

Chapter Eleven

Strategies for Continuous Quality Improvement and Financing

Symposium

From Discovery Research to Implementation to Application: Closing the Loop on Service Quality to Realize Data-Based Decision-Making

Symposium Introduction

Melanie Barwick

The papers included in this symposium sought to extend thinking from discovery research, to implementation science, to data-based decision-making as a necessary component in the cycle of improving systems of care in children's mental health. This journey was told through four presentations: (a) the vision for data-based decision-making in the Ontario system of care (Barwick); (b) a description of the challenges inherent in developing system-wide accountability in Maryland (Patel); (c) the success achieved in organizational data-based decision-making at the Barber Institute (Curcio); and (d) the solution-focused process-based Continuous Quality Improvement (CQI) tool that has made these successes possible and that holds promise for data-based decision-making in both individual organizations and in systems of care (Rumberger).

Chair

Melanie Barwick

Contributing Authors

Melanie Barwick et al.

Vaishali Patel

Chris Curcio et al.

David Rumberger

Continuous Quality Improvement and Data-Based Decision-Making in Children's Mental Health: A System of Care Perspective

Melanie Barwick, & Bruce Ferguson

Introduction

Over the last five years, a number of events have converged to set the stage for addressing service quality improvement in Ontario's children's mental health (CMH) system. Training and implementation of screening and outcome measurement tools mandated in 2000 across 107 organizations has laid the groundwork for describing the mental health problems of children and youth who seek service, evidence-based triaging of wait listed clients, and determining treatment response- new capacity for our CMH system (Barwick, Boydell, Cunningham, & Ferguson, 2004). Progressing in tandem have been recent efforts on the part of the National Child and Youth Health Coalition and the Health Council of Canada to develop national health and mental health indicators (National Child and Youth Health Coalition, 2004; Health Council of Canada, 2005). Of equal significance is the provincial political agenda that strives for increased accountability and improved quality in mental health (Government of Ontario, 2003). Taken together, these events point to the necessity for CQI to become an integral part of mental health service provision in Ontario.

This project represents an opportunity to take another important step toward evidence-based care by evaluating the feasibility and benefits of implementing a systematized CQI process tool in two children's mental health organizations. Piloting of the CQI tool is a significant step toward evaluating the feasibility and potential benefits that could be realized in a larger, system-wide implementation.

Project Goals And Objectives

The design is a pre-post comparison, where changes within two organizations of different size are evaluated as a result of implementation of a CQI process based software tool called TOTAL:Quality. The project seeks to achieve the following four goals:

1. To pilot implementation of the TOTAL:Quality tool in two service provider organizations of different size;
2. To evaluate the extent to which decision-making for service delivery is *empirically* supported by the TOTAL:Quality CQI process in these organizations;
3. To examine whether TOTAL:Quality facilitates compliance with Children's Mental Health Ontario (CMHO) accreditation standards in these organizations; and
4. To survey the CQI practices of children's mental health organizations across Ontario.

Research Plan/Methodology

Project Development

The project arose through ongoing dialogue between Dr. Barwick and members of Esteam, and developed with considerable community involvement. Esteam was founded as a venture between Pressley Ridge and Innervate, two Pittsburgh-based organizations. Pressley Ridge is a non-profit organization founded in 1832, and one of the oldest and most highly regarded innovators of best practices in children's mental health in the United States. Innervate, a technology company, offers consulting and software services to the health and human services fields. Principal members of Esteam were invited to present their TOTAL:Quality approach at a children's mental health conference held for over 120 participants¹ in Toronto in December 2004, where they generated significant interest from children's mental health practitioners and organizations. This interest led to a web cast demonstration of the TOTAL:Quality tool, broadcast in early February 2005 to an audience of 11 service provider organizations and over 20 individuals; two organizations involved their entire management teams.

Project Participants/Collaborators

The aforementioned events led to five children's mental health (CMH) organizations expressing interest in collaborating as demonstration sites; reflecting unprecedented and noteworthy outpouring of interest from the field. Three organizations completed a readiness questionnaire detailing the human resources they could bring to the project, confirming their IT compatibility with the TOTAL:Quality software, and declaring their readiness and interest. The Hospital for Sick Kids team's experience in system-wide implementation of evidence-based practices, combined with the Esteam consultants' implementation experience, determined it was practicable to focus on two service providers in this pilot demonstration; level of funding available was also a consideration. The two organizations were selected according to readiness, capacity to participate, and size. Organizational resources and capacity reflected by annual dollars offers an interesting point of comparison regarding the feasibility of a larger system implementation² The organizations with the smallest and largest annual budgets were invited to collaborate.

TOTAL:Quality

The purpose of TOTAL:Quality is to create or otherwise support organizational assessment and improvement of quality. TOTAL:Quality software is an electronic "process" tool designed to support continual self-assessment. As such, it provides a formal and systematized process to monitor and evaluate the quality, utilization, safety, appropriateness, efficiency, and effectiveness of mental health care and service delivered to children and youth. The software and implementation consultation by Esteam focuses the organization on opportunities for improving operational processes as well as health outcomes and client satisfaction. In this way, the TOTAL:Quality tool seeks to promote and foster accountability of service provider organizations and practitioners for the quality and safety of care and services provided to children and youth. Specifically, the TOTAL:Quality application provides a mechanism for service providers to: (a) Continuously monitor performance according to, or in comparison with objective, measurable performance standards—National, Provincial, and/or Regional; (b) Analyze information and data to identify trends; (c) Prioritize opportunities for improvement; (d) Design interventions for improvement; (e) Implement those interventions; (f) Re-measure the processes; and (g) Evaluate the effectiveness of the interventions and identify additional opportunities for improvement.

¹ Conference participants included children's mental health practitioners, leaders of service provider organizations and in the children's mental health field, policy makers from the Ministry of Children and Youth Services, Research and Outcome Measurement Branch and Juvenile Justice Division, and children's mental health experts affiliated with university and academic health science centres.

² Data from 54 CMH organizations recently surveyed reports that 7.4% have a budget of less than \$1million, 50% are between \$1-5 million, 35.2% are between \$6-10million, and 7.4% are at \$11million or higher (Barwick et al., 2005).

TOTAL:Quality allows service providers to track and demonstrate, in an empirical way, the quality of their services against criteria-based benchmarks. As system-wide indicators and benchmarks have not been defined, these are typically set arbitrarily by program and senior managers. Once established in-house, however, program managers are able to compare their performance-based data against these criteria-based benchmarks. More importantly, it takes providers beyond the data collection and report generating activities of quality indicators or accreditation standards and pushes them to address the question, “what do our indicator data show us and what are we doing as a result?” Consider that data collection and reporting are not in and of themselves “functional”—nothing about merely collecting quality data compels providers to *act* on that data. TOTAL:Quality works to close the “CQI loop” that is often lacking in the process of improvement and self-evaluation, and in doing so quality indicators become *dynamic*. The tool provides a means to support and manage the quality improvement process and actively support service decisions as intended and expected by oversight and accrediting bodies (i.e., Ministry of Children and Youth Services, Children’s Mental Health Ontario, or COA).

Procedures for Implementation

Procedures related to the planned implementation of the CQI demonstration will be described, including pre-situational analysis, overview of organization’s current CQI practices, launch of implementation and training, work group development, and follow-up.

Procedures for Evaluation

Indicators and outcomes for evaluating the application and impact of TOTAL:Quality in two organizations are described in the Logic Model (see Table 1). The study utilizes a mixed methods approach. Briefly, a baseline description of pre-implementation CQI practices and related organizational structure will be measured through notes/documentation stemming from the situational analysis, the CQI Climate Survey, interviews with program and senior managers and CQI leads, and collection of any existing CQI documentation (e.g., reports, presentations). System set up and training will be captured through the organizations’ installation of the software tool and completion of the training phases, observational field notes from meetings and trainings, and interviews with the CQI leads and consultants. Following a six-month period during which the organizations will use the tool, a post-implementation assessment will be conducted with the CQI Climate Survey, interviews with CQI leads, senior, and program managers, and an analysis of tool usage based on the organizations CQI report generated by the software tool. From the CQI report, frequencies are coded for content of observations, remedies, and close-outs/outcomes.

Procedures for CQI Scan

The goal of surveying the children’s mental health field regarding current CQI practices is essentially to inform the feasibility of a larger system-wide deployment. The CQI Climate Survey will be distributed electronically to the executive directors of 107 children’s mental health organizations across Ontario using SurveyMonkey web methodology. The research team has used this methodology to survey executive directors in the past (Barwick, Boydell, Stasiulis, Ferguson, Blase & Fixsen, 2005; Barwick, Boydell, & Omrin, 2002) and has experienced a high rate of return (72.5%). We expect a similar rate of return and will use repeated telephone and email follow-up to maximize the response rate.

Current Status

The project is currently under development, however will have implications for large-scale implementation of CQI as a necessary component of quality evidence-based and data-driven mental health service. While broad timelines are indicated in the Logic Model (Table 1), the practice change aspect of this project, involving CQI assessment, training, deployment of the CQI tool, and requisite behavior change among managers makes it difficult to narrow in on a specific timeline. The knowledge transfer and dissemination activities will occur throughout the life of the project and conceivably well beyond the project funding end date.

