date. Since this instrument has forms for multiple parallel sources, the progress on all three forms can be charted on the same graph.

It may also be useful to selectively track specific problem areas that were identified for clinical work. This procedure can supplement the examination of total score changes over time. For example, a client may rate the following three items on the Ohio Scales as a 4 (*most of the time*) at intake: arguing, lying, and skipping school. The clinician can examine the client's responses to these items for evidence of improvement in an individualized manner.

Figure 1
Ohio Scales Problem Severity Tracking Form



Modifying Treatment

Clinicians can administer various measures at intake and over time, not only to track client progress, but also to guide treatment and to alert themselves to problems that may be arising. With the knowledge from databases and norm groups, clinicians can obtain feedback regarding the client's current progress in relationship to the way that treatment should be progressing, normatively speaking. Furthermore, in the most difficult of cases, with clients who do not improve at first, clinicians can see the degree to which treatment is deviating from the expected course, and changes can be made. In addition, the information can be used by others (e.g., clinical supervisors or insurance companies) outside of treatment to manage the treatment through a review of client progress. For example, a clinical supervisor could review a therapist's caseload through examination of all client outcome data and could select cases for review based on failure to make expected progress.

In summary, outcome data in aggregate is not only useful within mental health services research and evaluation, but can also be used on a case-by-case basis with the individual child or family when integrated into routine practice. The outcome data can be used to inform the initial assessment, to track change during treatment, or to inform clinical supervisors (or other outside sources) regarding treatment progress.

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Brief Symposium

A Strengths-Based Tool to Guide Collaborative Partnerships with Families and Provide Accountability within Systems of Care

Symposium Introduction

This brief symposium presented a description of the development of the Child and Adolescent Needs and Strengths (CANS) information integration tool and how it is used to: (a) guide decision-making for planning services, (b) guide strengths-based individual service planning, and (c) improve quality through outcome measurement.

The first paper discusses a needs-based planning study for children's services in New York state, and provides data gathered on the CANS to inform the study. The second paper describes how the CANS and a new measure of treatment fidelity were combined to assess whether child service plans were individualized and strengths-based. The final paper reports on the CANS as a tool for evaluating the effectiveness of a program to provide juveniles in detention with intensive and individualized mental health services.

Chair

John S. Lyons

Authors

John S. Lyons et al.

Mary Beth Rauktis et al.

Gene Griffin et al.

A Needs-Based Planning Study for Children's Services in New York State

John S. Lyons & Linda Rosenberg

Introduction

In response to opportunities with new investments in children's mental health services, New York state commissioned a needs-based planning study to gain a better understanding of the relationships among the needs and strengths of children and families in the current system of care. Advocates had identified extended stays in state hospitals and waiting lists for residential treatment beds as significant problems to be addressed.

In an effort to identify the needs and strengths of children and families that would guide the planning process, New York State Office of Mental Health (OMH) funded a survey of the existing mental health service system for children. The goal of the OMH study is to develop an understanding of how the present system works and what types of needs are addressed by which services. OMH will use this study to develop long- and short-term strategies for financing, organizing, and delivering services that result in better outcomes for children and families.

Central to this planning study is a common conceptual model across child-servicing systems for understanding the complex interaction of child, family, and community needs and strengths that influence service utilization and outcomes. This conceptual model addresses child and family needs and strengths across life domains on critical dimensions that influence the need for services across child-servicing systems. The model includes the following dimensions: (a) clinical need, (b) child and risk safety, (c) community safety, (d) caretaker capacity, (e) care management needs, and (f) child and family/caretaker strengths.

The planning study was designed to determine the need/risk/strength profiles of children and families currently receiving services, to explore access and discharge pathways into and out of specific service types and to measure clinical and dispositional outcomes for specific service types. To date, the study has reviewed the needs and strengths of children and families receiving care within the existing system, and across a continuum of the following 10 program types:

- Outpatient Clinic Services (Clinic)
- Day Treatment (Day Tx)

- Home-based Crisis Intervention (HBCI)
- Community Inpatient Facilities (CIF)
- Intensive Case Management Services (ICM)
- Home and Community Waiver Programs (HCBW)
- Community Residences (CRCY)
- Family-based Treatment Programs (FBT)
- Residential Treatment Facilities (RTF)
- State Operated Inpatient Facilities (SIP)

Method

A stratified random sample was undertaken of 1,592 children in ten different state-wide programs. A record review was used to complete the Child and Adolescent Needs and Strengths for Mental Health challenges (CANS-MH; Lyons, et al., 2001). The CANS-MH is designed for use at two levels: for the individual child and family, and for a system of care. The CANS-MH provides a structured profile a child and family along a set of dimensions relevant to service planning and decisionmaking. Due to its modular design, the tool can be adapted for local applications without jeopardizing its psychometric properties. The Average reliability of the CANS-MH was 0.83 across 17 reviewers. Data on demographic variables, referral pathways, and dispositional outcomes were also collected.

