Chapter Ten

Measurement of Complex Concepts

CANS: An Information Integration Tool Developed in Partnership with Families to Support Community-Based Systems of Care

Patricia Tennant Sokol
John S. Lyons
M. Connie Almeida
Mary Beth Rauktis
Julie Hladio

Introduction

There has been increasing interest and emphasis on the identification and use of strengths in mental health assessment and service delivery for children, adolescents and their families (Lyons, Uziel-Miller, Reyes & Sokol, 2000). This is the result of several factors such as the Robert Wood Johnson Foundation's funding of the Mental Health Services Program for Youth (MHSPY) and replication of these sites, as well as several seminal publications by Stroul and Friedman (1994) and Jane Knitzer (1982). The underlying assumption of the strengths perspective is that humans have the capacity to grow, adapt and change (Early & GlenMaye, 2000). A second assumption underlying the strengths approach is that people also have knowledge and skills that can be used in solving problems; the fact that many have managed to survive in difficult circumstances is evidence of knowledge and capabilities (Early & GlenMaye, 2000). When individuals and families seek professional help for unmet needs, they also bring strengths or have potential strengths and abilities that can be used in the helping process.

Assessment is the process of collecting information for the purposes of making decisions about individuals (Salvia & Ysseldyke, 1995). Strengths-based assessment is defined by Epstein and Sharma (1998) as "the measurement of those emotional and behavioral skills, competencies, and characteristics that create a sense of personal accomplishment; contribute to satisfying relationships with family members peers and adults; enhance one's ability to deal with adversity and stress; and promote one's personal, social and academic development" (p. 3). Lyons and Sokol (2000) conceptualize the strengths-based assessment process as a communication strategy: "the first step of helping involves assessment: a good assessment provides information about service planning and communicates to the larger system of care about the needs and strengths of children and families" (p 4).

Strengths-Based Assessments

While there are measures that document children's problems (Revised Behavior Problem Checklist, Quay & Peterson, 1987; Child Behavior Checklist, Achenbach, 1991) and child functioning (Child and Adolescent Functional Assessment Scale [CAFAS], Hodges & Wong, 1996), strengths-based assessment measures are a new methodology. Although strengths-based assessments have been conducted informally, there were no formal assessments of strengths until the late 1990s. The challenges to developing a strengths-based measure include the problem of creating a standardized measure that can identify nearly infinite potential strengths as well even though theories underlying strengths-based approaches are not yet well developed. Two measures have emerged: the Behavioral and Emotional Rating Scale (BERS; Epstein & Sharma, 1998) and the Child and Adolescent Needs and Strengths (CANS; Lyons & Sokol, 2000).

The BERS is a 52-item scale that measures children's emotional and behavioral strengths in five areas. The BERS has been normed on children with and without behavioral and emotional disabilities. Reliability and validity studies have demonstrated that the BERS has strong psychometric properties (Epstein, 1999).

The CANS is based on an earlier tool, the Childhood Severity of Psychiatric Illness (CSPI; Lyons, 1998). The CANS is a locally constructed decision tool that can be used either prospectively as an effective information integration tool for the development of individual plans of care, or retrospectively in designing and planning community-based, family-focused systems of care. The CANS provides a structured profile, or picture, of children and their families along a set of seven dimensions relevant to service planning and decision-making. The CANS is not designed to “add up” the numerical scales for an overall “score.” Instead, it gives a “picture” or a “profile” of a child and their family/caregiver that notes the strengths of each. This information is most effective in developing strengths based and family-focused individual service plans. Table 1 lists the dimensions and their four point anchors.

The dimensions and objective anchors used in the CANS were developed in partnership with families through focus groups including representatives of the provider community, case managers, mental health workers and other staff. Testing of the reliability of the CANS indicate that this assessment approach can be used reliably by both professionals and family advocates with minimal training.

CANS As A Communication Strategy

Unlike traditional measurement approaches that focus on the precise measurement of latent constructs, the CANS measurement approach is derived from communication theory. From this perspective the goal of measurement is less about precise location of an individual on a construct of interest and more about providing a description of an individual that supports service planning and integration among partners in care. As such, the CANS is an action-oriented tool that does not require scoring for interpretation to occur. Specialty versions of the CANS for mental health, child welfare, developmental disabilities, juvenile justice, and sexually aggressive youth have been implemented around the country. The intention of the multiple versions is to enhance communication across child serving agencies.

Consistent with a communication strategy, we also have trained family advocates in the use of the CANS measurement. Some might suggest that this approach has the effect of de-professionalizing measurement. We would argue that it has the effect of demystifying the child and family service system, which, in the long run, should serve the best interests of children and their families.

Reliability and Validity of CANS

In our research to date we have investigated the reliability, validity, and uses of the CANS in a variety of settings. In 10 large scale reliability analyses, we found that the inter-rater reliability of the CANS ranges from 0.89 with trained clinical experienced personnel using comprehensive medical records to 0.82 for clinically experienced personnel using case vignettes and 0.79 for trained parents using comprehensive case records.

In terms of validity we have completed a number of studies including comparisons to other measurement tools such as the CAFAS and the BERS. These studies suggest that regardless of the route of administration (e.g., family friendly interview, file review, case management assessment), the CANS provides information that is consistent with other approaches to measurement. In addition, by mapping the mental health service system for children in New York (95 sites, 1671 cases), we found that the CANS reliably distinguishes between levels of care (e.g. residential treatment, hospital, day

Table 1
CANS Domains and Dimensions

The basic structure of the CANS is grouped in 7 domains	Each domain has multiple (up to 9) dimensions, each with four point anchors
➢ Problem Presentation ➢ Risk Behaviors ➢ Functioning ➢ Care Intensity & Organization ➢ Caregiver/Family Needs and Strengths ➢ Strengths (of the child)	✓ 0 = No need for action ✓ 1= Need for watchful waiting to see whether action is needed, flag for monitoring/prevention ✓ 2= Need for action ✓ 3= Need for either immediate action or intensive action

treatment, clinic) and provides information about children and families that support planning for service system enhancement. Thus, the growing body of research on the CANS method suggests that it is a reliable and valid measure of the needs and strengths of children and their families that can be used to support and monitor decision-making regarding services. The reliability and validity studies were conducted for individual states and sites implementing CANS and are not published to date (Anderson, Lyons, Giles, Price, & Estle, in press; Lyons et al., 2001; Lyons, MacIntyre, et al., 2001; Anderson, Lyons, Giles, Price, & Estle, 2001). For more information regarding these studies please contact Dr. John Lyons at Northwestern University.

To date there have been a variety of uses for the CANS measures. In many cases, the CANS is used as a means of summarizing the initial comprehensive assessment of children has they enter a system of care. These applications have occurred in managed care environments in Arizona and Oregon, system of care environments in Allegheny County Pennsylvania, in child welfare environments in Florida and Illinois, and in juvenile justice in Illinois. The CANS has also been used to monitor the success of long-term service delivery in Texas and Illinois). Finally, the CANS has been used as a retrospective planning tool to support service system evolution in New York, New Jersey, and Illinois.

Using CANS in Local Systems of Care

The CANS-DD is used by Texana Mental Health/Mental Retardation community services in Texas. Data on the needs and strengths of 200 children and adolescents with developmental disabilities and their families outline the relationship between functioning and intensity of services, family/caregiver needs and strengths. These data also show co-existing conditions (e.g., depression, anxiety disorders) and their relationship to family functioning, strengths, functioning, intensity of services and placement. The ongoing use of these data is essential for the continued refinement of services to meet the needs of children with developmental disabilities and families and to support permanency and outcome management. For Texana, the CANS-DD is a key tool that assisted in the development of service plans, which supports the strength-based philosophy of wraparound.

Community Connections for Families (CCF), is a SAMHSA-CMHS funded system of care project in Allegheny County, Pennsylvania. The CANS is part of planning for services and supports with the caregiver and child/youth. A unique feature of the Allegheny County CANS is that it was modified to meet the unique needs of the CCF system of care by a group of parents called the “think tank” who met regularly with Dr. Lyons. As a result of the “think tank’s” work, the Allegheny County CANS administration form is a series of open-ended probe questions. The CANS is in modular form, so that depending upon the caregiver’s choice, the strengths section can be discussed before of after needs are discussed. The process of doing the CANS is not just to obtain information; it is a communication tool and a reflection of a story that needs to be heard.

In both Texana and CCF, we have used the CANS for both prospective service and support planning and also for quality assurance. The CANS is useful prospectively because it identifies needs and ties it to specific actions and prioritizes the needs that must be met first. It also identifies child and family strengths in an organized manner so that these strengths can be used in developing the plan.

Both CCF and Texana found the CANS to be a useful tool for quality assurance. One of the important questions that we needed to answer in the first year of CCF was “are plans strengths based?” Strengths-based planning is one of the principles of Wraparound (VanDenBerg, 1998). To measure the extent to which plans were strengths-based, in CCF we compared the CANS scores with the strengths used in the individual plans and computed a proportion (needs identified/needs met X 100). The average percentage of strengths used in plans was approximately 40%—that is, 40% of the child or family strengths identified through the CANS were used as part of the plan. Using the CANS helped to identify specifically where wraparound philosophy was not being implemented.

Another important set of questions asked: “What is the relationship between child functioning and need? Is there a relationship, or do needs exist independent of problematic functioning? This has clinical implications because if needs are not related to functioning, meeting those needs may not improve the child’s level of functioning. The CANS mental health subscale and the CAFAS were compared for 35 children and youth at baseline. The correlations are displayed in Table 2 and Table 3.

There is preliminary evidence to suggest that for this group of children, a high level of needs may associate with poorer functioning. For example, if a child needs help in controlling anger, impulsivity and labile mood, that child is also likely to be difficult to manage in a classroom setting, will be disruptive to the other students and may fail classes.

In summary, strengths-based assessments such as the CANS hold great promise for both planning and monitoring the quality of services and supports in community-based systems of care.

Table 2
Community Connections for Families
Correlation of the CANS Risk Subscale with CAFAS Subscales

CAFAS Subscales (baseline)	*Correlation with CANS child risk Subscale (baseline)*
School/work subscale Role performance	.47*
Home subscale Role performance	.55**
Community subscale Role performance	.22
Behavior toward others	.51**
Moods/emotions subscale	.51**
Self-harmful behavior subscale	.43*
Substance use	–
Thinking	-.03
Total CAFAS score	.66**

*N=26; *p ≤ .05; **p ≤ .01*

Table 3
Community Connections for Families
Correlation of the CANS Child/Youth Strength Subscale with CAFAS Subscales

CAFAS Subscales (baseline)	*Correlation with other CANS subscales (baseline)*
School/work subscale Role performance	.40* child strengths
Behavior toward others	.49* child strengths
Moods/emotions subscale	.42* child strengths
Self-harmful behavior subscale	.40* caregiver needs
Total CAFAS score	.46* child strengths

*N=26; *p ≤ .05*

References

Achenbach, T. M. (1991). *Manual for the Child Behavior Checklist/4-18 and 1991 Profile.* Burlington: University of Vermont, Department of Psychiatry.

Anderson, R. L., Lyons, J. S., Giles D. M., Price, J., & Estle, G. (In press). Examining the reliability of the Child and Adolescent Needs and Strengths-Mental Health (CANS-MH) scale from two perspectives: A comparison of clinician and researcher ratings. *Journal of Child and Family Studies.*

Early, T. J. & GlenMaye, L. F. (2000). Valuing families: Social work practice with families from a strengths perspective. *Social Work, 45*(2), 118-130.

Epstein, M. H. (1999). The development and validation of a scale to assess the emotional and behavioral strengths of children and adolescents. *Remedial and Special Education, 20*(5), 258-262.

Epstein, M. H. & Sharma, J. (1998). *Behavioral and Emotional Rating Scale: A strength-based approach to assessment.* Austin, TX: PRO-ED.

Hodges, K., & Wong, M. M. (1996). Psychometric characteristics of a multidimensional measure to assess impairment: The Child and Adolescent Functional Assessment Scale. *Journal of Child and Family Studies, 5*, 445-467.