Table 1
Logic Model

	<i>Activities/Outputs</i>	<i>Short Term Outcomes</i>	<i>Measurement Indicators</i>
Year 1¹ 2005-2006			
Winter 2005	1. Situational Analysis: Pre-assessment of service provider CQI activities: management structure, indicators, & process for informing decision making & service delivery.	1. Description of baseline pre-implementation assessment of CQI activities	<ul style="list-style-type: none"> • CQI Climate Survey • Interviews with senior management team • Any existing, baseline CQI documentation, reports for the organizations. • Notes taken through situational analysis meetings
Winter 2005	1. Scan of CQI practices in 107 children's mental health service providers across Ontario. We anticipate 3 months	1. Description of CQI practices for 107 CMH organizations.	<ul style="list-style-type: none"> • CQI Climate Survey
Spring 2006	1. Implementation of TOTAL: Quality in 2 organizations: a) System set up b) Training	<ol style="list-style-type: none"> 1. System goes online 2. First workgroup trained Dec /05 3. Consecutive workgroups trained Jan/06 to mid Feb/06 	<ul style="list-style-type: none"> • IT installation of software; • completion of training phase & # trained • observations & interviews with CQI leads & consultants.
Spring-Fall 2006	1. Live deployment (use) of TOTAL: Quality in 2 organizations. Organizations will use the tool from early Mar /06 through Sep/06 (6 months).		
Year 2 2006-2007			
Summer – Fall 2006	1. Post-implementation assessment of CQI activities	<ol style="list-style-type: none"> 1. Evidence of decision-making for service delivery that is based on CQI indicators. 2. Satisfaction with the TOTAL: Quality tool and process 3. Ease of Accreditation process (CMHO standards) 	<ul style="list-style-type: none"> • CQI Climate Survey (post) • Interviews with CQI leads, senior & program managers • Analysis of tool usage: historical tracking of CQI thread (frequencies of observations, remedies, close outs) captured on the tool.
Winter 2006 – Spring 2007 Post funding	<p>Knowledge transfer and dissemination:</p> <ol style="list-style-type: none"> 1. ongoing communication of project status, successes, and challenges to advisory group throughout the life of the project (i.e., action research) 2. intermittent reports of project progress to the children's mental health field in brief summaries distributed via CMHO and Sick Kids contacts and electronic mechanisms (web, email) 3. final report to funder 4. final report to service provider community, distributed electronically to all CMH organizations in Ontario 5. presentations to service providers in Ontario 6. presentations to scientific community 7. peer-reviewed publication 8. involvement in workgroup for next steps in provincial deployment 	<ol style="list-style-type: none"> 1. Expressed interest from other service providers to participate in the next demonstration pilot; 2. Expressed interest from MCYS to explore and possibly fund phase 2 deployment 3. Invitations from service providers to share findings 4. Invitations to academic meetings / conferences 5. Successful peer reviewed publications 6. Distribution (# of points of web access, web traffic to download, # of requests) 	<ul style="list-style-type: none"> • Observation • Documentation • Future funding

¹Timelines—The practice change aspect of this project, involving CQI assessment, training, deployment of the CQI tool, and requisite behavior change among managers makes it difficult to narrow in on a specific timeline. Broad timelines are indicated in the Logic Model (Table 1). The knowledge transfer and dissemination activities will occur throughout the life of the project and conceivably well beyond the project funding end date.

References

- Barwick, M., Boydell, K. M., Stasiulis, E., Ferguson, H. B., Blase, K., & Fixsen, D. (2005). *Knowledge transfer and evidence-based practice in children's mental health*. Toronto, ON: Children's Mental Health Ontario.
- Barwick, M., Boydell, K. M., Cunningham, C. E., & Ferguson, H. B. (2004). Overview of Ontario's screening and outcome measurement initiative in children's mental health. *The Canadian Child and Adolescent Psychiatry Review*, 13(4), 105-110.
- Barwick, M., Boydell, K. M., & Omlin, C. (2002). *A knowledge transfer infrastructure for children's mental health in Ontario: Building capacity for research and practice*. Toronto, ON: The Hospital for Sick Children.
- Government of Ontario. (2003). *Annual Report of the Office of the Provincial Auditor of Ontario – Children's Mental Health Services*, pp. 52-68. Ottawa: Government of Ontario.
- Health Council of Canada. (2005). *Health care renewal in Canada: Accelerating change*. Ottawa: Health Council of Canada.
- National Child and Youth Health Coalition. (2004). *Establishing Canadian infant, child, and youth health indicators – Directions document Part II*. Ontario: National Child and Youth Health Coalition.

The Struggle to Develop Accountability: Provider-Policymaker Perspectives on Implementing a Standardized Outcomes System in Maryland

Vaishali Patel

Introduction

The collection of outcomes data within mental health settings is becoming more common. A practitioner survey conducted of American Psychological Association found that 40% of providers in medical settings reported some form of outcomes measurement as part of their primary practice (Phelps, Eisman, & Kohout, 1998). In response to increasing pressure to provide accountability and address issues regarding quality of care, various initiatives across the United States and Canada have developed Outcome Management Systems (OMS) for child and adolescent mental health settings, including Ontario (Barwick, Boydell, Cunningham & Ferguson, 2004; Boydell, Barwick, Ferguson & Haines, 2005); Pressley Ridge in Pennsylvania (Beck, Meadowcroft, Mason, & Kiely, 1998), Texas Children's Mental Health Plan (Rouse, Toprac & MacCabe, 1998), Virginia (Koch, Lewis, & McCall, 1998), and Michigan (Savas, Fleming and Bolig, 1998) amongst others. This trend reflects in part the influence of accreditation and other regulatory bodies requiring the collection of outcomes and other performance data as part of the accreditation process or for obtaining licensure (Joint Commission, 2002).

Although national interest exists to use outcomes information to provide accountability and improve the quality of child mental health services, little is known about how outcomes management systems are implemented and how this information can inform decision-making at various levels of the organization: clinical, program management and executive leadership (Hodges, Woodbridge, & Huang, 2001). The goals of this study are to identify the conditions under which the use of outcomes information is supported and hindered, and describe the experiences of various staff within child mental health organizations in using outcomes data. The views of policymakers regarding their vision for a statewide outcomes evaluation system and the potential challenges to implementing such a system are also explored in this study.

Methodology

A multiple case study of two Residential Treatment Centers (RTC) and two Treatment Foster Care (TFC) programs using same Internet-based OMS in Maryland was conducted. The system was developed by their professional organization, Maryland Association of Resources for Families and Youth (MARFY) through a stakeholder driven process (Streider, 1998). The OMS captured the following data: demographic, family history, behavioral/social issues, psychiatric diagnoses, treatment history, services, and functioning rating scale.

The selection of RTCs and TFCs was based upon our desire to contrast the use of outcomes information in these programs as they differ most in terms of the intensity of services they offer, costs, and potentially in the quality of care they provide amongst out-of-home care settings (U.S. DHHS, 1999).

Within each program, information was gathered from staff members representing different groups of users (clinician, program manager/clinical supervisor, quality improvement, executive director) using tailored semi-structured field guides. Treatment team meetings and quality improvement meetings were observed to describe the decision-making processes, including how and who discussed outcomes information and other types of data at these meetings.

The Maryland State Assembly passed legislation in 2004 that mandated that child-serving state agencies plan for and make recommendations regarding developing a statewide OMS for out-of-home care placements (RTC, group home, TFC). In response to that legislation, state agencies responsible for out-of-home placements formed a committee that met in 2005 and drafted a report. Semi-structured interviews were conducted with state agency representatives who participated on this committee and other key personnel from state agencies. In addition, semi-structured interviews were conducted with legislators and advocates involved with the passage of the bill. Specifically, data collection consisted of:

- 35 Semi-Structured Interviews within Provider Organizations (17 Clinical Staff, 18 Quality Improvement (QI) and other management staff, 4 Executive Directors)
- Observations of QI and Treatment team meetings
- 11 Semi-structured Interviews with key legislators, advocates, and members of the workgroup responsible for responding to legislation
- Document Review (Legislative Hearings, Legislation, Reports in response to legislation)

Interviews lasted approximately one hour and were audio-recorded and transcribed. IRB Approval was granted from Johns Hopkins Bloomberg School of Public Health Committee on Human Research.

The analysis of the data collected—text from the transcribed interviews, documents related to Legislation and field notes describing observations related to meetings—has been guided by grounded theory (Corbin & Strauss, 1998) and case study methods (Yin, 2003). The use of Atlas.ti software (Scientific Software Development, 1997) has facilitated both the management of the data as well as analysis. Data triangulation was done to check the consistency and convergence of the findings obtained from different sources by comparing interviews with observations of meetings. Member checking has also been done by presenting initial findings to participants to elicit feedback.

Results

Both providers and policymakers recognize the potential importance of outcomes data to providing accountability:

“The longer I’m in the business the more I realize how much we don’t know - how much we’re shooting in the dark... so we collect the data that begins to let us know in a systematic way what impact we’re having.”