Results

Key findings are presented in Tables 1 through 3. Table 1 presents the prior service histories of children receiving services in each of the ten programs under review. Note that many children in residential placements have no documented histories of receiving outpatient services. Table 2 presents the averages of the CANS-MH on each of its five dimensions (lower scores indicate greater strengths). It is noteworthy that these averages are consistent with the intensity and expense of the services, and that many of the intensive community-based services address children with high needs. Table 3 presents reasons for leaving services. Nearly two-thirds of children left clinic-based services due to refusal or non-compliance with services.

Table 1
Percent of Cases within Program Types by Type of Prior Service Use

<i>PriorService</i>	<i>Clinic</i>	<i>DayTx</i>	<i>HBCI</i>	<i>CIF</i>	<i>ICM</i>	<i>HCBN</i>	<i>FBT</i>	<i>CRCY</i>	<i>RTF</i>	<i>SIP</i>
Outpatient Services	43	65	73	58	69	72	57	67	41	48
Psychiatric Hospital	11	32	28	51	48	81	59	87	87	75
Residential Treatment	3	9	4	14	11	15	11	27	41	32
Day Treatment	2	15	7	7	23	29	13	27	19	20
Community Residence	1	0	0	0	0	0	0	0	4	1
Outpatient Substance	0	1	0	1	1	2	0	0	1	1
Residential Substance	0	1	0	3	1	3	1	0	2	1
ICM	1	6	4	5	8	9	10	14	9	6
No prior service use	44	11	17	17	10	5	11	0	2	5

Table 2
Comparison of Average Scores and (standard deviations) for CANS-MH Dimensions for Each Program Type

<i>CANS Dimension</i>	<i>Clinic</i>	<i>Day Tx</i>	<i>HBCI</i>	<i>CIF</i>	<i>ICM</i>	<i>HCBW</i>	<i>FBT</i>	<i>CRCY</i>	<i>RTF</i>	<i>SIP</i>
Problems	4.8 ^a (2.2)	6.1 ^b (2.5)	7.2 ^{b,c} (2.3)	6.6 ^c (2.6)	7.3 ^{c,d} (2.4)	7.2 ^{c,d} (2.0)	7.5 ^{c,d,e} (2.1)	7.3 ^{c,d} (2.0)	8.3 ^e (2.4)	8.1 ^{d,e} (2.7)
Risk Behaviors	2.0 ^a (2.1)	3.4 ^b (2.3)	4.7 ^{c,d} (2.4)	4.9 ^{c,d} (2.6)	4.2 ^{b,c} (2.2)	4.5 ^c (2.1)	4.1 ^{b,c} (2.3)	4.8 ^{c,d} (2.3)	5.5 ^{d,e} (2.5)	6.2 ^e (3.4)
Functioning	3.6 ^{a,b} (1.7)	4.7 ^{c,d} (1.9)	3.8 ^{a,b} (1.6)	4.2 ^{b,c} (2.0)	4.2 ^{b,c} (1.7)	3.4 ^a (1.9)	4.5 ^{c,d} (1.6)	4.2 ^{b,c} (1.7)	5.3 ^d (2.0)	5.0 ^d (2.0)
Caregiver Needs	4.9 ^a (3.9)	5.2 ^{a,b} (4.6)	5.6 ^{a,b,c} (4.0)	5.6 ^{a,b,c} (4.4)	7.2 ^{c,d} (4.4)	6.3 ^{a,b,c} (3.7)	6.9 ^{b,c,d} (5.9)	8.3 ^d (4.9)	6.5 ^{a,b,c,d} (5.9)	5.9 ^{a,b,c} (4.7)
Strengths	7.3 ^a (2.9)	8.5 ^{b,c} (2.8)	7.7 ^{a,b} (2.3)	8.8 ^{c,d} (2.7)	8.3 ^{a,b,c} (2.6)	7.3 ^a (2.9)	9.6 ^d (2.1)	9.5 ^d (2.5)	9.8 ^d (2.6)	9.1 ^{c,d} (3.0)

Note: Superscript letters denote groups that are not statistically significantly different. Any two means that share a common superscript letter are not significantly different.