Knitzer, Jane (1982). *Unclaimed children: The failure of public responsibility to children and adolescents in need of mental health services*. Washington, DC: Children's Defense Fund.

Lyons, J. S. (1998). *The severity and acuity of psychiatric illness: Child and adolescent version.* San Antonio: Psychological Corporation.

Lyons, J. S., Lee, M., Carpinello, S., Rosenberg, L., Zuber, M., Fazio, M. L., MacIntyre, J. (2001). *Assessing the needs and strengths of children and adolescents in the mental health service system*. Manuscript submitted for publication.

Lyons, J. S., MacIntyre, J., Lee, M., Carpinello, S., Zuber, M., Fazio, M. L. (2001). *Psychotropic medication in the treatment of children: Comparison across state-wide public mental health programs*. Manuscript submitted for publication.

Lyons, J. S. & Sokol, P. (2000). The *Child and Adolescent Needs and Strengths manual*. Unpublished document. Retrieved from: http://www.buddinpared.org

Lyons, J. S., Uziel-Miller, N. D., Reyes, F., & Sokol, P. T. (2000). Strengths of children and adolescents in residential settings: Prevalence and associations with psychopathology and discharge placement. *Journal of the American Academy of Child and Adolescent Psychiatry, 39*(2), 176-181.

Quay, H. C. & Peterson, D. (1987). *Revised Behavior Problem Checklist*. Coral Gables, FL: University of Miami, Department of Psychology.

Rudolf, S. M., & Epstein, M. H. Empowering children and families through strengths-based assessment. *Reclaiming Children and Youth, 8*(4), 207-209, 232.

Salvia, J. & Ysseldyke, J. (1995). *Assessment (6th ed.),* Boston: Houghton Mifflin.

Stroul, B. A. & Friedman, R. M. (1994). *A system of care for children and youth with severe emotional disturbances.* Washington DC: Georgetown University, CASSP Technical Assistance Center.

VanDenBerg, J. (1998). *History of the wraparound process. Systems of care promising practices in children's mental health: Promising practices in wraparound for children with serious emotional disturbance and their families (Volume IV).* National Technical Assistance Center for Children's Mental Health, Georgetown University.

CONTRIBUTING AUTHORS

Patricia Tennant Sokol, M.S.W., D.P.A.
4061 SE 25th Terrace, Ocala, FL 34480; 352-671-9513, Fax: 352-671-9514;
E-mail: ptsokol@aol.com

John S. Lyons, Ph.D.
Institute for Health Services Research & Policy Studies, Northwestern University, 339
East Chicago Ave., Weibolt 717, Chicago, Il 60611; 312-503-0425,
Fax: 312-503-2036; E-mail: jsl329@nwu.edu

M. Connie Almeida, Ph.D.
Texana MH/MR Center, 711 South 11th Street, Richmond, TX 77469;
281-342-0090, Fax: 281-341-9388; E-mail: Calmeida@texanamhmr.com

Mary Beth Rauktis, Ph.D.
Allegheny County Department of Human Services, Community Connections for
Families, 304 Wood Street, Pittsburgh, PA 15222-1900; 412-350-5760,
Fax: 412-350-4004; E-mail: mbrauktis@dhs.county.allegheny.pa.us

Julie Hladio, B.S.
Allegheny County Department of Human Services, Community Connections for
Families, 304 Wood Street, Pittsburgh, PA 15222-1900; 412-350-5760,
Fax: 412-350-4004; E-mail: jhladio@dhs.county.allegheny.pa.us

Family Participation in Planning Services: A Brief Measure

Barbara Friesen
Michael Pullmann

Introduction

The full participation of family members in planning, implementing, and evaluating services for their children with emotional or behavioral disorders is increasingly accepted as an essential aspect of planning and providing educational, social, medical, and psychological services to these children and families. The recent Surgeon General's report on mental health acknowledged family members as "essential partners" (U.S. Department of Health and Human Services, 1999), both at the individual child and family level, and as key participants in system-level planning and evaluation.

Scholarly work addressing family participation is unevenly developed across fields, and is probably most well developed in the educational arena (Cone, DeLawyer, & Wolfe, 1985; Epstein, 1987; Grolnick & Slowiaczeck, 1994; Miedel & Reynolds, 1999; Sullivan, 1998). Beyond that, there is a limited body of research literature across fields of practice, with some work in child welfare (Davis, Landsverk, Newton, & Ganger, 1996; Johnson, 1999; Rzepnicki, 1987; Tam & Ho, 1996), and a few studies in the area of children's mental health (Baker & Blacher, 1993; Baker, Blacher, & Pfeiffer, 1993; Curtis & Singh, 1996; Kazdin, Holland, Crowley, & Breton, 1997; Koren, Paulson, Kinney, Yatchmenoff, Gordon, & DeChillo, 1997; Noser & Bickman, 2000; Singh, Cohen & Nicholson, 1992; Wilson, 1999). In this last area of children's mental health, relatively little attention has been directed toward carefully defining and measuring the concept of family participation. This paper represents an effort to further clarify thinking about family participation and to supplement available measurement tools for one specific aspect of family participation, service and education planning.

Past definitions and measures of family participation are inconsistent with our desire to have a brief, easy-to-administer measure. Four limitations of previous measures include: (1) Participation is often operationalized as caregiver compliance, receipt of services, number of contacts with the child, or retention of parenting functions such as providing pocket money or cooking meals; (2) When measures do include caregiver participation in planning services, they tend to focus on professional behaviors and activities designed to invite family participation; (3) several existing measures do not directly ask the caregivers about their levels of participation, but instead gather information from clinical staff or case records, and; (4) some existing participation measures are difficult to administer (lengthy or require case record reviews). Our measure attempts to address these issues.

Method

Instrument development. The work on developing this instrument was conducted as part of a larger study of family participation in children's mental health services. From focus group research, we identified four dimensions of family participation; two that are specific to out-of-home care (contact with the child and retention of parenting functions), and two that are relevant regardless of where the child is living (participation in decision making and planning, and "receipt of services for self and/or family").

The focus of this study is on the measurement of participation in service/treatment and education planning and review. This planning and decision making usually occurs in a team meeting (mental health) or Individualized Educational Plan meeting (special education).

As a foundation for items that focus on treatment and education service planning and review, we built on items used to measure service/treatment planning in a previous study (Koren, et al., 1997), and added others. Our cross-sectional study utilized a sample recruited through randomly selected chapters of the Federation of Families for Children's Mental Health and other family organizations, in addition to the Research and Training Center mailing list.

Eligible participants were caregivers with long-term responsibility for youth aged 0-20 who received three months or more of treatment for their emotional, behavioral, or mental disorders between September 1, 1996 and August 31, 1998, and were living at home or in an out-of-home placement. Questionnaires were mailed to a sample of eligible and willing family members. The Family Participation Measure (FPM) was part of a questionnaire that gathered family demographics and addressed additional topics such as contact between parents and children (when children were living in out-of-home placements), caregiver empowerment, and involvement in decisions about the child's daily life.

Results

Data collection occurred in 1999-2000. Useable surveys included 372 of the in-home version and 117 of the out-of-home version, resulting in a usable completion rate of 56.6%. Twenty-four male caregivers and 464 female caregivers reported on 364 male and 124 female children. Most children were Caucasian (82%); the next largest group consisted of African-Americans (6%) and multiracial children (6%); some children were Hispanic (3%), and fewer still were Native American (1%), Asian (1%), or other or missing (1%). All children ranged in age from 4 to 20 years ($M = 14$) at the time of entry into the placement. Birthmothers constituted 75% of the sample, and adoptive mothers made up 12%. Half of the caregivers had a college degree and the median yearly income was $40,000. Questionnaires were returned from 46 states.

We examined the two domains of service and educational planning by including parallel questions about participation; 12 items were included for service/treatment planning and 12 for education planning, using a scale from 1 ("Not at all") to 4 ("A lot"). The in-home participants responded based upon the service that best met their needs, whereas the out-of-home participants responded based upon their child's last placement.

Initial reliability estimates using all items demonstrated high internal consistency for both service/treatment participation ($\alpha = .96$) and education participation ($\alpha = .94$). Items were entered into an initial Principal Components factor analysis with a varimax method of rotation. A scree plot indicated three factors, accounting for 72.11% of the variance. Table 1 includes all factor loadings above .50.

The two items uniquely loading on Factor III were dropped due to their statistical inconsistency, low total variance accounted for, and lack of theoretical meaning. Separate Principal Components analyses were run for the items that loaded on Factors I and II (see Table 2). The items with the strongest factor loadings and significant theoretical value were retained; these items are marked with an asterisk in Table 2.

Two final Principal Components analyses for each version of the measure were performed using the seven remaining variables. The single-factor service/treatment planning version accounted for 76.4% of the total variance, and the single-factor education planning version accounted for 70.7% of the total variance. Alpha coefficients demonstrated high internal consistency for both service/treatment planning ($\alpha = .95$) and education planning ($\alpha = .93$). Corrected item to total correlations ranged from .75 to .90 for the service/treatment planning version, and from .67 to .87 for the education planning version.

We anticipated that the two versions of the FPM would be moderately correlated, reflecting distinct domains that are still related. A relationship between the service/treatment planning and educational planning versions would be expected because of the large number of potential covariates (aspects of the caregiver, the child, and the community). By including parallel items examining

Table 1
Principal Components Factor Analysis for Family Participation

		Factor	
Education Planning and Review	*I*	*II*	*III*
Included in planning		.59	.53
Ideas valued in planning		.79	
Family's values and culture taken into account		.69	
Role for you in carrying out plan		.60	
Plan fit child's needs		.84	
Agreement with the plan		.86	
Family's needs/circumstances taken into account		.81	
Able to influence planning		.77	
Involved in review of planning			.76
Feel free to ask questions in review			.70
Staff listened to ideas in review		.69	
Staff made changes based on ideas in review		.66	
Treatment and Service Planning and Review	*I*	*II*	*III*
Included in planning	.80		
Ideas valued in planning	.85		
Family's values and culture taken into account	.78		
Role for you in carrying out plan	.75		
Plan fit child's needs	.79		
Agreement with the plan	.83		
Family's needs/circumstances taken into account	.84		
Able to influence planning	.87		
Involved in review of planning	.77		
Feel free to ask questions in review	.72		
Staff listened to ideas in review	.81		
Staff made changes based on ideas in review	.78		

Note. Factor loadings >= .50

Table 2
Factor Loadings for Separate Principal Component Analyses for Participation Items

	Treatment and Service	*Education*
Able to influence planning *	.92	.89
Family's needs/circumstances taken into account *		
Ideas valued in planning *	.89	.90
Agreement with the plan *	.87	.82
Staff listened to ideas during planning review *	.87	.85
Family's values and culture taken into account *	.85	.77
Plan fit child's needs	.83	.79
Included in planning	.82	.77
Staff made changes based on ideas in review*	.82	.82
Involved in review	.78	
Role for you in carrying out the plan	.77	.75
Feel free to ask questions	.75	

Note. * = Item retained after analysis

both areas, we were able to confirm that there was a correlation between them, but of moderate size ($r = .549$, $p < .001$), demonstrating the necessity of including both versions when measuring these two dimensions of participation in planning.

Additionally, we performed analyses of the construct validity of the measure which demonstrated that caregivers who were involved in decisions about their child's daily life scored higher on the FPM than caregivers who were not involved. Decisions that did not hold as much theoretical relationship to participation in planning were not significantly related to the caregiver's participation score, helping to dispel concerns about a strong halo effect.

Discussion

Based on the analyses described above, the FPM was found to be a reliable and valid instrument for measuring family participation in service and education planning. The measure is brief, easy to administer, and shows promise for use across education and treatment service settings. This measure provides a useful tool for family advocates, service providers, educational representatives, and researchers for assessing caregivers' perceptions of their level of family participation in education and service/treatment planning. Further research with the FPM may include examining its responsiveness to interventions designed to increase family participation in planning, and the degree to which the FPM scores change over time in relation to characteristics of the service provider and organization. Additionally, we plan to examine the measure's relationship with caregiver empowerment as well as barriers to and supports of participation. This paper is part of an ongoing discussion, and others are encouraged to further develop and improve upon our suggestions.