—Provider

“The state is interested in taking a look at outcome measures with regard to kids... not only because they want to be able to be funding the things that work, but they also want to be making some policy priorities around children.”

—State Agency Staff

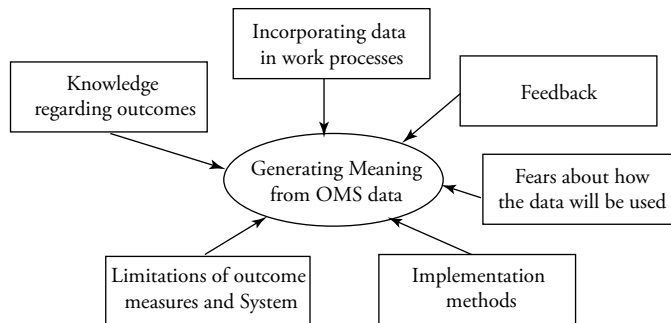
Specifically, providers recognize the need to use outcomes for demonstrating the value of the services they provide and for addressing the subjective nature of current decision-making processes within their organizations. Policymakers envisioned using outcomes to achieve accountability through a number of different mechanisms, including: developing a pay-for performance system that awarded organizations that achieved better outcomes; using outcomes to identify and promote best practices across organizations; informing decision-making at all levels; creating a system of feedback to providers that included some form of benchmarking; and identifying areas of greatest need in order to make decisions regarding allocation of resources and making service-related decisions.

Though both providers and policymakers envision the potential for outcomes to inform changes in the way care is delivered, in practice, providers’ didn’t make use of the outcomes data. Outcomes data rarely informed treatment and quality management decisions. The ability of OMS to inform decisions was stuck at a key step: staff struggled to generate meaning from the outcomes data that they have collected. This limited the utility of the data. As one Executive director of a TFC program put it:

“I don’t know... that they are seeing a correlation between the data we are collecting and the information that they are getting or the decisions that are being made organizationally.”

The specific barriers that providers identified that contributed to this struggle to generate meaning are outlined in Figure 1, and are based upon data provided by clinicians, managers and executive directors of both RTC and TFC programs.

Figure 1
Barriers to Implementation of Outcomes System Identified



Policymakers, and state agency representatives, in particular, also voiced a number of concerns and identified a number of potential barriers to implementing a state-wide outcomes system. These barriers included institutional barriers. As multiple agencies are responsible for overseeing out-of-home placements, there is divided accountability and lack of ownership over the entire process. The agency responsible for coordinating activities across the agencies often has very weak powers. Limited knowledge regarding outcomes, even amongst senior agency staff was identified as a problem as well. A strong resistance on part of child agencies regarding using and sharing outcomes data exists. This resistance is driven, in part by fear of being criticized by the state legislators and the public. The organizational culture of lack of transparency is reflective of these fears. In addition, state agency representatives also felt overwhelmed as they are understaffed to take on another major initiative. Issues relating to the implementation and potential uses of the system also exist. Concerns about the costs of implementing a statewide system as well as different visions on how to implement and fund the data collection exist. State agency staff voiced concerns about the ability to use outcomes for performance measurement without case-mix adjustment and considering the complexity of care provided within these settings of care. Another concern was that because of limited provider capacity, outcomes data might not be utilized in order to inform decisions regarding placement into care.

Conclusion

While there is recognition that outcomes have the potential to provide accountability at various levels of the service system, barriers exist both at micro-level (within provider organizations) and at the macro-level (across child-serving government agencies). The challenge will be to implement a transparent system that informs policy decisions and is useful to clinicians as well. Infrastructure support is critical in order to emphasize data analysis, feedback and integration of data into work processes, for both provider organizations and state agency staff. In addition, addressing both provider and state agency fears regarding sharing outcomes data will have to be addressed. Otherwise there is a danger that all the efforts will be placed upon data collection and not on actually utilizing and sharing the data. The potential end result: “Somebody made the analogy of the roach motel... everything goes in and nothing comes out...”

References

- Atlas.ti Software (Version 4.2). [Computer software]. Berlin, Germany: Author.
- Barwick, M., Boydell, K. M., Cunningham, C. E., & Ferguson, H. B. (2004). Overview of Ontario's screening and outcome measurement initiative in children's mental health. *The Canadian Child and Adolescent Psychiatry Review*, 13(4), 105-110.
- Beck, S. A., Meadowcroft, P., Mason, M., & Kiely, E. S. (1998). Multiagency outcome evaluation of children's services: a case study. *Journal of Behavioral Health Services Research*, 25(2), 163-176.
- Boydell K. M., Barwick M., Ferguson H. B., Haines R. (2005). A feasibility study to assess service providers' perspectives regarding the use of the child and adolescent functional assessment scale in Ontario. *Journal of Behavioral Health Services Research*. 32(1), 105-9
- Hodges, S., Woodbridge, M., & Huang, L. N. (2001). Creating useful information in data-rich environments. In M. Hernandez & S. Hodges (Eds.), *Developing outcome strategies in children's mental health. Systems of care for children's mental health*. Paul H. Brookes Publishing Co., Baltimore.
- Joint Commission, 2002. <http://www.jcaho.org/accredited+organizations/behavioral+health+care/index.htm>. Accessed 10/14/02.
- Koch, J. R., Lewis, A. & McCall, D. (1998). A multi-stakeholder driven model for developing an outcomes management system. *Journal of Behavioral Health Services Research*. 25(2), 151-162.
- Phelps, R., Eisman, E. J., & Kohout, J. (1998). Psychological Practice and Managed Care: Results of the CAPP Practitioner Survey. *Professional Psychology: Research and Practice*, 29(1), 31-6.
- Rouse, L. W., Toprac, M. G., & MacCabe, N. A., (1998). The development of a statewide continuous evaluation system for the Texas Children's Mental Health Plan: A total quality management approach. *Journal of Behavioral Health Services Research*. 25(2), 194-207.
- Savas, S., Fleming W. M., and Bolig, E. E. (1998). Program Specification: A Precursor to Program Monitoring and Quality Improvement. A Case Study from Boysville of Michigan. *Journal of Behavioral Health Services Research*. 25(2), 208-216.
- Strauss A, Corbin J. (1998). *Basics of qualitative research*. 2nd Ed. Thousand Oaks: Sage Publications.
- Streider, F. (1998). *Maryland Association of Resources for Families and Youth*. Paper presented at the 11th Annual Research Conference: *A System of Care for Children's Mental Health—Expanding the Research Base*, Tampa, FL.
- U.S. DHHS. (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 Institute of Mental Health.
- Yin, R. (2003) *Case study research: Design and methods*. 3rd Ed. Thousand Oaks: Sage Publications.

Quality Management from an Organizational Perspective

A. Chris Curcio & Paul DeSante

Summary

The word “quality” has taken on new meaning and impact within our society. We use the term to describe our hotel chain, our shopping channel, our snowplowing services and even the type of automobile we build. Any particular “thing” with the word “quality” attached to it represents a very good thing in the mind of the consumer. Thus the term quality connotes excellence in the minds of many. In the past, we looked for said quality in our products we used more so than in the services we received. However, as our culture has evolved so too has our expectations for “quality” in every aspect of our lives. The element of “choice” has offered the consumer more options related to selecting only the best product or service to meet their needs. The phrase “only the strong survive” has taken on a new meaning indicating that only those business and service delivery providers who listen to their customers will survive in a competitive marketplace.

Organizational Quality

Today one of the fastest growing indicators of excellence within the community service delivery sector is the “quality” of the organization. Defining and delivering of a “quality” service has represented a difficult process. In the past, organizations developed services and then enrolled persons with disabilities in the service delivery system. Many times systems were, in fact, developed with little to no market analysis of the need for said service within the local community. The organization defined the “benchmarks” of quality within the system based upon adherence to self-made policies, procedures and guidelines as opposed to looking at the recipients of services and determining if the services were meeting their expectations and needs. Data systems have been prevalent however the systems themselves have been varied and have involved methodologies which have required volumes of paper that have not been integrated into any system. In addition, the element of “real-time data” has been almost non-existent. Thus it has been extremely difficult for the community-based system to utilize quality data results to institute the change process when and where it was needed. In short, the core of the system has proven to be a failure. The question has remained: How can the community-based health care industry utilize best practice with regards to design, development and implementation of a real-time evidence-based system within all settings? This question has prompted governments at all levels to begin to require providers to begin looking at the overall culture and climate of their organization and to institute best practice that has a proven record in business and emphasizes efficiency as well as efficacy.

Self-Analysis

In order to address the presenting problems within the service-oriented world it was necessary to conduct a self-analysis of the culture of the organization. A “baseline” of who we were and where we were, in comparison to our business world counterparts, was required prior to the design of any business plan. The findings of those activities indicated that our operations within the Dr. Gertrude A. Barber National Institute—a major community-based service provider—followed many business practices that did not align with those on the corporate side of the fence. We found we had many services that were meeting self-established and governmental standards but had no performance outcomes or measures to illustrate our commitment to the continuous improvement process. Additionally, we found that many of the services that we offered in the community setting were viewed by consumers as “quality” programs but the majority of those findings were based solely on anecdotal data, as opposed to clear, measurable performance indicators.