Table 3
Proportion of Cases within Program Type by Reasons for Ending Treatment

<i>Reason</i>	<i>Clinic</i>	<i>Day Tx</i>	<i>HBCI</i>	<i>CIF</i>	<i>ICM</i>	<i>HCBW</i>	<i>FBT</i>	<i>CRCY</i>	<i>RTF</i>	<i>SIP</i>
Improved	.20	.46	.72	.93	.44	.49	.36	.39	.55	.73
Aged out	.00	.14	.00	.00	.05	.00	.08	.17	.08	.02
Refusal/Compliance	.64	.22	.17	.02	.21	.20	.25	.35	.05	.27
Deterioration	.06	.08	.15	.03	.23	.27	.27	.13	.10	.09
Moved	.03	.10	.00	.00	.05	.02	.02	.00	.00	.00
Transportation	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00
Funding	.02	.00	.02	.00	.00	.02	.02	.00	.00	.00

Discussion

The existing system appears generally responsive to children’s level of need; children with the most challenging problems receive the most intensive services. Second, intensive community services appear able to successfully serve children with high needs. Based on these and others findings, new investments have been directed toward building a community-based children’s services system.

Even though residential treatment centers and state-operated inpatient facilities serve the children with the greatest need (i.e., at higher-risk for severe emotional disturbances), many children involved with long-term stays in these facilities did not receive outpatient treatment prior to admission. Youth in these facilities do not maintain consistent ties with family and community when treatment occurs for extended periods of time.

Many children admitted to community hospitals do not demonstrate risk factors typically associated with medical necessity for acute care hospital stays. While home-based crisis programs serve high-risk children and successfully deflect more than 90% from inpatient services, large numbers of children and families are not effectively engaged in care delivered through outpatient clinics.

Although intensive case management and home and community waiver programs are generally successful at serving and maintaining high need children in community environments, direct family involvement is lacking at all levels of service planning and delivery. Finally, a general lack of

collaborative case planning and service coordination between mental health providers and child welfare for common populations of children and families results in compromised planning and individual case management at the community level.

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Improving Quality in Systems of Care: Treatment Fidelity and the Child and Adolescent Needs and Strengths Measure

Mary Beth Rauktis & Dave Sliefert

Introduction

Youth with severe emotional disturbance require effective, flexible and individualized services that are responsive to their changing needs. The wraparound approach has been identified as an emerging evidence-based practice that can provide this type of care within a community setting (Burchard, Bruns & Burchard, 2002). Wraparound includes a planning process involving the youth, parents/caregivers and system partners for the purpose of creating a unique set of services and supports. Wraparound is child and family centered, focused on child and family strengths, community based, individualized, culturally relevant, flexible and coordinated across agencies (Burchard, Burchard, Sewall, & VanDenBerg, 1993; VanDenBerg & Grealish, 1998).

Two key questions for assuring the fidelity of wraparound intervention ask whether (a) services and supports are individualized, and (b) if the intervention is based on child strengths. Measuring adherence to principles is not an algorithmic process. Prescribing the same treatment to all youth is not the proper application of the wraparound principle of individualized service. Individualization by definition concerns the lack of algorithmic operation, so variability and uniqueness are one indicator of fidelity to wraparound (M. Hurlburt, personal communication, August 5, 1999). The nature of this type of intervention leads to the measurement problem: detecting variability is essential to determining fidelity of wraparound, but difficult to do. Yet there is a need for establishing a valid, cost effective method to determine the fidelity of the intervention (Burchard et al., 2002). The current study evaluates the feasibility of measuring wraparound fidelity through a record audit using the Treatment Fidelity Indicator (TFI; Sliefert, 2002) and the Child and Adolescent Needs and Strengths Measure (CANS; Lyons & Sokol, 2000).