References

Baker, B. L., & Blacher, J. B. (1993). Out-of-home placement for children with mental retardation: Dimensions of family involvement. *American Journal of Mental Retardation, 98*(3), 368-77.

Baker, B. L., Blacher, J., & Pfeiffer, S. (1993). Family involvement in residential treatment of children with psychiatric disorder and mental retardation. *Hospital and Community Psychiatry, 44*(6), 561-566.

Davis, I., Landsverk, J., Newton, R., & Ganger, W. (1996). Parental visiting and foster care reunification. *Children and Youth Services Review, 18*(4/5), 363-382.

Cone, J., Delawyer, D., & Wolfe, V. (1985). Assessing parent participation: The Parent/Family Involvement Index. *Exceptional Children, 51*(5), 417-424.

Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika, 16*, 297-334.

Curtis, J. W. & Singh, N. N. (1996). Family involvement and empowerment in mental health service provision for children with emotional and behavioral disorders. *Journal of Child & Family Studies, 5*(4), 503-517.

Epstein, J. L. (1987). Toward a theory of family-school connections: Teacher practices and parent involvement. In K. Hurrelman, F. X. Kaufmann, & F. Losel (Eds.), *Social intervention: Potential and constraints*. Berlin: de Gruyter.

Grolnick, W. S. & Slowiaczek, M. L. (1994). Parents' involvement in children's schooling: A multidimensional conceptualization and motivational model. *Child Development, 65*, 237-252.

Johnson, M. (1999). Multiple dimensions of family-centered practice in residential group care: Implications regarding the roles of stakeholders. *Child & Youth Care Forum, 28*(2), 123-141.

Kazdin, A., Holland, L., Crowley, M., & Breton, S. (1997). Barriers to Treatment Participation Scale: Evaluation and validation in the context of child outpatient treatment. *Journal of Child Psychology and Psychiatry, 38*(8), 1051-1062.

Koren, P. E., Paulson, R. I., Kinney, R. F., Yatchmenoff, D. K., Gordon, L. J., & DeChillo, N. (1997). Service coordination in children's mental health: An empirical study from the caregiver's perspective. *Journal of Emotional & Behavioral Disorders, 5*(3), 162-172.

Miedel, W. T., & Reynolds, A. J. (1999). Parent involvement in early intervention for disadvantaged children: Does it matter? *Journal of School Psychology, 37*(4), 379-402.

Noser, K., & Bickman, L. (2000). Quality indicators of children's mental health services: Do they predict improved client outcomes? *Journal of Emotional and Behavioral Disorders, 8*(1), 9-18.

Rzepnicki, T. L. (1987, March). Recidivism of foster children returned to their own homes: A review and new directions for research. *Social Service Review,* 56-70.

Singh, N. N., Cohen, R., & Nicholson, M. W. (1992). *Perceptions of Family Involvement Scale*. Richmond: Virginia Commonwealth Institute for Child and Family Studies.

Sullivan, P. (1998, August/September). Improving parent involvement: The national standards for parent/family involvement programs. *Our Children*, 23.

Tam, T. S., & Ho, M. K. (1996). Factors influencing the prospect of children returning to their parents from out-of-home care. *Child Welfare, 75*(3), 253-268.

U.S. Department of Health and Human Services (1999). *Mental Health: A Report of the Surgeon General.* Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health.

Wilson, S. S. (1999). *Cognitive factors predicting parental involvement in children's mental health services*. Unpublished doctoral dissertation, Department of Psychology and Human Development, Vanderbilt University, Nashville, TN.

CONTRIBUTING AUTHORS

Barbara Friesen, Ph.D.
Director; 503-725-4166, Fax: 503-725-4180; E-mail: friesenb@pdx.edu

Michael Pullmann, M.S.
Research Assistant; 503-725-4096, Fax: 503-725-4180;
E-mail: pullmam@rri.pdx.edu

All authors: *Research and Training Center for Family Support and Children's Mental Health, Graduate School of Social Work, Portland State University, PO Box 751, Portland, OR 97207-0751*

The Treatment Progress Checklist: Psychometric Development of a Daily Symptom Checklist

Robert E. Larzelere
M. Beth Chmelka
M. Diane Schmidt
Mark Jones

Introduction

There are many indications that we need to improve the ways that scientific evidence informs clinical practice in the field. One example is the increased emphasis on effectiveness studies in addition to efficacy studies. Efficacy studies have asked, "Is there rigorous proof of the effectiveness of a treatment protocol under ideal conditions?" In contrast, effectiveness studies are asking, "Is there reasonable proof of the effectiveness of a treatment in typical clinical conditions?"

Practitioners, however, are more directly interested in a third question: "Is this treatment working for this particular client?" There are only scattered initiatives designed to address the practitioner's question directly (e.g., Fishman, 1999; Howard, Moras, Brill, Martinovich, & Lutz, 1996). In contrast to typical efficacy and effectiveness research, the practitioner's question requires during-treatment data, e.g., for treatment modifications.

This study describes a psychometric study of the Treatment Progress Checklist (TPC), a daily symptom checklist for during-treatment data. The TPC is a third-generation adaptation of the Parent Daily Report (Chamberlain & Reid, 1987), modified for youth in out-of-home placements. It has proven very useful for treatment planning, for utilization reviews, and for evaluations of changes in psychotropic medications.

The TPC meets the following criteria of a useful daily symptom tracking assessment: efficient, objective, and understandable to various stakeholders (Bruns, Burchard, Froelich, Yoe, & Tighe, 1998). The present study evaluated the reliability and dimensionality of the Treatment Progress Checklist.

Method

Participants

The participants in this study included 170 youth in residence from October 1998 through February 2000 in one of three behavioral health programs operated by Girls and Boys Town. The youth included 58% males and 32% ethnic minorities. Their ages ranged from 7 to 17 (M = 13.1). The most common DSM-IV diagnoses were Oppositional Defiant Disorder (ODD; 28.1%), Attention Deficit Hyperactive Disorder (ADHD; 19.1%), Post-Traumatic Stress Disorder (PTSD; 10.1%), major depression (9.0%), Disruptive Behavior Disorder Not Otherwise Specified (NOS) (5.6%), and Intermittent Explosive Disorder (5.6%). Youth were found to have from one to six diagnoses.

The behavioral health programs included an intensive residential treatment center with 81 youth (Daly et al., 1998), a treatment group home program with 98 youth (Jones, Larzelere, Smith, & Chmelka, 2000), and a specialized treatment foster care program serving 53 youth. Some youth were counted in multiple programs. Youth in this study who were discharged had been in their particular program an average of 5.6 months.

Treatment Progress Checklist

An earlier version of the Treatment Progress Checklist included 52 behavioral symptom items, which provided the data for this study. In addition, there were 13 items describing specific interventions imposed by direct-care staff (e.g., time out). Direct-care staff were asked to indicate whether any behavior had occurred for each youth during a shift or a day, depending upon the program. For several more serious behaviors (e.g., physical assault), staff were also asked to report on the frequency of that behavior.

Analyses

Several methods were used to select the best items for the revised TPC from the original pool of 52 behavioral symptom items. First, direct-care staff and clinical supervisors were asked to choose the 25 most useful items. Second, we calculated the mean number of days each behavior occurred each month for the average youth. (Low-frequent behaviors are less useful for graphing symptom trends over time than are moderate- or high-frequent behaviors). Third, we used factor analyses to indicate which items tended to cluster together.

Because a youth's behavior symptoms could change over time, we regarded one month of a youth's TPC data as a unit of analysis for the factor analyses and the reliability analyses. The assumption was that an interrelated cluster of items would tend to be elevated together during a brief time period. By regarding months as the unit of analysis for each youth, we could also increase the sample size from 170 to 968. Although many statistical analyses assume independence of cases, that is not an essential assumption for factor analysis or reliability analyses.

The factor analysis used principal components with varimax rotation. The scree test helped determine the numbers of factors. We also wanted the factors to have a level of specificity consistent with major distinctions made by the DSM-IV.

Results

Table 1 summarizes the ranked usefulness, frequency, and factor loadings of the 27 items in the final TPC clusters. These items were selected because they out-performed the other items for these criteria. Of the possible factor-analysis solutions suggested by the scree test and an appropriate level of specificity, an 8-factor solution seemed the most appropriate (e.g., differentiating hyperactivity and oppositionalism). Symptom clusters were based on 5 of the 8 factors. The other three factors were not represented as clusters, because items loading on those factors occurred infrequently or were considered less important by treatment personnel.

The revised TPC included 34 items, 27 of which were grouped into symptom clusters based on the factor analysis (see Table 1). Those clusters were Aggression (6 items; coefficient alpha = .79), Covert (5 items; alpha = .64), Hyperactivity (5; .80), Internalizing (5; .58), and Oppositional (6; .89). The other 7 items on the TPC were behaviors that were very important but occurred infrequently (e.g., substance abuse). Supervisors need to track these behaviors, but they are not as useful for trends over time because of their low frequency.

Discussion

We made several other changes to enhance the final Treatment Progress Checklist. First, we added two items to record clinically relevant changes and events. The first records a change in psychotropic medications. The second represents a clinically relevant event such as a treatment modification or a significant family event. In both cases, the TPC records the timing of events so that graphical reports can show whether symptom rates changed following such events.

Second, each treatment program could add program-specific items that were relevant to their program (e.g., seclusions). In this way, the Treatment Progress Checklist could flexibly serve the unique needs of each treatment setting, but the 34 core items remained the same. Third, the item "No Items Applicable" was added. This was needed to discriminate missing data from days or shifts when no applicable symptoms were observed.

Finally, we improved the computer program for graphical trend reports. This made the reports more user friendly and more concise.

Table 1
Ranked Importance, Frequencies, and Factor Loadings of Cluster Item

Item	*Staff Votes* [a]	*Mean Days/Month* [b]	*Factor Loading* [c]
Agression Cluster			
Physical Aggression (Objects)	21	2.7	.75
Physical Assault (Adults)	18	1.2	.77
Threatening	17	1.6	.65
Property Damage	14	0.5	.46
Physical Assault (Peers)	4	0.7	.43
Physical Assault Attempt	NA	NA	NA
Oppositional Cluster			
Arguing	24	17.6	.69
Swearing, Obscenities	22	6.5	.67
Not Participating in Program	21	3.7	.64
Complaining	19	18.1	.70
Defiance	19	14.3	.59
Irritable Mood	18	8.6	.74
Hyperactivity Cluster			
Off-task Behavior	21	10.0	.69
Interrupting Often	16	4.8	.60
Homework Incomplete	14	2.0	.56
Talking Excessively	13	5.8	.35
Fidgeting	12	5.1	.66
Covert Cluster			
Lying / Cheating	20	1.6	.47
Teasing / Provoking	19	6.6	.47
Inappropriate Boundaries	18	2.9	.38
Secretive / Suspicious Behavior	13	2.4	.71
Stealing	13	0.2	.49
Internalizing Cluster			
Crying	19	6.0	.66
Somatic Complaints	15	2.9	.33
Withdrawn	15	1.1	---- [d]
Negative Self Statements	15	1.9	.34
Pouting	12	9.1	.60

[a] The number of 25 direct-care staff and supervisors who included the item among their most important 25 items (out of 52 initial items).
[b] The mean number of days per month the average youth engaged in each behavior.
[c] Factor loading on factor corresponding to that cluster NA = Not available because item is new).
[d] Factor loading < .30

Conclusion

Efficient during-treatment evaluations, such as the Treatment Progress Checklist, are promising because practitioners view them as directly relevant to their needs. Only during-treatment data will help with the practitioner's question, "Is this treatment working right now with this particular client?" We have found that TPC graphs of symptom trends are very useful for evaluating treatment progress and treatment modifications.

The symptom graphs also help the practitioner to communicate effectively about the youth. We have found them advantageous in utilization reviews in order to advocate for extended financial coverage from managed care organizations. Occasionally these graphs help us make a successful case against discharging a youth to their own home, based on symptom increases near home visits. Sometimes it is useful to show the TPC graphs to the youth themselves as feedback about their overall progress.