The organization itself had a very strong mission and vision, and a majority of the 1600+ employees of the organization had an understanding and an alliance with the mission. However, most of the services within the organization lacked a strong vision for their individual services. Thus there existed some lack of purpose and commitment within each of the 50+ service systems. Finally,

there existed a great deal of confusion surrounding data systems. Some persons were utilizing excel spreadsheets to collect and analyze data points within their service system, while others were using self-made word document templates to do data tracking. Analysis of the data collected was based more upon anecdotal comments than on empirical methodology. When data were utilized they were often dated, and their validity was questioned.

TOTAL:Quality

Against this background a forward-thinking approach toward the creation of a culture of excellence was presented. A business plan was conceived and developed based upon sound corporate management approaches and techniques. This plan incorporated the use of a real-time software support system that could be used throughout the organization to indicate what was being done, where, and by whom, and how the work was going periodically. The system needed to be sensitive to the various service systems, including support systems, and had to be relatively easy to operate. The system also had to demonstrate some interoperability with other systems in terms of using data regularly collected in conjunction with performance measures established. Said system, TOTAL:Quality, was secured and implemented. A formal deployment plan was instituted in late summer 2004. Over the course of a nine month period the system roll-out occurred and approximately fifty agency administrative and management staff were trained in system operation and implementation procedures. Service Line Directors were trained in the use of the system to manage the service line and how to “manage by mouse” within their service line. While this training was occurring, a business plan was deployed which emphasized the design of service line vision statements, the development of corporate values and the blueprint for a corporate compliance framework. To make a TOTAL: Impact on the organization there needed to be a cultural change within all levels of the organization. As a quality organization we needed to place emphasis on everyone recognizing the need for good performance outcomes, strong performance measures and the need to celebrate our accomplishments.

TOTAL:Quality—Information Technology Support for Organizational Quality Management, Implications for System of Care Evaluation, Management and Improvement

David Rumberger

Summary

For both providers and system of care evaluators, there is no shortage of data being collected, reviewed and discussed. Each year the Florida annual research conference on systems of care in children's mental health showcases this data collection and invites discussion. However, a significant impediment to posting notable progress from the system of care movement has been an inability to support, long-term, evaluation of system of care principles in a cost-effective manner. Part of the reason for this deficiency is an absence of the right tools.

TOTAL:Quality software is an electronic "process" tool designed to support continual organizational assessment. Previous efforts related to quality monitoring have typically been approached from a "content" perspective. In other words, CQI approaches and software applications have focused on *collecting information*, as opposed to focusing on *the process of linking people's behavior to their data*. TOTAL:Quality helps organizations and systems clearly define the parameters of quality; capture relevant performance measures and most importantly corrective, solution-focused actions for future follow-up. As such, it provides a formal and systematized process to monitor and evaluate the quality, utilization, safety, appropriateness, efficiency, and effectiveness of mental health care and service delivered to children and youth.

Different than individual assessments of quality (e.g. clinical progress assessment or assessment of individual therapies), the TOTAL:Quality focus is on organizational assessment. As such, aggregate data evaluated with respect to a system-prescribed or organizationally-defined benchmark is primary. Individual assessment of quality is a close "cousin" of organizational assessment; however, the focus from a management perspective is notably different. Managing an organization or a system of care involves defining the right quality performance measures, evaluating aggregate data collection against a benchmark and making (and tracking) action-oriented decisions with respect to "falling short" or surpassing a benchmark. TOTAL:Quality fully supports this process.

CONTRIBUTING AUTHORS

Melanie Barwick, Ph.D., C.Psych.

Health Systems Scientist, The Hospital for Sick Children, 555 University Avenue, Toronto, ON M5G 1X8, Canada, 416-813-1085, email: melanie.barwick@sickkids.ca

Chris Curcio

Director, Office of Quality Management & Corporate Compliance, Dr. Gertrude A. Barber National Institute, Erie, PA 16507, 814-480-6806, email: chriscurcio@barberinstitute.org

Paul DeSante

Compliance and Quality Specialist, Office of Quality Management & Corporate Compliance, Dr. Gertrude A. Barber National Institute, 100 Barber Place, Erie, PA 16507, 814-480-6803, fax: 814-453-2307, email: pdesante@barberinstitute.org

Bruce Ferguson, Ph.D., C.Psych.

Director, Community Health Systems Resource Group, The Hospital for Sick Children, 555 University Avenue, Toronto, Canada M5G 1X8, 416-813-8846, fax: 416-813-7258, email: bruce.ferguson@sickkids.ca

Vaishali Patel, M.P.H.

NIMH Pre-doctoral Fellow, Department of Health Policy and Management, John Hopkins Bloomberg School of Public Health, 732-261-8323, email: vapatel@jhsph.edu

David Rumberger, M.Sc.

Director of Sales and Marketing, Esteam, 2611 Stayton Street, Pittsburgh, PA 15212, 412-322-0629, email: drumberger@esteam.net

Maximizing Medicaid and Other Financing Strategies for Children with Serious Emotional Disturbances

This study is conducted as part of the research agenda of the Research and Training Center for Children's Mental Health, jointly funded by the National Institute on Disability and Rehabilitation Research, U.S Department of Education and the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration under grant number H133B040024.

Mary I. Armstrong
Sheila Pires
Beth Stroul
Jan McCarthy
Karabelle Pizzigatti
Ginny Wood

Introduction

This study aims to identify critical financing structures and strategies to support effective systems of care. In addition to the introduction of managed care strategies for Medicaid behavioral health services, funding sources for children's mental health services have diversified over the past 30 years resulting in multiple funding sources across multiple systems. The study uses a case study design to test our theory regarding a hypothesized set of financing structures and strategies, and to investigate and describe how these factors operate separately, collectively, and in the context of their community to create effective financing policies for systems of care. A related goal of the study is to promote policy change through dissemination, targeted technical assistance, and utilization of its findings by state and community planners and policymakers.

Methods

The information for this study will be gathered through a participatory action research approach and a multiple-case embedded design.

Participatory Action Research

A participatory action research approach has been selected because the study team believes it will contribute to the development and dissemination of products that are useful for the intended users of the research findings. During Phase I, the study team continued to develop its theory of change regarding how financing structures and mechanisms contribute to and operate within effective systems of care. The team convened a panel of national financing experts, family members, and state and county administrators to review the list of critical financing components and related evaluation questions, and to contribute to the study's theoretical framework regarding financing structures. The panel was asked to review each component to ensure significance and comprehensiveness, and to review and provide input regarding key questions to be explored related to each factor. Table 1 lists resultant critical financing strategies within their component categories.

Multiple Case Study Design

The multiple case study design will serve a number of purposes. A case study design is recommended when the goal is to explain causal linkages in complex environments where survey or experimental designs cannot be tested (Yin, 2003). The multiple case design is preferable over a single case design because it allows for replicating findings across a number of sites with varied circumstances, such as communities with established and potential financing strategies. The embedded unit of analysis will be the financing implementation processes at selected sites. Each selected site will be the subject of an individual case study, and the critical financing components detailed above will serve as the embedded units of study within each site.

Site Selection. A pool of potential sites was nominated by state children's mental health directors and the panel of experts assembled in Year 1 of the study. To meet the study's overall sampling criteria, all participating sites must have an expressed commitment to system of care values and principles. The study

will include ten case study sites. In order to test the theoretical framework, sites will be selected for their perceived ability to predict similar or contrasting results across sites.

In addition to the ten sites that will be visited, we will include telephone interviews for up to five additional sites with promising financing strategies recommended by the expert panel. This additional complement of sites provides an opportunity to further test the financing strategies and structures.

Site Visits. The method will include site visits to ten communities having some promising financing features. This will be the primary activity of Phase II, beginning in the last quarter of Year 1 and

Table 1
Critical Financing Strategies

<i>I. Development of a Strategic Financing Plan</i>
<ol style="list-style-type: none">1. Determine expected utilization and cost of behavioral health services for a defined population.2. Identify types and amounts of behavioral health funding across systems.3. Develop a strategic financing plan.
<i>II. Realignment of Funding Streams and Structures</i>
<ol style="list-style-type: none">1. Utilize diverse funding streams.2. Maximize the flexibility of state and/or local funding streams and budget structures.3. Coordinate cross-system funding.4. Maximize federal entitlement funding.5. Redirect spending from “deep-end” placements.6. Incorporate financing strategies to support a locus of accountability for service, cost, and care management for high-need populations.7. Incorporate mechanisms to finance services to uninsured and underinsured children and their families.8. Incorporate effective financing strategies for tribal systems of care.
<i>III. Financing of Appropriate Services and Supports</i>
<ol style="list-style-type: none">1. Support a broad service array.2. Promote individualized, flexible service delivery.3. Support and incentivize evidence-based and promising practices.4. Promote and support early identification and intervention and early childhood mental health services.5. Support cross-agency service coordination.
<i>IV. Financing to Support Family and Youth Partnerships</i>
<ol style="list-style-type: none">1. Support family and youth involvement in policy making.2. Support family and youth involvement and choice in service planning and delivery.3. Support services and supports to families/caregivers.
<i>V. Financing to Improve Cultural/Linguistic Competence and Reduce Disparities in Care</i>
<ol style="list-style-type: none">1. Support culturally and linguistically competent services and reduce ethnic/racial disparities in access.2. Reduce geographic disparities in access.
<i>VI. Financing to Improve the Workforce and Provider Network for Behavioral Health Services to Children and their Families</i>
<ol style="list-style-type: none">1. Support a broad, diversified, qualified workforce and provider network.2. Provide adequate provider payment rates.
<i>VII. Financing for Accountability</i>
<ol style="list-style-type: none">1. Incorporate utilization and cost management mechanisms.2. Utilize performance-based or outcomes-based contracting.3. Evaluate financing policies to ensure that they support and promote system of care goals and continuous quality improvement.4. Support leadership, policy, and management infrastructure for systems of care.