Method

Measure

The CANS is an information integration tool that can be used prospectively for planning or decision-making, and retrospectively to review treatment decisions. The CANS assesses needs and strengths of the child and family in multiple functional domains. CANS dimension scores are calculated by summing all items within the dimension (e.g., *problem*); therefore, a higher score indicates a higher level of need or fewer identified/developed Strengths. The TFI was designed as a quality assurance tool to compliment the CANS. Using values from 1 to 5, the TFI quantifies the degree to which plan treatment goals and supporting documentation respond to specific needs and strengths identified through the CANS assessment process. A TFI value of 1 would indicate that needs are being met and strengths being utilized, and a value of 5 would indicate that needs are not being met or strengths leveraged.

Procedure

Four client records from Community Connections for Families, a Center for Mental Health Services system of care grant community, were reviewed for this study. Need dimensions from the CANS rated as “2” or “3” were noted and the plan and supporting documentation (e.g., progress notes, correspondence) were read. The reviewer determined if each dimension of need was *mostly*, *partially* or *rarely* addressed. Based on the number of *mostly*, *partially* and *rarely* answers, the value of “1”, “3” or “5” was assigned. Scores from each need dimension were averaged to create one TFI score; scores close to “1” indicate that needs were met and that treatment was individualized to meet those needs.

Strengths dimensions rated a “0” or “1” in the CANS were recorded and the plan and supporting documentation were reviewed for evidence that strengths were utilized in planning services and supports. The reviewer determined if each child strength dimension was “mostly”, “partially” or “rarely” utilized, and based on the number of mostly, partially and rarely answers, the value of “1”, “3” or “5” was assigned. Scores from each strength dimension were averaged to create one TFI score: scores close to “1” indicate that the plan was based on the youth’s unique strengths. For this study, only one reviewer was trained in the TFI. Sliefert (2002) found adequate measures of reliability using the kappa coefficients in an earlier study, indicating that reviewers can be trained to an acceptable level of reliability in using the TFI.

Results

While four records were reviewed, only one TFI result is presented in Figure 1 as an illustration of the procedure. In this record, high scores indicating unmet need are in the dimensions of mental health and child risk. Thus, revisions to the wraparound treatment plan should include adequate mental health treatment through referral and monitoring of the effectiveness of treatment. High child risk indicates the need for a safety plan. Child strengths were not utilized to the extent indicated by the CANS assessment: the cans indicated strengths but the clinician did not use them in the plan.

Figure 1
TFI: Record 1

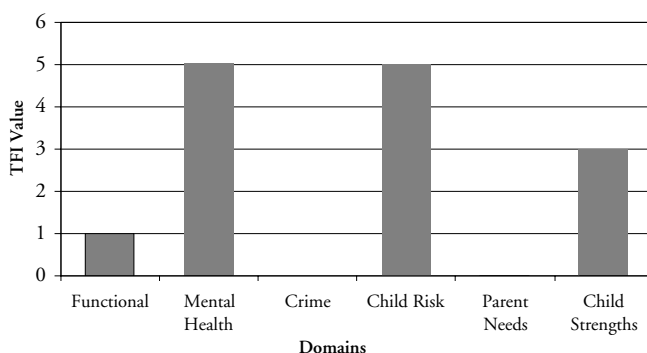
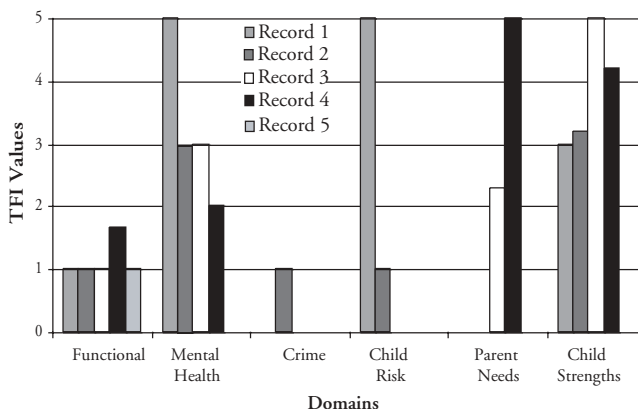


Figure 2 presents a global picture of TFI scores to illustrate how well the program was individualizing treatment and building on child strengths.

Discussion

This study found that the CANS in combination with the TFI provided a system of quality assurance. The value of the CANS-TFI lies not only in monitoring the quality of care for an individual child, but in the ability to review the system as a whole and identify areas for system advocacy and consultation.