Other assessments of during-treatment data have been developed recently, e.g., the Outcome Questionnaire (Lambert & Brown, 1996) and the Vermont Community Adjustment Tracking System (Bruns et al., 1998). Practitioners have found these evaluations of during-treatment progress to be very helpful. They are more invested in the quality of the data when it meets their central needs. Future research can explore how during-treatment data can be aggregated to meet other evaluation needs in typical treatment agencies (Jones et al., 2000). The Treatment Progress Checklist and the Vermont system may be the best-developed assessments for tracking during-treatment symptoms in children and adolescents.

References

Bruns, E. J., Burchard, J. D., Froelich, P., Yoe, J. T., & Tighe, T. (1998). Tracking behavioral progress within a children's mental health system: The Vermont Community Adjustment Tracking System. *Journal of Emotional and Behavioral Disorders, 6*:19-32.

Chamberlain, P., & Reid, J. B. (1987). *Parent observation and report of child symptoms.* Behavior Assessment, 9:97-109.

Daly, D. L., Schmidt, M. D., Spellman, D. F., Criste, T. R., Dinges, K., & Teare, J. (1998). *The Boys Town Residential Treatment Center: Treatment implementation and preliminary outcomes.* Child & Youth Care Forum, 17:267-279.

Fishman, D. B. (1999). *The case for pragmatic psychology.* New York: New York University Press.

Howard, K. I., Moras, K., Brill, P. L., Martinovich, Z., & Lutz, W. (1996). Evaluation of psychotherapy: Efficacy, effectiveness, and patient progress. *American Psychologist, 51*:1059-1064.

Jones, M., Larzelere, R. E., Smith, G. L., & Chmelka, M. B. (2000). Multiple uses of daily data: From treatment planning to program outcomes. In C, Liberton, C. Newman, K. Kutash, & R. M Friedman (Eds.), *The 12th Annual Research Conference Proceedings, A System of Care for Children's Mental Health: Expanding the Research Base* (pp. 89-92) Tampa, FL: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Research and Training Center for Children's Mental Health.

Lambert, M. J. & Brown, G. S. (1996). Data-based management for tracking outcome in private practice. *Clinical Psychology: Science & Practice, 3*(2), 172-178.

CONTRIBUTING AUTHORS

Robert E. Larzelere, Ph.D.
Research Scientist, 402-498-1936, Fax: 402-964-7150;
E-mail: larzelerer@boystown.org

M. Beth Chmelka, B. A.
Research Analyst, 402-498-3213, Fax: 402-964-7150;
E-mail: chmelkab@boystown.org

M. Diane Schmidt, M.H.D.
Director of Program Data Management, 402-498-3074, Fax: 402-498-3256;
E-mail: schmidtm@boystown.org

Mark Jones, Ph.D.
Director, Specialized Treatment Group Home, 402-498-3367, Fax: 402-498-3339;
E-mail: jonesm@boystown.org

All authors: *Girls and Boys Town, Youth Care Bldg. 13603 Flanagan Blvd., Boys Town, NE 68010*

Use of the CAFAS and Case Reviews for Outcome Evaluation: Outcome Relevant Information Approach to Serving Children

Pat Wade

Introduction

Since 1994, the Tennessee Commission on Children and Youth has used the Children's Program Outcome Review Team (CPORT) system to assess both the functioning of children in state care and the adequacy of the services to meet the needs of these children. The CPORT evaluation system is based on a service testing approach (Groves & Foster, 1994) and uses a random sample of youth in state custody. This process provides essential information for key stakeholders and policymakers to help guide new policies that will enhance the well being of children.

Method

Tennessee serves about 11,300 children annually through its twelve regional offices. CPORT requires the selection of a stratified random sample of youth to represent each region as well as the population served statewide. It was predetermined that a sample size of 583 youth would be statistically sensitive for a regional analysis and from that sample, 348 youth were randomly selected to represent the statewide population.

The CPORT process uses the review of case records (e.g., social histories, psychological evaluations, permanency plans) and structured interviews for each youth in the sample. Structured interviews are conducted with all relevant people in the child's life (e.g., child (if age appropriate), parent(s), custodial department worker(s), caregiver(s) (foster parent or direct care staff in a group facility), court representative(s), teacher(s), and other relevant service providers).

The staff member assigned to review a case must consolidate the information gathered and provides a narrative summary. Additionally, the staff member completes a "Summative: Assessment of Key Domains" form that provides a global assessment in two domains: (1) the overall functioning or status of the child and family and (2) the adequacy of the service system in meeting the needs of the youth. Each domain is rated as either negative (inadequate) or positive (adequate). Each domain contains critical indicators when rated negative result in a negative rating for the entire domain (see Table 1).

One of the assessments of mental health functioning used with the CPORT is the Child and Adolescent Functional Assessment Scale (CAFAS). The CAFAS is a multidimensional measure of the degree of impairment in functioning in children and adolescents secondary to emotional, behavioral, or substance use problems (Hodges & Wong, 1996, 1997). Scores were generated for eight areas assessing the child: Role Performance: Home, School, and Community; Moods/Emotions, Behavior Towards Others, Thinking, and Substance Abuse. Each scale is rated for extent of impairment: severe, moderate, mild, and none/minimal. A rating of severe or moderate impairment served as the criteria of "Needs Treatment." Inclusion of the CAFAS in the process provides useful information about the mental health functioning of the youth and supports the validity of the other types of information collected in the review. The CAFAS also provides CPORT with information regarding treatment needs of each youth and documents trends and changes in all youth that could potentially impact the service delivery system.

Results

From the original sample of 348 youth selected for the statewide analysis, 54 cases were excluded because of missing data or the youth was not old enough to have a completed CAFAS (i.e., not between the ages of 4 and 18) leaving a sample of 294 youth. Of these youth, 56% were adolescents and 24% had been adjudicated as delinquent with most offenses being serious (e.g., assault, possession

Table 1
Indicators Reviewed for Assessment of Two Domains within the *Summative: Assessment of Key Domains* Instrument

Status of Child/Family	*Service System Functioning*
1. Safety*	1. Assessment**
2. Emotional Well-being*	2. Long-term View**
3. Physical Well-being*	3. Child Participation**
4. Caregiver Functioning*	4. Family Participation**
5. Stable Home	5. Service Plan Design**
6. Permanence	6. Service Plan Implementation**
7. Appropriateness of Placement	7. Service Coordination**
8. Educational Progress	8. Monitoring/Change**
9. Family Unification	9. Advocacy
10. Independent Living (13+)	10. Early Child and Family Intervention
11. Child Satisfaction	11. Home and Community Resources
12. Family Satisfaction	12. Placement Resources
13. Overall Status	13. Supportive Interventions to Achieve Goal
	14. Urgency Response
	15. Progress Achieved-Child
	16. Progress Achieved-Family
	17. Overall Status

* If any indicators are scored as unsatisfactory, the overall status of the child defaults to negative.

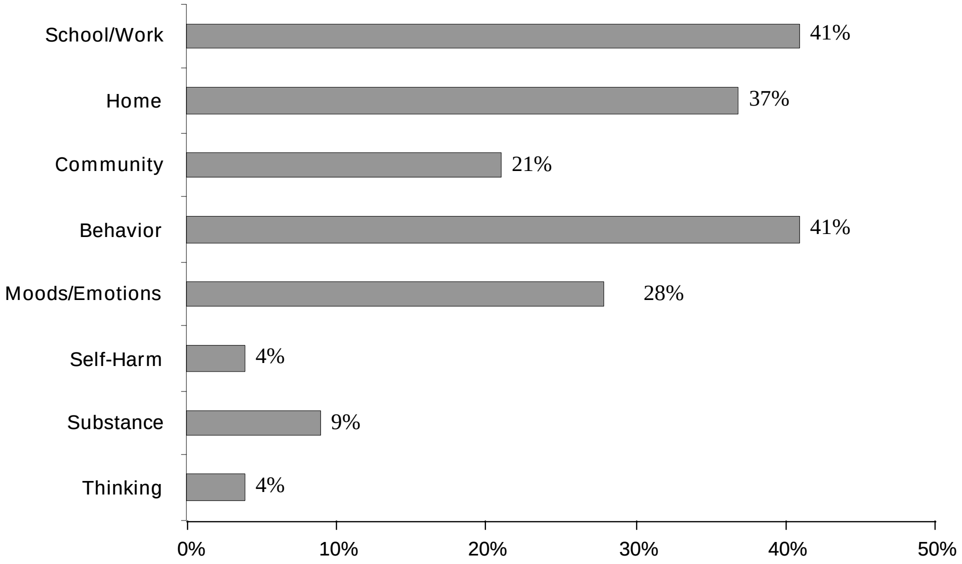
** If any indicators are scored as unsatisfactory, the overall status of service system performance defaults to negative.

of controlled substance/other drug offenses, theft of property, burglary, motor vehicle theft). Of the youth who were adjudicated delinquent, 62% had been diagnosed with a mental health disorder.

CAFAS results. The majority of youth were rated as having some level of impairment due to a mental health disorder. Sixty-two percent of the youth rated as either having a mild, moderate or severe level of impairment on at least one subscale of the CAFAS while 44% were rated as having either a mild, moderate or severe level of impairment on two or more subscales of the CAFAS. Thirty-nine percent of the youth rated as either having a moderate or severe level of impairment on at least one subscale of the CAFAS. Figure 1 presents the percentage of youth with ratings of moderate or severe impairment for each of the CAFAS subscales.

Total scores from the CAFAS further indicated that this group of youth was in need of specialized and long-term services. Using the treatment guidelines provided by the author of the CAFAS, the total scores for the current sample indicated that 38% of the youth required supportive intervention, 22% needed short term treatment (up to six months), 15% were in need of periodic treatment over a 6-24 month period, and 25% needed long-term treatment (1-5 years).

Figure 1
Percentage of Youth with Moderate or Severe Rating on Subscales of CAFAS
(N=294)



Risk factors. Conditions that may contribute to the youth entering or remaining in custody are part of the "Critical Issues" section of the CPORT assessment. This information may be used to identify services for implementation early in a child's life to prevent custody and for programs and services necessary once entering custody. The percentage of risk factors for the current sample and for past samples is provided in Table 2.

Summative Ratings. The percentage of youth rated as having adequate or positive functioning on the Status of Child Section of the "Summative: Assessment of Key Domains" assessment was 84%. While the majority of children were rated as having adequate functioning, it should be noted that the rating of "negative" on the emotional well-being indicator continues to be the primary reason for a case to be rated as negative. For those youth rated as having inadequate functioning in emotional well-being, the issues that needed to be addressed by service providers included physical/ sexual abuse, grief/separation/loss, and/or abandonment, especially for children ages 13 and over.

The percentage of youth rated as having access to an adequate services system to meet their needs was 42%. The weakest system for this sample was in permanency plan design with only 63% youth rated as having adequate services in this area, followed by assessment with only 68% of the youth rated as having adequate services in this area. It is believed that these service deficits may have contributed to families making inadequate progress, especially for children in foster placement, and have caused some children to remain in custody longer than necessary.

The overall rating of 84% of the youth having adequate functioning is a sight decline of the rating from last year of 87%. Similarity, the overall rating of 42% of the youth having access to an adequate service system is also a slight decline from last year of 46%.

Table 2
Percentage of Youth in Custody with Selected Risk Factors by Year

Risk Factors	*1996*	*1997*	*1998*	*1999*	*2000*
Children adjudicated delinquent with substance abuse	64%	63%	67%	68%	74%
Children adjudicated dependent/neglect	67%	65%	68%	72%	68%
Children with no relationship with father	54%	65%	61%	63%	65%
Children of parents with substance abuse issues	54%	63%	65%	64%	62%
Children of parents incarcerated	47%	51%	57%	55%	59%
Children with a reported mental health diagnosis	53%	42%	31%	36%	38%
Children with no relationship with Mother	*	*	*	14%	35%

*Data not available for these years

Discussion

The purpose of this outcome evaluation was to measure the effectiveness of the service delivery system. Service testing on a case by case basis focused on the status of children and families receiving services and the ability of the system to adequately meet their needs. The success of system reform depends on community participation, political support, and motivated service providers and agencies working together to make decisions regarding treatment needs and treatment services, and to document trends and changes that impact the system service delivery. Effective use of outcome evaluation results depends on key stakeholders understanding the process and how results can be used for system improvement. CPORT continues to assist in stimulating positive system change. The process serves as both a road map and a compass. It shows us where we are, and points us in the direction we need to go for continuous improvement in the delivery of services to children and families.