Note. For complete details on system-level outcomes, indicators, data sources, and data analysis plans, see <http://rtckids.fmhi.usf.edu/finance/default.cfm>

continuing in Years 2 and 3 of the Center. The selected sites for Year 2 of the study are: (a) Maricopa County, Arizona, (b) State of Vermont, (c) Bethel, Alaska, (d) State of Hawaii, and (e) Central Nebraska.

Each site will be asked to identify key informants prior to the site visit. Guidance will be provided so that the selected key informants have intimate knowledge of policy and operational decision-making related to financing strategies and knowledge of the outcomes achieved by these strategies, including the fundamental role they play in the development and sustainability of effective systems of care. The study team developed a semi-structured interview protocol that was reviewed and modified with the expert panel. The protocol questions relate to the critical components identified in Table 1, as well as current challenges, priorities, and system expectations.

Results

A final theory of change and set of financing critical structures and strategies was developed during the first year of the study. These structures and strategies were reviewed, revised and approved by a panel of experts in the field. A technical assistance tool (*A Self-Assessment and Planning Guide: Developing a Comprehensive Financing Plan*, by Armstrong, Pires, McCarthy, Stroul, Wood, et al., 2006) was also developed in Year 1. The tools and protocols will continue to be revised and refined. The final product will be a self-instructional guide that state and community policymakers and planners in community-based systems of care can use to assess the effectiveness of their financing structures and mechanisms. During Phase 2, brief case study reports will be developed and disseminated, both through mailings and on the Center's website. These reports will focus on the distinguishing features of established communities, and detailed descriptions of the promising features of their financing structures and strategies. In addition, as the case studies are conducted, the financing team will refine the data collection methods, tools, and protocols. The expected outcome is a set of protocols and tools that will be made available through the Center's website at the end of Phase 3.

Conclusion

During the final year of the Center, follow-up data collection will take place to see how much the self-instructional guide and other products were utilized, by whom, its perceived effectiveness, and outcomes of its use. The intent is that the study will result in the identification of a set of critical financing structures and strategies that support effective systems of care. The findings also will describe how these factors operate separately, collectively, and in the context of individual states and communities to create effective financing policies for systems of care.

References

- Armstrong, M. I., Pires, S. A., McCarthy, J., Stroul, B. A., Wood, G. M., & Pizzigati, K. (2006). *A self-assessment and planning guide: Developing a comprehensive financing plan* (FMHI pub. #235-01.). Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute, Research and Training Center for Children's Mental Health. Available at: <http://rtckids.fmhi.usf.edu/rtcpubs/hctrking/pubs/AssessPlanGuide2006/index.htm>
- Yin, R. K. (2003). *Case study research. Design and Methods* (3rd Ed.) Thousand Oaks, CA: Sage.

CONTRIBUTING AUTHORS

Mary I. Armstrong, Ph.D.

Research & Training Center for Children's Mental Health, Department of Child and Family Studies, Louis de la Parte Florida Mental Health Institute, University of South Florida, 13301 Bruce B. Downs Blvd., Tampa, FL 33612, 813-974-4601 fax: 974-7376, email: armstron@fnbi.usf.edu

Sheila Pires, M.P.A.

Human Service Collaborative, 1728 Wisconsin Avenue, NW, #224, Washington, D.C. 20007, 202-333-1892 fax: 202-333-8217, email: sapires@aol.com

Beth Stroul, M.Ed.

Management & Training Innovations, Inc. 11197 Longwood Grove Drive, Suite 100, Reston, VA 20194, 703-689-0950, fax: 703-689-0951, email: bethstroul@aol.com

Jan McCarthy, M.S.W.

National TA Center for Children's Mental Health, Georgetown University Center for Child & Human Development, Box 571485, Washington, DC 20057, 202-687-5062 fax: 202-687-1954, email: jrm33@georgetown.edu

Karabelle Pizzigatti, Ph.D.

3213 Fayette Road, Kensington, MD 20895, email: KPizzigati@aol.com

Ginny Wood, B.S.

Family Support Systems Consulting Firm, 20487 North 94th Avenue Peoria, Arizona 85382, 623-825-1744 fax: 623-825-7130, email: gmwood@att.net

Maximizing Medicaid for Children with Serious Emotional Disturbances

**Kathleen Biebel
Judith Katz-Leavy
Joanne Nicholson
Valerie Williams**

Introduction

The goals of this study were to identify unique and effective examples of the Comprehensive Community Mental Health Services for Children and their Families Program grantee sites using Medicaid to achieve sustainability by paying for community-based, individualized, behavioral health services and to describe these practices in the context of States' Medicaid Plans. The study findings identified creative and pioneering approaches to Medicaid as a mechanism to fund system of care services for children with serious emotional disturbances and suggested strategies useful to state-level systems administrators and grantee sites' program directors for developing sustainability plans.

Methods

The information for this paper was gathered in two phases. In phase one, survey data were collected and analyzed to identify grantee sites interested in participating in the study. In phase two, data collected through site visits were analyzed to identify key factors and strategies related to using Medicaid to provide reimbursement for system of care community-based services for children with serious emotional disabilities (SED) and their families.

Environmental Scan of CMHS Grantee Sites

In November 2003, Principal Investigators and Project Directors from 92 active and graduated grantee sites were surveyed regarding their use of Medicaid. These sites represent all SAMHSA-funded grantees sites as of October 2003. The survey asked about grantee sites' use of Medicaid Options and Waivers, the State Children's Health Insurance Program (SCHIP), The Early Periodic Screening, Diagnosis, and Treatment (EPSDT) program, other Waivers, financing mechanisms, and the availability of specialized managed behavioral health care systems. In addition, grantee sites were invited to self-identify as innovative in using Medicaid to finance wraparound services and were asked if they were interested in participating in the site visit study. The survey was reviewed and edited by experts in the field including children's mental health providers, administrators, researchers, and family members. The survey was approved for use by the University of Massachusetts Medical School (UMMS) Institutional Review Board (IRB). Fifty-four surveys were collected from November 2003 to May 2004, for a 59% response rate.

Site Selection

A National Advisory Group comprised of experts in children's mental health, Medicaid, financing, and systems of care was formed to provide guidance and feedback in selecting six sites to visit. Study investigators, in consultation with the National Advisory Group, developed selection criteria for site visits. Selected sites represented states with a range of Medicaid State Plan services and Waivers, financing mechanisms, and demographics of population served, i.e., race/ethnicity of populations and population characteristics, and represented a mix of geographic distribution. All selected sites had either recently graduated or almost graduated, as these would have the most experience working toward sustainability and interacting with Medicaid.

Study investigators developed a semi-structured interview protocol to capture information on relevant dimensions to Medicaid, financing and sustainability. The protocol was developed in consultation with the National Advisory Group, and was reviewed and approved for use by the UMMS IRB. An initial pilot was then conducted with one grantee site.

Site Visits

From September 2004 through January 2005 study investigators visited each of six grantee sites for two days. During these visits investigators met with and interviewed grantee sites' Principal Investigators and/or Program Directors, grantee site finance administrators, family members, partner agencies, provider agencies and, when possible, state/county Medicaid and/or SCHIP mental health liaisons. Interview questions were tailored to specific respondents. Interview questions focused on the background of the program, use of Medicaid, use of SCHIP, program financing, eligibility, and agency context. On the last day of the visit, investigators presented a summary case study report to the Principal Investigator and/or Program Director for feedback. Case studies were revised after site visits and additional feedback from grantee site program staff and participants were requested and integrated via email and telephone.

The following programs were selected for site visits: (a) Bridges (Appalachia/Eastern Kentucky; awarded 1998); (b) The Burlington Partnership (Burlington County, New Jersey; awarded 1999); (c) Community Connection for Families (Allegheny County, Pennsylvania; awarded 1998); (d) The Dawn Program (Marion County, Indiana; awarded 1999); (e) Partnership with Families/Transitions (St. Charles County, Missouri; awarded 1998/St. Louis City and St. Louis County, Missouri; awarded 2003); and (f) Spirit of Caring (Contra Costa County, California; awarded 1999).