Figure 2
TFI: All Records



The results can also be used in supervising staff. A study of social workers found that under highly demanding conditions, social workers need skill-building supervision (Rauktis & Koeske, 1994). By having the kind of information that the CANS-TFI provides, a supervisor can work with wraparound staff to develop competencies while building on those areas in which they excel. Care managers could also work in teams in order to complement skill levels. Finally, the TFI could be used as part of competency-based performance evaluations for staff.

Other measures of fidelity use observation (Epstein, et al., 1998) and survey methods (Bruns, Ermold & Burchard, 2001); we found record audits to be another viable method for measuring fidelity. Many organizations must review records for purposes of accreditation, and adding the TFI does not appreciably add to the burden. Sliefert (2002) found that raters could be trained to adequate levels (30% to 61% agreement) with a half a day of instruction and practice. A practiced reviewer can read and score a record with the TFI in approximately two hours.

Some limitations of the current study include the use of only one rater and the small number of records reviewed. Therefore, the results are preliminary. In addition, the value of the TFI is dependent upon the thoroughness of the CANS: if functional areas are not scored correctly, then the TFI will not be accurate. However, we have found both the TFI and the method of reviewing records to be another promising method for assessing the key principles of strengths-based and individualized planning in wraparound.

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Initial Outcomes for the Mental Health Juvenile Justice Initiative in Illinois

Gene Griffin & Sharon Quintenz

Introduction

The Mental Health Juvenile Justice Initiative (MHJJ) is a program of the Illinois Department of Human Services, Office of Mental Health (DHS/OMH). The goal of the program is to identify juveniles in detention centers with severe mental illness. The program utilizes the Child and Adolescent Needs and Strengths (CANS; Lyons & Sokol, 2000) as a decision support and information integration tool to identify the youth to be served in the project and to measure the outcomes for the youth and their families in MHJJ Initiative.

At its inception, MHJJ utilized the data reported by Dr. Linda Teplin of Northwestern University in the *Surgeon General's Conference on Children's Mental Health: A National Action Agenda* (US Public Health Service, 2000) to inform the goals of the initiative. Dr. Teplin studied youth in the juvenile justice system in Cook County, Illinois and determined that 15% of youth had a major affective disorder, often comorbid with substance abuse. In Illinois in 1998, over 18,000 youth were held in juvenile detention centers across the state, suggesting that over 2,700 youth in detention had a severe mental illness. To address this need, DHS/OMH provided \$2 million for the MHJJ Initiative for youth with severe mental illness exiting detention at seven sites in Illinois. MHJJ service liaisons work with detention, courts, and other personnel to at these sites to coordinate community-based services for youth in detention who have a major affective disorder or a psychotic disorder. Thus, the initiative focuses on minors who are in the most trouble and are the most disturbed.

Funding provided to the local community mental health agency supports the work of a system liaison, a master's level clinician with experience in community based care for youth with serious emotional disturbance and their families. Working full-time, the liaison links minors who have had contact with detention to the local system of care. The liaison conducts a preliminary assessment of minors exhibiting symptoms or behaviors that might suggest mental illness. For those youth found to have a severe mental illness, the liaison develops a care plan with the youth and family, based upon their needs and strengths. The plan specifies what services the juvenile needs across the major life domains and identifies where these services are available in the community. MHJJ also specifies how to pay for each of these services. The plan is then given to the court. The liaison does not interfere with the criminal case, but informs the court that it has a minor in detention who has a major mental illness with specific needs that can be treated in the community. If the minor is released to the community, the liaison assists the family with linkage to needed services for a period of six months. The liaison also has a pool of flexible funds available to assist the family in obtaining services that are required but would otherwise not be accessible without these funds. In the first full year of the program, liaisons conducted over 500 screenings and identified over 200 minors with severe mental illness.

Method

To ensure that the MHJJ Initiative produced the intended outcomes, an evaluation component was also funded. Under the direction of Dr. John Lyons, Northwestern University, Mental Health Services and Policy Program (MHSP), was the successful bidder on the Request for Proposal (RSP) for the MHJJ evaluation. In responding to the RSP, Dr. Lyons proposed the CANS as the instrument that could best identify the needs and strengths of this population with severe mental illness, as well as the needs and strengths of their families. The CANS measures needs and strengths along six dimensions: (a) problem presentation, (b) risk behaviors, (c) functioning, (d) care intensity and organization, (e) caregiver needs and strengths, and (f) strengths. Each of the CANS dimensions are rated on a 4-point scale after routine service contact or following review of case files, with low ratings indicating fewer needs or greater strengths (Lyons, Sokol, Lee, 1999).