References

Groves, I., & Foster, R. (January, 1994*. Planning a system for performance and outcome reviews using a service testing approach for monitoring* Tennessee Children's Services. A paper for use by the protocol design team.

Hodges, K. (1990,1994 revision) *Child and Adolescent Functional Assessment Scale*. Ypsilanti, MI: Eastern Michigan University, Department of Psychology.

Hodges, K., & Wong, M. M. (1996) Psychometric characteristics of a multidimensional measure to assess impairment: The Child and Adolescent Functional Assessment Scale. *Journal of Child and Family Studies*, *5*, 445-467.

Hodges, K., & Wong, M. M. (1997). Use of the Child and Adolescent Functional Assessment Scale to predict service utilization and cost. *Journal of Mental Health Administration, 24,* 278-290.

CONTRIBUTING AUTHOR

Pat Wade, M.A.
Director of Children's Program Outcome Review Team, Tennessee Commission on Children and Youth, Andrew Johnson Tower, 9th floor, 710 James Robertson Parkway, Nashville, TN 37243-0800; 615-741-2633, Fax: 615-741-5956;
E-mail: pwade@mail.state.tn.us

Implementation of the Child and Adolescent Functional Assessment Tool: Service Provider Perspectives

Katherine M. Boydell
Melanie Barwick
Bruce Ferguson
Rebecca Haines

Introduction

In the Toronto children's mental health system, the lack of a shared outcome measurement tool among service providers has contributed to a service delivery system in which assessment and treatment are often uncoordinated and treatment effectiveness is seldom addressed. Without a consistent set of baseline measures, there has been no uniform way to evaluate the effectiveness of particular interventions. Within the current system, there are numerous assessment tools used by different types of service providers. However, most focus on the measurement of specific symptoms or assign a diagnosis. The resulting problem is that symptom-specific tools often have too narrow a focus and are not sensitive to general levels of functioning. Furthermore, diagnoses are categorical and are insensitive to important changes in day-to-day functioning. Recently, service providers working within the local mental health system have recognized the need for a broad measure of the level of functioning with the capacity for use across a range of children's mental health disorders. In response to this need, a report was commissioned by the Ontario Ministry of Community and Social services to review and identify potential instruments for standardized assessment and outcome across the province (Raphael, Weir, Weston, Lines, & Pettingill, 1999). The review concluded that the Child and Adolescent Functioning Assessment Scale (CAFAS; Hodges & Wong, 1996) shows great promise as an outcome measure. The CAFAS is a comprehensive measure of child and adolescent functioning. It has demonstrated good reliability, validity, clinical acceptability and utility as an outcome measure, making it one of the leading instruments in child functional assessment.

Consequently, the Community Health Systems Resource Group at The Hospital for Sick Children provided the research coordination, funding and support for eight children's mental health organizations to partner together to form the Toronto CAFAS study group. The goal of this group was to examine the feasibility of implementing the CAFAS across the service delivery system in Toronto.

Purpose

The purpose of this study was to conduct a process evaluation to assess the feasibility, clinical utility and implementation process of the CAFAS from the perspective of service providers. Process evaluation allows implementers to document the success of achieving high levels of satisfaction among participants, examine problems encountered in implementing the plan, and solicit suggestions for improvement.

Study research questions included:

- What is the level of satisfaction with CAFAS training?
- What is the ease with which clinicians achieve reliability in scoring?, and,
- What is the clinical utility of CAFAS, i.e. use in clinical formulation, triage, treatment and discharge planning?

Methods

In order to determine the perception of service providers from the eight participating agencies, several strategies were utilized. Semi-structured, open-ended key informant interviews were conducted with 40 % of the clinicians (*N* = 17) who had participated in CAFAS training. These clinicians were purposively selected by the project coordinator to represent their range of experience (i.e., through personal conversation and reliability ratings). These interviews were designed to assess clinician's perceptions of the training (e.g., satisfaction, establishing reliability, what worked and what didn't), and actual use of the CAFAS (e.g., ease of collection, scoring, time required, use in case formulation). A survey was mailed to the 57 service providers who participated in the CAFAS training with a response rate of 50%. Following the pilot, two focus groups were held with a sample of participants to discuss the results of the interviews and survey.

Results

Satisfaction with Training

Survey results demonstrated that close to 90% of respondents were satisfied to very satisfied with the CAFAS training. CAFAS training was provided by Kay Hodges in a one day training session, with follow-up and reliability support provided by The Hospital for Sick Children. Interview respondents indicated that "real" clients were far easier to rate than the descriptions of clients provided in the training vignettes. Respondents were unanimous in suggesting that training would benefit greatly by having all training vignettes rated as part of the training session. It was extremely difficult to budget the time to do so outside of the training session.

Ease of Establishing Inter-Rater Reliability

Although there was a range of experience in how quickly reliability was achieved, most respondents (85%) stated that they were satisfied to very satisfied with the ease of establishing reliability. The most experienced staff had the most difficulty because they made assumptions about the scales (i.e., the nature of client difficulties). Service providers stated that they had difficulty because they projected their own interpretations instead of focusing on specific words and behaviors. The caregiver scales were the most difficult to rate reliably, but clinicians found that it became easier to rate reliably over time.

Clinical Utility

When asked about the usefulness of the CAFAS for case formulation, almost two-thirds of respondents (61%) stated that they were satisfied to very satisfied. It was pointed out that the CAFAS needs to be used frequently in order to overcome concerns voiced by beginners that it appeared to be a complicated and lengthy instrument to administer. Respondents stated that the CAFAS ensures that workers focus comprehensively on all domains of functioning and that it was useful in showing the family how the child's functionality had changed. The value in tracking changes over time in order to examine program impact was also frequently mentioned. There were concerns about the use of this instrument with particular populations. For example, many of the behaviors measured by the CAFAS did not fit well with developmentally delayed groups.

Conclusion

This innovative project marks the first time the local Toronto child mental health system has utilized a standard outcome measure. It is important to obtain the input from those who use the tool so that recommendations can be incorporated into future training and implementation plans that would facilitate use and encourage adoption of the instrument. In fact, the findings of this feasibility study were used to tailor the training program for a subsequent province-wide CAFAS implementation initiative. For example, the training session was expanded to two full days, which included time for completion of vignettes.

References

Raphael, Weir, Weston, Lines, & Pettingill. (1999). *Report commissioned by the Ontario Ministry of Community and Social Services.* Unpublished.

Hodges, K., & Wong, M. M. (1996). Psychometric characteristics of a multidimensional measure to assess impairment: The Child and Adolescent Functional Assessment Scale. *Journal of Child and Family Studies, 5*, 445-467.

CONTRIBUTING AUTHORS

Katherine M. Boydell, MHS.c., Ph.D.
Sociologist, Health Services Research Scientist, Community Health Systems Resource Group, Associate Scientist, Population Health Sciences, The Hospital for Sick Children, and Assistant Professor, Departments of Psychiatry and Public Health Sciences, University of Toronto, 555 University Avenue, Toronto, Ontario, M5G 1X8; 416-813-8469, Fax: 416-813-6011; E-mail: katherine.boydell@sickkids.ca

Melanie Barwick, Ph.D., C.Psych.
Psychologist, Community Health Systems Resource Group, Research Associate, Population Health Sciences, The Hospital for Sick Children, and Assistant Professor, Departments of Psychiatry and Public Health Sciences, University of Toronto, 555 University Avenue, Toronto, Ontario, M5G 1X8; 416-813-1085, Fax: 416/813-6011;
E-mail: melanie.barwick@sickkids.ca

Bruce Ferguson, Ph.D., C.Psych.
Head, Community Health Systems Resource Group, The Hospital for Sick Children, and Professor of Psychiatry, Psychology and Public Health Sciences, University of Toronto, 555 University Avenue, Toronto, Ontario, M5G 1X8; 416-813-8846,
Fax: 416-813-6011; E-mail: bruce.ferguson@sickkids.ca

Rebecca Haines, M.A.
Project Analyst, Community Health Systems Resource Group, The Hospital for Sick Children, Department of Public Health Sciences, University of Toronto, 555 University Avenue, Toronto, Ontario, M5G 1X8; Fax: 416-813-6001

Topical Discussion

Representing and Navigating the World: Steps Toward Assessing Native-American Youth

Chair
Robin E. Soler
Discussant
Lisa Lopez Levers
Authors
Winston M. Turner
Leslie Young
Gabrielle S. Powell

Introduction

The Comprehensive Community Mental Health Services for their Children and Families Program, administered by the Child, Adolescent, and Family Branch within the Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Mental Health Services (CMHS), has provided funding to 67 states, counties, communities, territories, and Native American tribes to develop, improve or expand their systems of care to meet the needs of children and adolescents with serious emotional disturbances (SED) and their families. Each grant community is required to participate in a national evaluation of the service system, service provision and child outcomes. This national evaluation is tailored to respond to the goals of the overall Comprehensive Community Mental Health Services for their Children and Families Program initiative, though grant communities are also encouraged to supplement the evaluation process to meet local needs.

In attempting to meet a federal mandate and address the complexities of the program, the national evaluation includes many measures. While initiated in 1994, the national evaluation has had its own unique set of challenges throughout its history. The ideas presented in these papers take a proactive approach to critically examining the national evaluation and the concept of evaluation in general. These ideas are provided by evaluators of three of the eight Native American and Alaskan Native tribal grant communities. The content of these papers reflect an ongoing conversation that the grant communities have among one another and with members of the national evaluation team. The intent of this conversation (and of these summaries) is to develop an understanding of if and how child functioning can be assessed within each Native American and Alaskan Native community in a manner that is congruent with the overarching goals of the Comprehensive Community Mental Health Services for their Children and Families Program.

An Important Context for Indigenous Research

Winston M. Turner

It is not a pleasant task to analyze the history of North American settlement by European immigrants from the perspective of the indigenous populations of this continent, but it is necessary to do so if one is to begin to comprehend the full impact of those events. It is easy to dismiss the processes of colonialism and slavery as "ancient history." And it is extremely uncomfortable to realize that although these events occurred centuries ago, their impact is still being felt by the direct descendents of those who were colonized and/or enslaved. As members of the "dominant culture," most of us are rarely forced to confront either the reality of what our ethnic ancestors did to the native peoples on this continent, or the impact that our current behavior as researchers has on those same descendants. The following material summarizes and paraphrases the work of Smith (1999). Linda Tuhiwai Smith, the Maori author of *Decolonizing Methodologies* (1999), makes a compelling case that dominant culture researchers need to understand their own biases and assumptions regarding indigenous populations before attempting to conduct research "on them." She makes a strong case that the colonization perspective continues to dominate most research involving indigenous peoples and that this mind-set seriously distorts research results.

European explorers and adventurers set sail across the Atlantic in search of new trade routes and expanded resources. The "New World" they encountered was found to be rich in natural resources (game, forests and minerals). It provided Europeans a new avenue for expansion of their influence, a new source of raw materials for trade and manufacturing, and new markets for their own goods. The Europeans exported settlers to the new lands, and with them diseases for which the indigent peoples had no natural immunity. Many of the Europeans were welcomed to the continent by friendly and generous native populations, but soon the Europeans overwhelmed the native populations. The indigenous peoples lost their land, their language, and their culture, as a direct result of the invasion of Europeans over 400 years ago. The indigenous peoples of North America became colonized in their own land.

Our European ancestors systematically imposed their values and language on these colonized peoples. They placed the indigenous people onto reserved wastelands; they created schools and churches to teach the natives European traditions, language and world-views, while prohibiting them to continue their own traditions or use their own language. They renamed the lands, lakes and mountains. And they wrote treaties with the indigenous peoples as they stole their land. This was all done in the name of "civilization of the native savages" and "taming of the wilderness."