Results

Table 1 summarizes the financing strategies identified within each site. The variety of approaches allowed investigators to identify innovations as well as commonalities across sites.

Grantee sites reported Leadership and Shared Vision, and Partnerships and Collaboration as most important and essentially as prerequisites to their ability to access Medicaid and to utilize this funding source as one strategy toward sustaining their programs. Grantee sites also reported Understanding the Culture of Medicaid as a challenge to accessing Medicaid in an effort to sustain programs. Lessons learned were identified from the study findings: all sites reported incorporating many of the strategies listed below.

Leadership and Shared Vision

1. Achieving consensus on a common vision among key stakeholders at state and local levels
2. Using legislation as a strategy

Partnerships and Collaboration

1. Developing strong partnerships/relationships with the state mental health authority to facilitate a parallel process at the state level
2. Developing strong partnerships/relationships and collaboration with Medicaid at the state level
3. Creating a governance board with decision-making power
4. Partnering with families
5. Forming partnerships to create innovative funding streams

Understanding the Culture of Medicaid

1. Finding creative uses of traditional Medicaid mechanisms
2. Developing infrastructure related to information technology (IT)
3. Emphasizing Medicaid eligibility
4. Understanding Medicaid's rules to work effectively within them and propose changes when necessary
5. Educating stakeholders regarding the culture of Medicaid
6. Utilizing options and waivers to maximize flexibility

Table 1
Financing Strategies by Site

Bridges (KY)

- Rehab Option: Expansive definition of where services can be provided, strong utilization of Option to provide services in schools
- Targeted Case Management Services (for service coordination)

The Burlington Partnership (NJ)

- Pool and braid funds to leverage Rehab Option and EPSDT
- Use of rate setting methodology to reflect market rates
- Use of administrative claiming to fund parts of the Family Service Organization and Administrative Service Organization
- Household-of-one designation
- Presumptive eligibility

Community Connections for Families (PA)

- Mental health portion of Medicaid carved out by state and administered by county
- Incremental mandatory state managed care program under 1915b Waiver
- EPSDT used to expand services including Mobile Therapist, Behavioral Specialist Consultant, and Therapeutic Staff Support
- Bundle of services known as wraparound

The Dawn Project (IN)

- Under Rehab Option services must be provided by CMHCs - case managers/supervisors employed by CMHCs
- Utilization of Clinic Option to pay for therapy and day treatment
- Utilization of case rate- each referral source pays fixed monthly rate upon enrollment
- IT system facilitates billing of Medicaid

Partnership with Families/Transitions (MO)

- Part of Medicaid administered under 1115 and 1915b Waivers known as Missouri Care Plus (MC+)
- Utilization of both Fee For Service and Managed Care systems based on geography
- Rehab Option, known as Community Psychiatric Rehabilitation, carved out under MC+ (used to provide in-home services)

Spirit of Caring (CA)

- Mental health portion of Medicaid (MediCal) carved out by state and administered by county
 - County serves as Medicaid managed care entity
 - Child mental health services carved out from physical health
 - Rehab Option used to access broad array of community-based services
-

Discussion/Conclusion

This study revealed that the federal Medicaid program has been effectively utilized by a number of states to expand community-based services within the framework of systems of care for children with serious emotional disorders (SED) and their families. Medicaid has therefore become an extremely significant factor in enabling these systems of care to be sustained after federal demonstration support ends. The study has revealed the great value of the Rehabilitation Option in enabling children with SED to access a range of community-based services, and highlighted the role of the Targeted Case Management Option in helping Medicaid-eligible children with SED gain access to non-Medicaid supports and services such as mentoring, respite, and individualized education and recreation interventions, states and communities are faced with the prospect of losing access to these important services.

Finally, the study found very little reliance on SCHIP to assist this population in accessing non-traditional community-based behavioral healthcare services such as wraparound, individualized treatment team planning, behavioral aides, etc. This was attributable, at least in part, to the fact that most of the SCHIP plans in the states visited mirrored private health insurance and therefore did not contain the flexibility provided through the various Options and Waivers under Medicaid.

In summary, leadership, shared vision, partnerships, collaboration, and understanding and bridging the Medicaid and behavioral health cultures were key elements in enabling sites to maximize their utilization of Medicaid to cover services delivered through systems of care to children with SED and their families. These elements will continue to be critical in the future as national, state, and local public officials and communities consider changes being proposed for the Medicaid program and how those changes might impact the well being of this population.

CONTRIBUTING AUTHORS

Kathleen Biebel, Ph.D.

*University of Massachusetts Medical School, Center for Mental Health Services Research,
Department of Psychiatry, 55 Lake Avenue North, Worcester, MA 01655, 508-856-8717,
fax: 508-856-8700, e-mail: kathleen.biebel@umassmed.edu*

Judith Katz-Leavy, M.Ed.

*Independent Consultant, Child and Family Mental Health, 3053 Porter Street, NW,
Washington, DC 20008, 202-362-8298, e-mail: jkatzleavy@gmail.com*

Joanne Nicholson, Ph.D.

*University of Massachusetts Medical School, Center for Mental Health Services Research,
Department of Psychiatry, 55 Lake Avenue North, Worcester, MA 01655, 508-856-8712,
fax: 509-856-8700, e-mail: joanne.nicholson@umassmed.edu*

Valerie Williams, M.A., M.S.

*University of Massachusetts Medical School, Center for Mental Health Services Research,
Department of Psychiatry, 55 Lake Avenue North, Worcester, MA 01655, 508-856-8712,
fax: 508-856-8700, e-mail: valerie.williams@umassmed.edu*

Managing Risk and Costs Using Data-Based Decision Making

Shannon Van Deman
Knutte I. Rotto
Vicki Sprague Effland

Introduction

The Dawn Project, which is the system of care in Marion County (Indianapolis), Indiana, serves youth with serious emotional disorders who are at-risk for or have a history of residential placement. The Dawn Project receives referrals from several child-serving systems including child welfare, juvenile justice, education, and mental health. At the time of referral, approximately 60% of youth are in costly out-of-home placements. These youth represent a substantial financial burden to the systems mandated to serve them. Consequently, the Dawn Project has sought innovative ways to stabilize costs and find community-based solutions for serving these youth.

The Dawn Project manages costs within a per-client, per-month, case rate (\$4379) paid by the referring agency. This funding structure provides the flexibility needed to deliver individualized, family-driven, community-based, strength-based, and culturally competent care. Through the case rate structure, child and family teams (which include the youth, family members, a Dawn Project service coordinator, representatives from the referral agency, providers and other individuals identified by the family) have the ability to develop service coordination plans and to purchase needed services that help youth and families succeed at home, in school, and in the community.

Now in its ninth year, the Dawn Project has learned that the challenge with using a case rate is that risk is inherent within this funding structure. The case rate, like insurance premiums, presupposes that you will make money in some instances and lose money in others. However, this balancing out is not guaranteed. The Dawn Project learned this lesson first hand a few years ago when costs were soaring and sustainability was threatened.

The purpose of this study was two-fold. First, it was hypothesized that the methods used by managed care organizations to manage costs and risk could be employed successfully at the Dawn Project. Second, it was hypothesized that employing such risk management methods would not adversely impact youth outcomes.

Method

In the managed care literature, there are three things that you need to know or be able to estimate in order to manage risk: how many youth will use services, how many units of services each youth will use, and how much one unit of service costs (Broskowski, 1997; 1998)? Once these three pieces of information are known, the key to managing costs and risk is managing each one of those factors to the extent possible. Since expenditures on residential treatment account for 56% of total expenditures at the Dawn Project, each of the risk determining factors was examined by using residential treatment data.

The Dawn Project experienced increased spending during its sixth and seventh year of operation. In an effort to understand the cause for this increase, the data were analyzed to look for changes over time. Time was defined in terms of the year of Dawn Project enrollment. In other words, all youth enrolled during the first year of operation were assigned to the first year, all youth enrolled during the second year of operation were assigned to the second year, etc. The year of disenrollment was not taken into consideration.

Youth outcomes were tracked over time by using the Child and Adolescent Functioning Assessment Scale (CAFAS; Hodges, 1996) to ensure that any changes made when managing risk did not negatively impact the youth.

All juvenile justice and child welfare youth referrals enrolled between May 1, 1997 and April 30, 2005 were examined ($N = 667$). The data were obtained from The Clinical Manager (TCM; Clinical Data Solutions LLC, 1998), which is the information management system used by the Dawn Project to collect clinical, fiscal and outcome information.

Results and Discussion

The data were analyzed using SPSS (SPSS Inc., 2002). All statistically significant results rely on an alpha level of .05.

How many youth will use services?

The proportion of youth in residential treatment at the time of Dawn Project enrollment is shown in Figure 1. The youth were considered as being in residential treatment at time of enrollment if they were either in residential treatment or placed in residential treatment within 31 days of enrollment. Steady increases are shown in the proportion of youth in residential treatment over time, reaching all time highs in Dawn Project years six and seven (57.3% and 62.7%, respectively).