After the evaluation was awarded to MHSP, staff of DHS/OMH met to discuss the instruments to be used in the evaluation protocol. In meetings with key providers and stakeholders, Dr. Lyons developed the Child Survey of Psychiatric Illness (CSPI) for the detention centers to use in deciding whether to refer a case to MHJJ. The CSPI is a 16-item checklist to identify presenting symptoms that suggest major affective disorder or psychosis. Several instruments were considered for use by the MHJJ liaison in determining whether the referred youth is appropriate for MHJJ initiative. Many instruments did not offer sufficient diagnostic information to identify youth with the specific disorders to be served. Thus, the CANS and the CSPI were chosen; the CSPI identifies eligible youth who were referred by the courts, probation or detention, and the CANS assists in their treatment planning. At monthly MHJJ meetings, MHSP staff trained the service liaison personnel in the use of the instruments, with consultation available as needed. The liaisons found the CANS training manual very useful and quickly became comfortable with the CANS as an information integration tool to guide strength based individual service planning. The Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1996), already a part of the outcome measurement utilized by DHS/OMH, was also administered to permit a comparison of youth served by the MHJJ project with youth served in other DHS/OMH programs.

Results

The CSPI and CANS have provided the necessary information to measure the impact of the MHJJ Initiative. They have given DHS/OMH staff and the service liaisons a clearer picture of the population served at each site. Data include useful demographic information such as school status at time of arrest (18% of youth not enrolled, suspended or expelled), special education status (37% of youth have a history of special education) and previous history of mental health treatment (68% of youth have a history of prior treatment). The CSPI has highlighted the differences between those youth who qualify for services and those who do not. Youth in MHJJ were found to have significantly high scores on the neuropsychiatric and emotional scales, indicating severe mental illness related to psychosis and depression; they also demonstrated high suicide risk and danger to others.

The CANS provides the DHS/OMH and service liaisons with information on a youth's problems, strengths, functioning and risks at the initial evaluation, and three and six months thereafter during the youth's involvement with MHJJ. Besides the overall scoring, the CANS provides data within each of these categories for the youth and the caregiver(s) to give a finer grain comparison among categories. As shown in Figure 1, data from the initial CANS administration and at three-months show significant decreases in psychosis and depression, the primary problems of concern. There are also significant decreases in scores on oppositional behavior and antisocial behavior, suggesting that improvement in mental health status can have a positive impact on prosocial behavior.

Data provided by the CANS with regard to caregiver capacity are also noteworthy. As shown in Figure 2, certain scores such as those for supervision and stability of residence depict significantly improved caregiver functioning in areas important to improvements in youth functioning. However, the

Figure 1
CANS: Risk Behaviors,
Percent of Individuals with a 2 or 3
(07/2001 thru 12/2001)

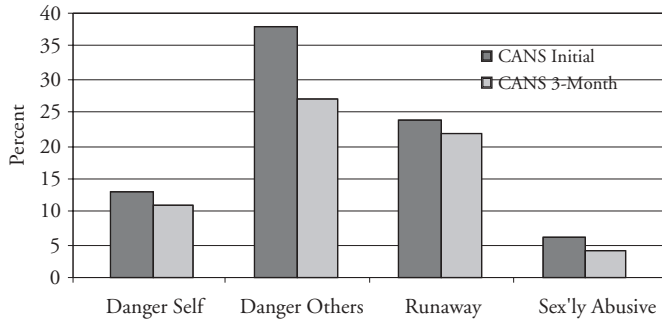


Figure 2
MHJJ CANS: Caregiver Capacity
Percent of Individuals with a 2 or 3
(08/2001 thru 12/2001)