Knowledge of the indigenous peoples was brought back to Europe as trophies. Europeans studied the natives as specimens. They were viewed as somewhat less than human, having primitive pantheistic belief systems, pagan rituals, with no written language or history. They were described as barely surviving, living a subsistence lifestyle in the wilderness.

The attitudes of our European ancestors were both arrogant and ignorant. It was arrogant to dismiss that which was not well understood, and it was ignorant to dismiss the successful survival of the indigent peoples for over 12,000 years, and not to understand their reverence for the land and its bounty. These indigenous communities had succeeded in thriving on the land without destroying it or diminishing its value. They had a rich oral history and complete social systems. The Western invaders failed to appreciate or understand the societies they were invading and destroying.

Western research has developed from a long tradition based on the European world-view. The Age of Enlightenment and the Renaissance have given we Europeans a sense of entitlement over knowledge and scientific inquiry. The history that is taught in European society is the linear progression of civilization from the most primitive to its current pinnacle in Western society. This time-line is then used as the metric against which all other societies are assessed. Those that have failed to "evolve" to the point of being able to write their own histories are considered primitive or pre-literate. Those societies that have exceeded the written history threshold are then further assessed based on their mastery of the scientific method. Indeed, it is scientific inquiry that we in the West consider our ultimate achievement and a direct reflection of our superior intellect.

Whether or not we feel guilty about or embarrassment for our ancestors' behaviors is a personal matter. But once we have seen our unfamiliar and uncomfortable image reflected back to us from the perspective of our colonized indigenous neighbors, we have a clear choice. We may not be able to personally change the current social structure, but hopefully we can do our part to not further its destructive impact through our own ignorance and arrogance.

This is not to say that it is impossible or undesirable to conduct research in indigenous communities. What it does say is that it is necessary to respect the sovereignty of these communities. We need to work *with* the Native community to design a research effort that reflects *their* interests and perspectives, that incorporates *their* hypotheses, and reflects *their* world-view and epistemology. Indigenous research, as opposed to Western, European research, needs to be a cooperative venture with the local community. We need to work with each of the local communities, not just study them.

Assimilation into the dominant culture has taken a tremendous toll on Native cultures, some of it irreversible. Some Native American peoples have managed to survive, even under colonialism. Many of their languages are extinct, or nearly so, and many traditions have been lost. But some have survived. We need to recognize those that have survived and work to foster their preservation. We must not continue to force our own values onto the indigenous peoples. Quantitative research methods using measures that have been standardized on European samples will generally not capture the more subtle nuances of some of these local interventions. Alternative approaches are needed.

References

Smith, L. (1999). *Decolonizing methodologies: Research and indigenous peoples*. London: Zed Books.

A Qualitative Assessment Tool

Leslie Young

Children are part of a broadly defined and complex social world, however, who they are and their experiences are often not discussed within an environmental or ecological context. In the mental health arena, this can lead to inaccurate diagnosis and treatment, or ineffective diagnosis and treatment. Recent attempts to quantitatively assess youth functioning and program effectiveness as part of a national evaluation effort led to local community frustrations related to this decontextualized approach. These frustrations were particularly salient in Native American and Alaskan Native Communities and stem from: the lack of contextual consideration of chosen measures; bias towards a definition of treatment and functioning based on middle-class Western ideals; and respondent burden.

A group of Native American and Alaskan Native System of Care grantee site evaluators and stakeholders and National Evaluation team members are collaborating to develop an alternative model for assessing youth functioning which avoids some of the pitfalls of some of the National Evaluation instruments. We began with two questions: how do you assess child functioning in a system of care which, *by definition,* breaks with the principles underlying conventional mental health delivery systems? And how do you assess child functioning in Native American and Alaskan Native communities where non-Western values and practices are at the very heart of the healing process? As we continue to discuss these questions we realize our emerging answers really dovetail and lead us back to some of the core principles underlying a systems of care philosophy, the wraparound process, and the non-Western treatment approaches used in many Native communities.

In brief, we borrow from Terry Cross (1995, 1998, 2000) and a history of Native American thinking that offers a way of seeing that is more consistent with many Native American cultural patterns than the standard western concepts of health and illness. Cross (1995) refers to this way of seeing as the relational world view and includes four quadrants of a circle, each representing an arena that plays a role in personal balance and ultimately, well-being. This relational worldview represents an interactive, ecological system that is constantly changing.

We conducted two focus groups in the Sault community to discuss this alternative youth functioning model: the first was with the Project staff and the second was with the Community Evaluation Advisory Committee. The four quadrants, which emerged from these discussions, were mind, body, spirit and emotions. The underlying principle for all aspects of human, family, and community functioning is spirituality. If the spirit is out of balance that lack of balance will manifest itself physically, mentally, and emotionally.

Both focus groups endorsed the use of an alternative, circular or relational model for two purposes: first, to assess youth functioning as part of an overall baseline evaluation before services are provided and, second, to guide the wraparound or family treatment planning process. One proposal is that a youth's functioning in the four quadrants could be graphed on the axes of a circle so it would be easy to see in what areas a youth might be "off center" or "out of balance." A family treatment planning team, including the youth themselves, would be able to draw a circle representing that youth's functioning and discuss what services are needed for the youth (and family) to reestablish balance and harmony. At this point, to flesh out a workable model, more focus groups need to be conducted in the Sault and in other Native American and Alaskan Native communities.

References

Cross, T. (1995). Understanding family resiliency from a relational world view. In H. McCubbin, E. Thompson, A. Thompson and J. Fromer, (Eds.), *Resiliency in ethnic minority families, Vol. 1: Native and immigrant American families*. Madison: University of Wisconsin.

Cross, T. (1998). Understanding family resiliency from a relational world view. In H. McCubbin, E. Thompson, A. Thompson and J. Fromer (Eds). *Resiliency in Native American and immigrant families, Resiliency in families series, Vol. 2*. Thousand Oaks, CA: Sage Publications.

Cross, T., Earle, K., Echo-Hawk Solie, H., & Manness, K. (2000). Cultural strengths and challenges in implementing a system of care model in American Indian Communities. *In Systems of Care Promising Practices in Children's Mental Health 2000 Series, Vol. 1*: Washington, DC. USDHHS.

Conducting Ethical Social Research within Communities

Gabrielle S. Powell

The above context presents a challenge to designing and implementing program evaluation efforts in Indian Country; however, one model does exist that can create an environment that is responsive to the needs of all the stakeholders: the program staff, the consumers of services, and the funders. Action research, or more specifically Participatory Action Research (PAR), can be used to collaboratively develop evaluation strategies for complex community initiatives (such as the Comprehensive Community Mental Health Services for Children and Their Families Program).

French & Bell (1995) offer two complementary definitions of action research as it relates to organizational development:

1. Action research is the process of systematically collecting research data about an ongoing system relative to some objective, goal, or need of that system; feeding these data back into the system; taking action by altering selective variables within the system based both upon the data and on hypotheses; and evaluating the results of actions by collecting more data (p. 138).
2. [A]ction research is the application of the scientific method of fact-finding and experimentation to practical problems requiring action solutions and involving the collaboration and cooperation of scientists, practitioners, and laypersons (p. 140).

Essentially, the first definition above, when operationalized, is generally considered to be among an organization's "quality assurance" activities. However, the second definition broadens the scope of these activities beyond quality assurance; action research "listens" to the needs of various constituency groups, which leads to identifying other "problems" or concerns, and seeking solutions.

Recipients of the SAMHSA comprehensive community mental health program grants are engaged in both national and local systems change in order to meet children's mental health needs through the coordination of the juvenile justice, child welfare, mental health, health and education systems. These recipients may also face the challenge of being start-up, grass-roots level mental health service providing entities. Further, these grantees are involved in empowering children with severe emotional and behavioral challenges and their families to have a voice or say in the development of their treatment programs and strategies; one very common mode of empowered treatment coordination is through "wraparound" family/professional partnership teams. Thus, local grantees have three environments that they seek to impact: the community's local human service systems; their own organization; and their individual clients and their families. Fortunately, these grantees have the organizational support from SAMHSA to retain on-site evaluators and establish customized local evaluation plans for assessing the impact of their initiative.

A key to a healthy relationship with evaluation work in Indian Country is for the organization (such as a SAMHSA grantee) to create a climate where collaborative, community-invested evaluation research can be seen as:

- A tool to facilitate "quality assurance" activities;
- A system of data collection, analysis, and feedback (relevant to the various constituencies); and
- A resource for establishing and reviewing the long-range strategy or Theory of Change of a complex community initiative.

Today, it is not uncommon for research and analysis to be conducted at a distance, with data being transmitted electronically*: e-valuation*. However, all the stakeholders need access to information and the tools to be able to gauge whether an initiative is working—and they need to be included in that process of determining the value of the data collected and its interpretation: *we-value-ation*. This can be translated into: We value the process, or we value action. Stakeholders need to have a commitment to the ultimate potential of evaluation. Through valuing the actions needed to understand and evaluate an organization or initiative, there can positive movement towards organizational development and systems change.

References

French, W. L., & Bell Jr., C. H. (1995). *Organizational development: Behavioral science interventions for organization improvement*. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Discussion

Lisa Lopez Levers

Many federally funded projects, including the National CMHS Evaluation, have mandated evaluation protocols that are comprised largely of standardized psychometric tests. This is problematic for a number of reasons. First, using such psychometric tests for project evaluation purposes does not necessarily reflect the intentions for which the tests were originally designed. Second, such tests largely have been normed using middle-class Anglo samples, and therefore are not representative of the diversity of sites included in the National CMHS Evaluation Project. Third, such protocols are based on underlying assumptions about child development that are, at least in part, erroneous–ontologically and epistemologically. These assumptions are rooted in linear, positivist theories and behavioral models of Western psychology that are deficit based, exclude cultural context, and view psychopathology as residing within the individual. Fourth, the evaluations have been inaugurated in the typical mode of a hypothesis-testing Western scientific method. This assumes, *a priori*, that we understand the phenomenologies of childhood, of serious emotional and behavioral disorders (SEBD) among children and youth across all cultural domains, of the effects of SEBD on all families and communities, and of the lived experiences across all non-Anglo communities in the U.S. This, of course, is not true.

The members of this panel have elected to approach the task of assessing Native American Indian youth from a more culturally respectful stance. This stance endorses, as a beginning point, asking Native American Indian communities about their children, about their conceptualizations of child development, and about their child rearing practices. Using an ecological perspective (Bronfenbrenner, 1979; Bronfenbrenner & Ceci, 1994) as a theoretical framework, we recognize the contextual and interactive dynamics at play in the lives of children. We assert that culture carries meaning, and therefore, must be considered as paramount in any theory of child development that is utilitarian; this dimension has been lacking in the federally mandated protocols.

A final problem with the mandated protocols relates to policy implications, an issue of great sensitivity and concern within Native American Indian communities. In a recent publication, *From Neurons to Neighborhoods: The Science of Early Childhood Development*, the National Research Council and Institute of Medicine (2000) indicate that many policy decisions that affect children and their families are made independently of any consideration of the body of scientific knowledge about child development. Some in the Native American Indian community worry that current social science research perhaps constitutes a new wave of colonialism, and that policy determinations based on faulty evaluations–that is, evaluation designs not informed by evaluators having sufficient cultural competencies–may be detrimental to the health of their communities and the welfare of their children. We need to address some very important questions: Do we want to replicate the kind of policy decision making patterns identified in the National Research Council and Institute of Medicine publication? Do we really want to reconstruct a structure of neo-colonialism? Is this the world we want our youth to navigate?

In this summary, the various panel members provided the following: a definition of terms; an introduction to the fuller context of assessing Native American Indian children and youth; a statement of the problem within its historic, colonial, and post-colonial contexts; a report of the progress on designing a culturally sensitive evaluation protocol; and a discussion of the imperatives of community empowerment. We propose that Participatory Action Research (McTaggart, 1997; Selener, 1997) and Rapid Appraisal Methods (The United States Agency for International Development, 1996) offer ways of thinking about evaluation strategies that are more culturally appropriate than the currently mandated protocols. Commonly used Rapid Appraisal Methods include Key Informant Interviews, Focus Groups, Community Interviews, Direct Observation, and Mini-surveys. Participatory Action Research seeks ways to encourage participation and ownership by all community members.[1]

References

Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.