The increase in residential treatment reflects a change in the referral agency's behaviors. Over time, the referral agencies started referring more and more youth in residential treatment the Dawn Project. This makes sense for the referral agencies because the Dawn Project case rate was less expensive than paying for residential treatment directly. However, the Dawn Project case rate was not able to accommodate this many youth in residential treatment. The Dawn Project was able to use this data to explain to the referring agencies that the increase in residential referrals was jeopardizing the Dawn Project. As a result, the proportion of youth referred in residential treatment dropped from 62.7% at seven years to 30.1% at eight years ($\chi^2(1, N = 185) = 19.5, p = .00$).

How many units of services will each youth use?

The average number of days spent in a residential treatment facility for those youth with residential treatment during their Dawn Project enrollment is shown in Figure 2. The average number of days stayed relatively constant for the second ($M = 120.7, SD = 99.0$), third ($M = 131.1, SD = 101.8$), fourth ($M = 121.4, SD = 95.7$), and fifth ($M = 120.3, SD = 119.3$) years of the Dawn Project, but increased by about 40 days in the sixth ($M = 160.0, SD = 103.2$) and seventh ($M = 157.5, SD = 102.8$) years. The reason for these increases is not known. However, in response to these data, the Dawn Project began tracking residential lengths of stay more closely. The amount of time spent in residential treatment was tracked for all youth. If a youth was still in residential treatment after six months, a staffing occurred and

Figure 1
Proportion of Youth in Residential Treatment at Dawn Project Enrollment by the Youth's Dawn Project Enrollment Year

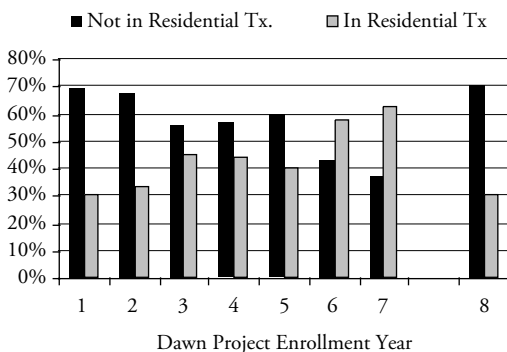
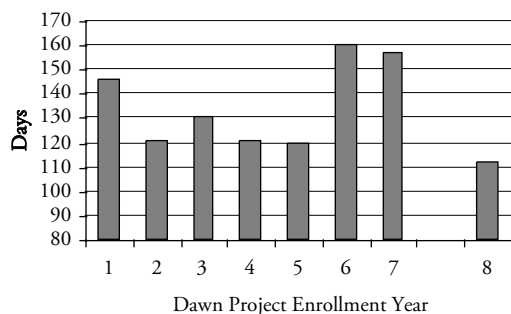


Figure 2
Average Number of Days Youth Spent in Each Residential Treatment Facility by the Youth's Dawn Project Enrollment Year



other options were explored. These efforts lead to a programmatically meaningful decrease of 45 days between the seventh and eighth years. An independent samples *t*-test revealed that the difference was approaching statistical significance ($t(109) = 1.6, p = .12$).

How much does one unit of service cost?

An omnibus ANOVA revealed that the average per-day rate for residential treatment did not vary as a function of Dawn Project enrollment year ($F(7,558) = 1.3, p = .24$). The average per day rate was \$239 ($SD = 52.5$).

CAFAS

Individual functioning was assessed using the CAFAS (Hodges, 1996) to determine whether changing the proportion of youth in residential treatment at time of enrollment or changing the average number of days spent in residential treatment influenced youth outcomes. Total CAFAS scores were computed at the time of enrollment and disenrollment from the Dawn Project. The difference score was obtained by taking the total score at disenrollment from the total score at enrollment. The difference scores during the seventh and eighth years of the Dawn Project are of interest in the context of the changes described above. The average difference score in the seventh year was 43.8 ($SD = 48.8$); a one-sample *t*-test revealed that the mean was statistically different from zero ($t(55) = 6.7, p = .00$). The average difference score in the eighth year was 31.9 ($SD = 59.4$); a one-sample *t*-test found that the mean was statistically different from zero ($t(36) = 3.3, p = .00$). Importantly, there was no statistical difference found between the seventh and eighth years ($t(91) = 1.1, p = .30$). Furthermore, both years difference scores reach clinically significant levels as defined by a 20 point decrease in total CAFAS score (Hodges, 1996).

Conclusions

It was found that the framework used by managed care organizations to manage costs and risk were employed successfully to residential treatment services at the Dawn Project. In fact, after employing these risk management methods the Dawn Project saw the average per client per month cost decrease by \$1626. Additionally, using the selected risk management methods did not adversely impact youth outcomes. This suggests that the risk management methods used by managed care organizations can successfully be used in a system of care environment. These are powerful tools that can be used to decrease costs and manage the inherent risk assumed when using a case rate funding structure.

References

- Broskowski, A. (1997). The role of risk-sharing arrangements. In L. Scallet, C. Branch, & E. Steel (Eds.), *Managed care: Challenges for children and family services*. Baltimore, MD: The Annie Casey Foundation.
- Broskowski, A. (1998). *Managed care technical assistance series: Estimating and managing risks for the utilization and cost of mental health and substance abuse services in a managed care environment* (DHHS Publication No. 98-3240). Washington, DC: U.S. Government Printing Office.
- Clinical Data Solutions LLC, (1998). *The Clinical Manager*. Madison, Wisconsin.
- Hodges, K. (1996). *Child and Adolescent Functional Assessment Scale*. Ypsilanti, MI: Department of Psychology, Eastern Michigan University.
- SPSS, Inc. (2002). *SPSS Statistical Software: Version 11.5*. Chicago, IL: Author.

CONTRIBUTING AUTHORS

Shannon Van Deman, B.S.

Quality Manager, Choices, Inc., 4701 N. Keystone Ave., Suite 150., Indianapolis, IN 46205, 317-205-8311, fax: 317-202-4308, email: SVanDeman@ChoicesTeam.org

Knute I. Rotto, A.C.S.W.

CEO, Choices, Inc., 4701 N. Keystone Ave., Suite 150., Indianapolis, IN 46205, 317-205-8202, fax: 317-202-4202, email: KRotto@ChoicesTeam.org

Vicki Sprague Effland, Ph.D.

Director of Outcomes and Evaluation, Choices, Inc., 4701 N. Keystone Ave., Suite 150, Indianapolis, IN 46205, 317-205-8232, fax: 317-202-4325, email: VEffland@ChoicesTeam.org

Matching Service Expenditures with Clinical Outcomes in a System of Care: Preliminary Findings

James M. Papp

Introduction

Service delivery systems across the country are challenged to develop new and creative ways to meet the complex needs of children and families. In an era of limited resources, programs must be proven clinically effective and demonstrate value for both participants and funders. Hamilton Choices, LLC (Choices) manages the Mosaic Project, an integrated system of care (SOC) in Hamilton County, Ohio. Mosaic serves at-risk youth and families in the greater Cincinnati, Ohio area by providing intensive care coordination through the use of child and family teams (CFTs). A wraparound (Burns & Goldman, 1999) approach is used and a case rate reimbursement system is in place.

In their final report, *Achieving the Promise: Transforming Mental Health Care in America*, the New Freedom Commission on Mental Health (2003) identifies programs operating within a system of care framework as models for providing services to children with serious emotional disturbances and their families. Benefits cited include positive clinical outcomes and reduced costs. Recent system of care research (Kutash, Duchnowski, & Friedman, 2005; Rosenblatt, 2005) supports this claim of effectiveness citing positive clinical outcomes for youth studied. Additional studies (Foster & Connor, 2005) addressed cost and outcomes, citing reductions in juvenile justice and child welfare expenses for youth served in a system of care. Although reductions in other child serving systems failed to completely offset the increased cost of mental health services in the SOC site studied, further analyses revealed other positive outcomes for youth in the SOC compared to the matched site (Foster & Connor, 2005).

This paper advances the methods used in an earlier service expenditure study (Papp, 2006) by examining youth functioning over time in relation to service expenditures for those youth during the same period. Of primary interest was whether or not youth participating in wraparound, a planning process commonly used within a system of care that emphasizes natural supports and low or no cost resources, could evidence both improved functioning and reduced average service expenditures.

Methods

Participants

Several criteria were established to identify participants in the study. First, youth had to be discharged between November 2002 and February 2006. Second, youth had to be enrolled in Mosaic a minimum of fifteen months. Fifteen months serves as the review period for the study and was chosen as it is equal to the average length of stay (LOS) for all disenrolled youth to date. Third, ratings on the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1996) had to be available at the following rating intervals: enrollment, three months, six months, nine months, twelve months, fifteen months, and discharge.

During the period, Mosaic had 448 program discharges. Of these, 234 were enrolled less than fifteen months and were removed from the analysis leaving 214 possible participants. Of these 214 participants, 100 were excluded from the analysis because CAFAS ratings were not available at all required administration points. There are three primary reasons that CAFAS ratings were not completed on these youth. First, CAFAS ratings are not completed on youth ($n = 25$) with developmental disabilities whose clinical profile makes them inappropriate for rating on the CAFAS. Second, the fifteen month CAFAS rating was not completed for 27 youth because program discharge occurred ninety days or less from the twelve month CAFAS rating. Third, one or more CAFAS ratings were not completed for 48 Mosaic youth. Thus, 114 youth met all study requirements and were the basis for further analyses.