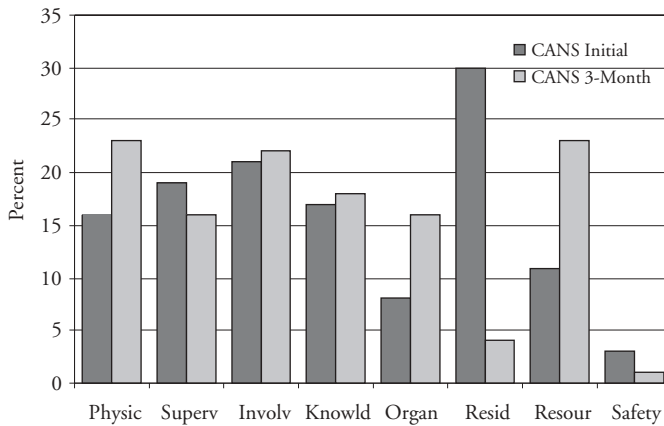
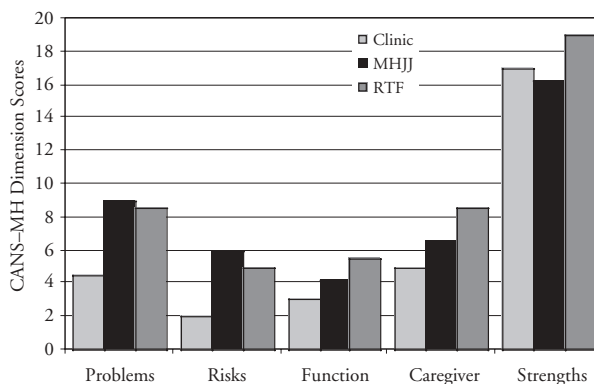


figure also depicts increased identification of physical needs of the caregiver as well as increased need for resources over the three months of service. This information not only gives the service liaison youth and family information, but also offers a picture of local community needs. These data can be aggregated by site to offer the liaison a picture of services and supports that may require development or expansion in the local community to address the needs of youth involved with the mental health and juvenile justice system.

Because the CANS has been implemented nationally in multiple sites, Dr. Lyons and the DHS/OMH have compared the problems and risk factors of youth served in the MHJJ initiative with the problems and risk factors of youth served in outpatient clinics and residential treatment centers in other states. Comparison of MHJJ youth with this larger cohort indicate that youth served by the MHJJ Initiative display problems and risk factors at levels close to those of youth in residential placement (see Figure 3). It appears safe to assume that youth in MHJJ would be at risk of extrusion from home, school and community without intervention, and that youth in MHJJ demonstrate a high degree of need comparable to youth in highly restrictive settings.

Figure 3
Comparison of MHJJ Youth to
Youth in Outpatient Clinics and Residential
Treatment on CANS-MH dimensions



Discussion

Through the use of the evaluation tools from Dr. Lyons and MHSP staff, the MHJJ Initiative has demonstrated that youth with severe mental illness in detention can be successfully identified and referred for community-based services. The initiative also demonstrates that parents of youth in the juvenile justice system are responsive to outreach from their local community mental health provider and that, with services and supports, youth in MHJJ evidence improved functioning. Preliminary data from the first seven sites provides promising information in terms of decreased re-arrest rate, increased school attendance and high rates of parental participation. These positive outcomes utilizing CANS data, along with the endorsements of the courts that have participated in the project, has led to the expansion of the MHJJ Initiative to all detention centers in Illinois. The CANS instrument will now be used by the mental health service system liaisons throughout all of the juvenile detention centers to identify, link and serve those youth who are in most need of coordinated care from the mental health and juvenile justice systems.

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Symposium Discussion

Various versions of the CANS are currently used in at least thirteen different states. The applications include decision support, quality improvement, and outcomes monitoring, all of which have been illustrated in this symposium. Decision support applications include establishing levels of care and assisting with service planning. Quality improvement activities involve monitoring the match between identified needs and services provided and the extent to which strengths are identified and included in service plans. Outcomes monitoring applications involve monitoring the effectiveness of services over three- to six-month intervals.

It has become increasingly obvious that in order to effectively manage and evolve a system of care for children and families, it is necessary to ensure that service recipients are represented in all aspects of the process. One means of ensuring representation is to consistently collect information on the needs and strengths of children and families who are served; in this way, services received and services needed can be understood from their perspective. The CANS is one tool that can facilitate this process. The CANS allows for the reliable and valid communication of needs and strengths to inform decision-making at the individual child and family level while enabling administrators to monitor the quality and effectiveness of services at the program and system level.

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