Bronfenbrenner, U., & Ceci, S. J. (1994). Nature-nurture reconceptualized in developmental perspective: A bioecological model. *Psychological Review, 101*, 568-586.

McTaggart, R. (Ed.). (1997). *Participatory action research: International contexts and consequences*. Albany: State University of New York Press.

National Research Council and Institute of Medicine. (2000). *From neurons to neighborhoods: The science of early childhood development*. Committee on Integrating the Science of Early Childhood Development. J. P. Shonkoff & D. A. Phillips (Eds.). Board on Children, Youth, and Families, Commission on Behavioral and Social Sciences and Education. Washington, D.C.: National Academy Press.

Selener, D. (1997). *Participatory action research and social change*. Ithaca: The Cornell Participatory Action Research Network, Cornell University.

The United States Agency for International Development (1996). *CDIE Performance Monitoring and Evaluation Tips: Using Rapid Appraisal Methods (Tips 1996 #5)*. Retrieved from: http://www.dec.org/usaid_eval/#004

---

[1] *Other TIPS for Rapid Appraisal Methods that may be of interest at the United States Agency for International Development website are: TIPS #4, Using Direct Observation Techniques; TIPS #2, Conducting Key Informant Interviews; TIPS #10, Conducting Focus Group Interviews; TIPS #1, Conducting a Participatory Evaluation. Available on line at: http://www.dec.org/usaid_eval/#004*

CONTRIBUTING AUTHORS

Chair

Robin E. Soler, Ph.D.

Senior Scientist, ORC Macro, Atlanta, GA 30029; 404-321-3211, Fax: 404-321-3688; E-mail: rsoler@macroint.com

Discussant

Lisa Lopez Levers, Ph.D.

Assistant Professor, Duquesne University, Canevin Hall 410-A, 600 Forbes, Pittsburgh, PA 15282; 412-396-1871, Fax: 412-396-5585; E-mail: levers@duq.edu

Authors

Gabrielle S. Powell, M.A.

Gabi Powell Consulting & Design, P. O. Box 955, Lander, WY 82520; 307-332-3864; Email: gabipwl@trib.com

Winston M. Turner, Ph.D.

Evaluator and Adjunct Professor, School of Social Work, Social Work Building, University of Maine, Orono, ME 04469-5770; 207-581-2408, Fax: 207-581-2396; E-mail: Win.Turner@umit.maine.edu

Leslie Young, Ph.D.

Director of Evaluation, Great Lakes Behavioral Health, 1500 W. Washington, Marquette, MI 49855; 906-228-0947, Fax: 906-228-3899; E-mail: lsyglbh@aol.com

A Study of the Impact of Financing Mechanisms on Access to Care For Children with Serious Emotional Problems

Roger A. Boothroyd
Mary I. Armstrong

Introduction

In the United States today it is estimated that 20% of youth have diagnosable emotional or mental disorders and approximately 9% to 13% of children ages 9 to 17 are estimated to have serious emotional disturbances (SED) that substantially interfere with their ability to function well at home, in school, and in the community. The prevalence of children and adolescents with serious emotional disturbance and extreme functional impairment is placed between 5% and 9% (Center for Mental Health Services, 1996). These prevalence estimates are higher than those published earlier.

Despite the increases in the prevalence of children with varying degrees of emotional disability, national estimates of mental health utilization and expenditures for children for 1998 are at a much lower level. These estimates indicate that between 5% and 7% of all children in the United States use a mental health service each year. Substantial variation in mental health service utilization exists by the type of child's health insurance coverage, ranging from 8.4% for Medicaid enrollees to 4% for the uninsured (Ringel & Sturm, 2001).

The early 1990s witnessed a rapid expansion of managed care from the private health care field to the public sector. For example, while only 9.5% of Medicaid enrollees were enrolled in managed care arrangements in 1991, that figure had risen to 40.1% by 1996 according to data from the Health Care Financing Administration (1988). State involvement in Medicaid behavioral health managed care reforms increased from 86% of all states in 1995 to 98% of states in 1997-98 (Pires, Armstrong, & Stroul, 1999). With the sharp increase in enrollment in managed care plans that has occurred in the past decade, children with serious emotional problems and their families increasingly are being served through managed care arrangements directed at containing costs and controlling service utilization. There is growing speculation regarding the impact of managed care arrangements on these children and their families.

In the Tampa Bay area, Florida is experimenting with two managed care approaches to the provision of mental health care. One approach is a mental health carve out, in which the financing and administration of mental health services is separate from the financing and administration of health care services. The second organizational arrangement is a HMO model, in which the administration and financing of physical health and mental health care are together. Outside of the Tampa Bay area in Florida, most mental health services are provided by self-referral to the public mental health system and are reimbursed on a fee-for-service basis. This study addresses the question of whether these various financing arrangements, as well as other predictive variables, have an impact on the use of mental health services by children with serious emotional problems.

Methodology

Respondents

This study is based on mail survey responses of 202 caregivers whose children were receiving SSI because of an emotional or behavioral problem and were enrolled in a Medicaid health care plan in which their child's mental health care was either managed or unmanaged. The characteristics of these 202 children are summarized in Table 1.

Table 1
Characteristics of the Children
***n* = 202**

Characteristics	
Age:	
Mean/(SD)	13.3/(3.3 years)
Range	6-20 years old
Gender:	
Male	75%
Female	25%
Race/Ethnicity:	
White/Caucasian	43%
Black/African American	39%
Hispanic	18%
Managed mental health care	
Yes	74%
No	26%
Used mental health services in past six months	
Yes	56%
No	44%

Mail Questionnaire

A questionnaire was developed to assess various aspects of these children's lives and incorporated a number of previously developed and tested standardized measures. The questionnaire asked about the child's Medicaid eligibility status for Medicaid (i.e., SSI versus TANF), their health (Child Health Questionnaire; Landgraf, Abetz, & Ware, 1999) and mental health status (Pediatric Symptom Checklist; Jellinek, Murphy, & Burns, 1986). Additionally, medication issues, service needs and use, and satisfaction with mental health services (Mental Health Statistics Improvement Program Task Force on a Consumer-Oriented Report Card, 1996) were also included.

Questionnaires were printed as an 8.5" by 7" booklet in both English and Spanish. Personalized cover letters explaining the purpose of the study and printed on customized letterhead were mailed with each questionnaire. The letterhead and the questionnaire each contained the toll-free telephone number that was installed for the project so that individuals could call to either complete the survey by telephone or to get questions about the survey answered. Telephone coverage was available weekdays from 8:30 a.m. until 8:30 p.m. so that individuals not able to call during the day could call during the evening.

Procedure

During the first eight months of 1998, questionnaires were mailed to a stratified random sample of 4,781 caregivers of children (ages 5-21) enrolled in three different Medicaid health care plans. A highly systematic and structured approach to survey design and follow-up similar to those recommended by Dillman (1978) and Salant and Dillman (1992) was used that included five separate mailings.

First, a prenotification postcard was sent informing caregivers that a study was being conducted to examine children's health care services and that they would receive a questionnaire in the mail in about a week. One week later a second mailing was mailed that included a personalized cover letter and questionnaire, in both English and Spanish, an explanation of the purpose of the study, a statement that respondents would be paid $7.00 for returning a completed questionnaire, and information about the days and hours of operation of the toll-free telephone number. A preaddressed stamped return envelope was also included in the mailing. One week later, a postcard reminder was mailed to each person who had not yet responded. This reminder emphasized the importance of the study and again included information on the toll-free telephone number they could call. Two weeks after the postcard reminder was mailed, a fourth mailing containing a cover letter, questionnaire, and return envelope was mailed to each non-respondent. Finally, four weeks later, a fifth mailing was sent via certified mail to individuals who still had not responded. As with the first and fourth mailing, enrollees received a personalized cover letter, questionnaire, and a preaddressed, stamped return envelope.

As recommended by Dillman (1978), first class postage was used on both the outgoing and return envelopes of each mailing and address correction was requested from the post office so that mailing lists could be updated. These mailing procedures were based on the findings of a pilot study conducted to assess the validity of using mail survey procedures with a WAGES and SSI population (See Boothroyd & Shern, 1998a) and successfully implemented with a large-scale mailing to adult SSI recipients (See Boothroyd & Shern, 1998b).

Analysis

A forward stepwise logistic regression was used to identify what factors were predictive of children's mental health service use. Three classes of predictor variables were examined. These included four demographic variables (i.e., age, gender, race, and ethnicity), four "clinically-oriented" variables (i.e., experimentation with drugs/alcohol, mental health status, health status, functioning), and three "services-related" variables (i.e., enrolled in special education, use of medications, enrolled in managed care).

Results

Response Rate

Responses were received from 1,797 caregivers, a response rate of 38%. When adjusted for incorrect addresses the response rate was 41%. Of these respondents, 202 children were receiving SSI because of an emotional or behavioral problem and enrolled in one of the three Medicaid health care plans under study. This represents approximately 33% of the children who were receiving SSI and forms the sample used for this study.

Predictors of Mental Health Services

Results of a forward stepwise logistic regression revealed that only four of the predictors were significantly associated with children's use of mental health services. These predictors included: (1) being enrolled in special education in school, (2) using medications, (3) overall functioning, and (4) being enrolled in managed care (See Table 2). Examination of the odds ratios indicated that children enrolled in special education were 4.72 times more likely to have used mental health services than children who were not in special education. Children who were using medications were 3.56 times more likely to have used mental health services compared to children who were not using medications. Children who required greater functional assistance were 2.31 times more likely to have used mental health service compared to children who required little functional assistance. Finally, children enrolled in a Medicaid managed care plan were less than half as likely (.45) to have used mental health services compared to children who were enrolled in a Medicaid fee-for-service plan.

The four variable model correctly classified 89 of the 114 children (78.1%) who had used mental health services and 56 of the 88 children (63.6%) who had not used mental health services. Overall, the model correctly classified 71.8% of the children in terms of their mental health service use. Nagelkerke R^2 for the four variable model was .27, indicating the model only accounted for a marginal amount of the total variance in children's mental health service use.

Table 2
Logistic Regression Results

Variable	*Step*	*Beta*	*$p <$*	*R^2*	*Odds Ratio*
In special education	1	1.55	.001	.138	4.72
Using medications	2	1.27	.001	.212	3.56
Needing functional assistance	3	.84	.01	.249	2.31
Enrolled in Medicaid managed care	4	-.79	.05	.272	.45

Discussion

The purpose of this study was to determine what factors, including the financing arrangement (i.e. enrollment in a managed care plan versus a fee-for-service plan) are predictive of the utilization of mental health services by children with serious emotional disturbance. The results of this study indicate that 4 of the 11 factors examined, including enrollment in Medicaid managed care, were significantly related to children's mental health utilization. None of the demographic variables were associated with the likelihood of children with SED receiving treatment. Somewhat surprisingly, most of the clinical factors (experimentation with drugs/alcohol, mental health status, health status) were also not predictive of mental health service utilization. The childrens' level of functioning was the only clinical predictor associated with service use, as children having greater needs for functional assistance were more likely to be receiving services compared to those children with fewer functional needs. Not surprisingly, "service-related" variables such as being in special education, using medications, and being in managed care were each predictive of childrens' receipt of services.

Why is it that a child's clinical condition is not associated with the likelihood of service utilization? What barriers prevent families from getting their children into treatment? What steps are needed to ensure that children in need of services will have access to them?

Unfortunately, the findings from this study continue to validate findings from a number of previous studies that are summarized in the Surgeon General's Report (U.S. Department of Health and Human Services, 1999). Estimates from 1986 suggest that nearly 70% of children with mental health needs do not receive treatment. More recent studies continue to document that a high proportion of children with mental health needs receive no mental health services (Burns, et al., 1995; Leaf et al., 1996). Additionally, previous studies have also documented that children's level of functioning is a good predictor regarding the likelihood that they are receiving mental health services (Leaf, et al., 1996). In this study we also found that being enrolled in managed care lessens the possibility that a child with mental health needs will receive services.

The findings from this and previous research seem to suggest that until children's level of impairment reaches some critical level, many families are reluctant to seek treatment for their children. Among the reasons cited in the Surgeon General's Report for this underutilization of services are perceptions that services are not relevant, stigma, dissatisfaction, and costs (See Pavuluri, Luk, & McGee, 1996; Kazdin, Holland, & Crowley 1997).

What can be done to lower these high rates of service underutilization? One recommendation based on these findings is that the Child Health Watch periodic screenings, required for all children enrolled in Medicaid, include a mental health section that asks questions about overall functioning of the child and enrollment in special education rather than questions regarding clinical condition or mental health status. A recent study by the Bazelon Center for Mental Health Law (1999) indicates that specialized behavioral health screening improves identification of children with behavioral health disorders. Child Health Watch screenings are especially important for pre-school age children because pediatricians and health care professionals are the individuals who have contact with children in this age group. Second, schools need to be engaged as partners in the identification and referral of children with emotional and behavioral problems. Once a child is enrolled in school, teachers are the first line of defense in the identification of children with mental disabilities. A final recommendation is in the area of engagement of families by the mental health system. We need to understand better why some families do not seek help from mental health professionals or agencies, and what factors would encourage parents to reach out for assistance. Further research is needed on which recommendations as well as other strategies will result in higher utilization rates among children with identifiable emotional and behavioral problems.

References

Bazelon Center for Mental Health Law. (September 1999). *Where to turn: Confusion in Medicaid policies on screening children for mental health needs.* Washington, DC: Author.

Boothroyd, R. A., & Shern, D. L. (1998a, January). *Accessing the feasibility of using mail survey methodology with Medicaid enrollees: A summary of a pilot study for the member survey.* Tampa, FL: Louis de la Parte Florida Mental Health Institute, University of South Florida.

Boothroyd, R. A., & Shern, D. L. (1998b, January). *Evaluation of Florida's Prepaid Mental Health Plan: Preliminary findings of the member survey component.* Tampa, FL: Louis de la Parte Florida Mental Health Institute, University of South Florida.

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

Center for Mental Health Services. (1996). *Mental Health-United States, 1996.* R. W. Manderschied & M. A. Sonnenschein, (Eds). Pub No (SMA) 96-3098. Washington, DC: Superintendent of Documents, U.S. Government Printing Office.

Dillman, D. A. (1978). *Mail and telephone surveys: The total design method.* New York: John Wiley & Sons.

Health Care Financing Administration (1998, June). *Medicaid managed care enrollment report: Summary as of June 30, 1998.* Baltimore: Author.

Landgraf, J. M., Abetz, L., & Ware, J. E. (1999). *CHQ users manual.* Second Printing. Boston, MA: HealthAct.

Leaf, P. J., Alegria, M., Cohen, P., Goodman, S. H., Horwitz, S. M., Hoven, C. W., Narrow, W. E., Vaden-Kiernan, M., & Reiger, D. A. (1996). Mental health service use in the community and schools: Results from the four-community MECA Study. Methods for the Epidemiology of Child and Adolescent Mental Disorders Study. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*, 889-897.

Jellinek, M. S., Murphy, J. M., & Burns, B. J. (1986). Brief psychosocial screening in outpatient pediatric practice. *The Journal of Pediatrics, 109*: 371-378.

Kazdin, A. E., Holland, L., & Crowley, M. (1997). Family experience of barriers to treatment and premature termination from child therapy. *Journal of Consulting and Clinical Psychology, 65*, 453-463.

Mental Health Statistics Improvement Program Task Force on a Consumer-Oriented Report Card (1996). *The MHSIP consumer-oriented mental health report card.* Rockville, MD: Center for Mental Health Services.

Pavuluri, M. N., Luk, S. L., & McGee, R. (1996). Help seeking behavior problems by parents of preschool children: A community study. *Journal of the American Academy of Child and Adolescent Psychiatry, 35*, 215-222.

Pires, S. A., Armstrong, M. I., & Stroul, B. A. (1999). *Health care reform tracking project: Tracking state health care reforms as they affect children and adolescents with behavioral health disorders and their families—1997-98 State Survey*. Tampa, FL: Research and Training Center for Children's Mental Health, Department of Child and Family Studies, Division of State and Local Support, Louis de la Parte Florida Mental Health Institute, University of South Florida.

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

Salant, P. A., & Dillman, D. A. (1992). *How to conduct your own survey*. New York: John Wiley & Sons.

U.S. Department of Health and Human Services. (1999). *Mental health: A report of the Surgeon General*. Rockville, MD: U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration, Center for Mental Health Services, National Institutes of Health, National Institute of Mental Health.

CONTRIBUTING AUTHORS

Roger A. Boothroyd, Ph.D.
Department of Mental Health Law and Policy, Louis de la Parte Florida Mental Health Institute, University of South Florida, 13301 Bruce B. Downs, Tampa, FL 33612; 813-974-1915, Fax: 813-974-9327; E-mail: boothroyd@mirage.fmhi.usf.edu

Mary I. Armstrong, M.S.W., M.B.A.
Department of Child and Family Studies, Louis de la Parte Florida Mental Health Institute, University of South Florida, 13301 Bruce B. Downs, Tampa, FL 33612; 813-974-4601, Fax: 813-974-7563; E-mail: armstron@fmhi.usf.edu

Studying the Treatment-as-Usual Setting

David Kolko

Introduction

There is an increasing interest in the nature and outcome of treatment as usual (TAU); however, there is little information regarding the service experiences of children and adolescents in various routine community settings and systems. Such real-world information is needed to understand changes in the treatments and service systems they receive, and developments in clinical practice and technique based on evidence from recent empirical outcome studies. This presentation will discuss an initial program evaluation framework for studying TAU, construct development in TAU studies, the measurement of these constructs, and acquiring input from collaborators and clients. These will be illustrated with examples of TAU studies conducted in within the community mental health care, primary care, and child welfare systems.

Routine Care in the Community: "Treatment-As-Usual" (TAU) Services

As a brief introduction, it is important to mention that most of the outcome studies reported in prior years with children or adolescents have included TAU as a comparison to specialized treatment approaches where the focus has been on determining the relative superiority of an alternative or specialty treatment on selected clinical outcomes. And, for the most part, the comparison has revealed the less than stellar performance of TAU cases relative to other conditions. Many programs provided in the community have been interpreted as evidence for the limited effectiveness of clinical interventions, bolstered by evaluation reports articulating many of the constraints to treating children with impairments in functioning and their families, and barriers to achieving satisfactory results. Indeed, several differences between specialty treatments and routine clinical practice have been identified (e.g., Weisz) which may be related to the achievement of good therapeutic outcome.

More recently, however, there has been interest in the nature and outcome of TAU in its own right, given such findings and the recognition that improving TAU, rather than the specialty treatment, is an important treatment and research priority. Such real-world information is needed to understand changes in the treatments and service systems they receive, and developments in clinical practice and technique based on evidence from recent empirical outcome studies. A few of the areas in which scientific progress is needed are shown below.

Some General Questions to Examine in Evaluating TAU

1. How can we characterize the clinical practices used in the TAU setting, i.e., can we describe the nature and content of treatment—e.g., are there diagnostic-specific treatments (vs. generic services) which might influence improvement in treating any disorder/problem?
2. How can we reflect other treatment parameters, including quality—types of participants, duration and intensity of services, client engagement and participation, settings used, availability of supervision and consultation, as well as client perceptions of treatment appropriateness, quality, and satisfaction?
3. How can we determine outcomes and cost associated with the provision of TAU (vs. specialty treatment services) on both standardized and individualized measures? Youth who respond to specialty treatment may be more likely to exhibit continued gains in the long run. Cost-effectiveness, then, may be realized in documenting greater improvements in child, parent, and family functioning, reduced treatment "no-shows", and reduced system involvement or penetration (e.g., special education, juvenile justice, child protective services).

This summary represents one of a number of presentations featured in a symposium entitled: Implementation and Dissemination in Children's Mental Health: Models, Methods and Measurement.

Methods

Treatment Outcome Studies with TAU Comparisons: Examples

The author has recently completed two clinical trials directed towards different child/adolescent problems, namely, child firesetting and child physical abuse. A third study examined a cohort of TAU cases in the Child Protective Services system. Two new studies are examining the treatment of conduct problem children in which comparison are being made to TAU conditions in the mental health and primary care settings, and a third new study is examining TAU practices in child welfare. These studies will be used to provide illustrations in terms of both the decision-making process used to identify worthy constructs and domains (what to measure) and eventual assessment instruments actually used (how they were measured).

Construct Development: What to Measure

Initial Framework for Program Evaluation

We have found it helpful to incorporate the five general domains recommended for a comprehensive assessment of the outcomes of clinical treatment proposed by Hoagwood et al. (1996; see Jensen et al., 1996) into several of our outcome studies. This provides a conceptual framework for the selection of measures. In addition, the clinical-research evaluation was informed by the specific literature in each content area, such that we included dimensions of functioning and specific instruments/constructs identified in prior outcome research to ensure relevance and clinical validity.

Knowing what the field says about important domains relating to clinical outcomes is also critical and includes empirical work conducted on the epidemiology of the problem (description, demographics, covariates), treatment content and quality (manuals, administration parameters), treatment response, course and predictors of outcome (longitudinal studies), and evidence for moderators and mediators.

Input from Collaborators and Clients

Having an ongoing relationship with collaborators in the TAU setting that is of mutual benefit is an essential prerequisite to getting a clear understanding of what should measured in the TAU setting and to being able to measure them efficiently and accurately. One must meet with program leadership, providers, stakeholders, and clients to get feedback on proposed assessment and treatment evaluation protocols. Information is needed regarding the agency's or program's mission, goals/outcomes, methods, resources, and service obstacles/limitations.

Regarding assessment measures, we find it important to consider the following parameters in identifying and developing assessment instruments: Content, format, timing, source, sophistication, and burden.

Assessment Examples: How Constructs were Measured

Some illustrations follow regarding the domains we have routinely measured across studies and the measures used to do so (e.g., symptoms/problems, impairment, context, consumer satisfaction). Some of these measures are being used in our current study designed to evaluate two specialty treatments and a TAU clinic for child behavior problems.

1. ***Primary Problems (Symptoms).*** We have devised brief outcome measures that have been administered at all standard assessment intervals (pre, post, follow-up) and at the beginning of each treatment session. The key outcomes to be changed by intervention have been evaluated in our firesetter study (e.g., number of firesetting and matchplay incidents), abuse (parental anger, use of force, serious family problems), and conduct problem studies (e.g., any aggression, any rule-breaking, any oppositional/defiant behavior). A second set of measures has reflected the family's idiosyncratic problems on an individualized goal achievement rating form.

2. ***Treatment Process.*** Other domains may include our measures of treatment credibility, integrity, adherence, alliance, and acceptance and satisfaction.
3. ***Treatment Content/Use.*** We also use a measure of study service delivery based on clinician provider logs.

Conclusions

There is much to be done in terms of assessing and then understanding the treatment as usual setting. Specific developments are needed to facilitate the integration of research instruments and feedback systems in routine clinical practice, including methods to assess primary problems, contextual issues, treatment goal resolution, and continued service needs. This summary provides some suggestions for addressing these issues and encourages continued collaboration between researchers and practitioners.

References

Hoagwood, K., Jensen, P. S., Petti, T., & Burns, B. J. (1996). Outcomes of mental health care for children and adolescents: I. A comprehensive conceptual model. *Journal of the American Academy of Child & Adolescent Psychiatry 35*(8), 1055-1063.

Jensen, P. S., Hoagwood, K., & Petti, T. (1996). Outcomes of mental health care for children and adolescents: II. Literature review and application of a comprehensive model. *Journal of the American Academy of Child & Adolescent Psychiatry 35*(8), 1064-1077.

CONTRIBUTING AUTHOR

David J. Kolko, Ph.D.
University of Pittsburgh School of Medicine, Western Psychiatric Institute and Clinic,
3811 O'Hara St., Pittsburgh, PA 15213; 412-624-2096;
E-mail: kolkodj@msx.upmc.edu