To test for differences between included and excluded records and to measure change in functioning for all youth disenrolled from Choices irrespective of length of stay, analyses of average enrollment and discharge CAFAS scores were conducted for all discharged youth, discharged youth with less than fifteen months LOS, and discharged youth with greater than fifteen months. Statistically significant CAFAS reductions (indicating an increase in functioning) were found for each group. A secondary analysis reviewed average service expenditures per enrollment day (E Day) for youth with a minimum fifteen month LOS, but failed to also meet CAFAS inclusion criteria. Similar statistical findings were found for this group ($n = 71$) and the study group ($n = 114$).

Procedure

Service expenditures were extracted for each service paid for by the project during the same fifteen-month period measured by the CAFAS. Using an ordinal month strategy, these expenditures were coded based on the number of months elapsed from enrollment to the month in which the expenditure occurred. By using this method, expenditures occurring during the first month of enrollment (and successive months) are grouped irrespective of enrollment date. Following this, ordinal month values were assigned to quarters (e.g. months one, two, and three equal to quarter one).

Quarterly service expenditures were summed and then divided by quarterly E Days for the 114 participants. E Days are used to determine monthly project reimbursement. Each day that an enrollee is in open case status during a calendar month is equal to one E Day. Monthly E Days for all enrollees are multiplied by a predetermined dollar amount (case rate) to generate monthly operating funds. The E Day metric is essential to the service expenditure analysis and is used to help establish monthly parity. Without this qualifier, analyses of quarterly service expenditures could be skewed due to the variation that can occur in the number of monthly service days.

Although the same 114 records were reviewed in each quarter, days of service varied based on individual enrollment dates. Rather than taking average E Days per quarter by multiplying 114 youth times average days in a month (30.42) times 3 (number of months in a quarter), the analyst calculated exact E days for each youth for each month of enrollment. The ordinal month strategy described above was applied to ensure that service expenditures were paired with the corresponding days in which those expenditures were incurred. As the CAFAS is rated at three-month intervals, with the preceding ninety days used to rate level of functioning in eight life domains, service expenditures for youth in the first ordinal quarter can be equated to the three month CAFAS rating as the service expenditures associated with that period of review were accumulated in the preceding three months.

A second variable addressed to ensure accuracy in the average service expenditure per E Day calculation was youth placement status. Due to the fact that Mosaic is not responsible for payment while youth are placed in a psychiatric hospital and that, for the most part, formal paid services other than care coordination are “on hold” while in an absent without leave (AWOL), juvenile detention, or psychiatric hospital placement status, the E Days associated with these stays were accounted for and subtracted from the final quarterly divisor. As withheld days were only a small percentage of the total days in each quarter, results in which E Days were controlled vs. not controlled in this manner revealed no differences. Despite this finding, failing to control for days could have artificially lowered quarterly average service expenditures per E Day as the E Day divisor would have been higher than the actual number of community days during which these expenditures were incurred.

Data Sources

The CAFAS (Hodges, 1996), is a clinician-rated measure of functioning for youth aged 6 to 17 years of age and is divided in to eight life domains or subscales. CAFAS analyses use scores obtained from Mosaic’s information management system, The Clinical Manager (TCM; Clinical Data Solutions, LLC, 1998). Service expenditure data is also obtained from TCM and does not include Medicaid claims payments due to delays between date of service and payment that can range up to 365 days.

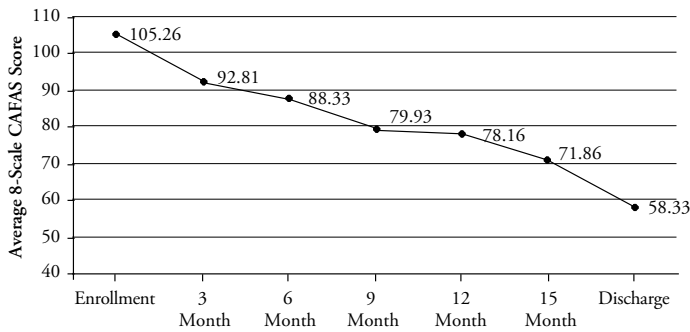
Results

Analyses were conducted using SPSS (2002). Paired-samples *t*-tests were conducted to compare mean CAFAS scores at enrollment, three months, six months, nine months, twelve months, fifteen months, and disenrollment and to compare mean service expenditures per E Day across five quarters (each quarter represents three ordinal months of service) for 114 participants.

CAFAS

Statistically significant decreases in CAFAS scores, reflecting an increase in functioning, were observed between enrollment ($M = 105.26, SD = 43.54$) and three months ($M = 92.81, SD = 41.47$), $t(113) = 3.898, p < .001$; between six months ($M = 88.33, SD = 42.15$) and nine months ($M = 79.93, SD = 42.36$), $t(113) = 2.746, p < .01$; between enrollment ($M = 105.26, SD = 43.54$) and fifteen months ($M = 71.86, SD = 47.50$), $t(113) = 6.579, p < .001$; and between enrollment ($M = 105.26, SD = 43.54$) and discharge ($M = 58.33, SD = 41.07$), $t(113) = 9.278, p < .001$ (see Figure 1).

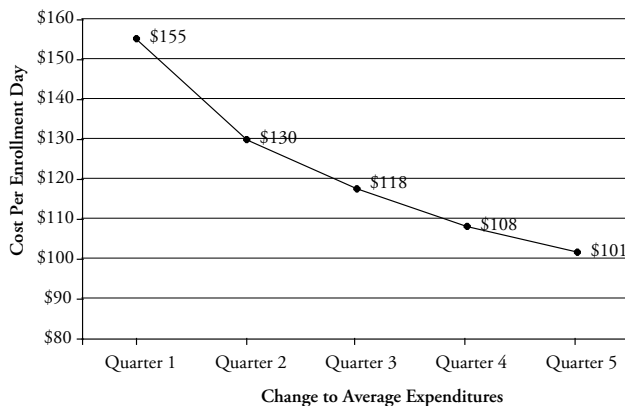
Figure 1
CAFAS Change Over Time
($N = 114$)



Service Expenditures

Average service expenditures per E Day also decreased significantly during the time period analyzed. Specifically, this decrease was observed between Quarter 1 ($M = \$154.71, SD = 111.06$) and Quarter 2 ($M = \$129.62, SD = 89.92$) $t(113) = 3.272, p < .001$; and between Quarter 1 ($M = \$154.71, SD = 111.06$) and Quarter 5 ($M = \$101.03, SD = 76.93$), $t(113) = 5.178, p < .001$. (see Figure 2).

Figure 2
Service Expenditures Per Enrollment Day
($N = 114$)



Discussion

Preliminary findings suggest that the Mosaic Project administered and managed by Hamilton Choices, LLC has demonstrated the ability to achieve positive clinical outcomes (i.e., improved functioning as measured by CAFAS) while maximizing available resources. Statistically significant reductions in CAFAS average 8-scale score between enrollment and fifteen months and between enrollment and discharge indicate that after individual lengths of stay equal to the program's historical length of stay and more importantly between enrollment and discharge, benefits for enrolled youth and their families can be found in the form of improved functioning.

Positive downward trends in service expenditures are also evident. Matching service expenditures to the same period of time measured by the CAFAS, significant reductions are observed. This seems to indicate that given a minimum length of stay, Mosaic is able to positively impact both clinical outcomes and service expenditures. Although additional study is needed to better understand optimal service dosage and its relationship to outcomes and service expenditures, one possible interpretation of these early findings is that a minimum of nine months is needed for significant CAFAS improvement. Months nine through fifteen also reveal an interesting trend. During this period, no significant additional improvement in CAFAS is found. It is hypothesized that this may be a period during which gains realized in the first nine months are fostered and further engrained as youth enter a transition phase and discharge approaches. Lastly, as average service expenditures during months nine through fifteen are relatively flat and reveal no significant increases, it appears that this hypothesized maintenance of gains period does not include additional resource allocation. Confidence in findings is supported by the fact that youth not meeting study inclusion criteria showed similar scoring patterns in average 8-scale CAFAS and in average service expenditure per enrollment day to youth who did, indicating that little or no difference exists between the two groups.

Conclusion

Social service providers must learn to effectively balance the achievement of outcomes with the resources necessary to produce those same outcomes. If this ratio of outcomes to required resources is prohibitive, program sustainability is jeopardized. This in turn can place additional strain on the delivery system, resulting in potential service gaps for children and families. To have a significant policy impact, capable of driving system transformation and change, research must show not only what works clinically but also the associated costs. Although this study is limited to a relatively small sample, contains no comparison expenditure data, excludes Medicaid, and uses only Mosaic program service expenditures rather than the much broader set of data that would be necessary to analyze *cost*, by matching service expenditures to the same period during which clinical outcomes are tracked, a basic method is introduced that is ripe for refinement and additional rigor. With added study, additional data to more completely represent cost, and advancements in methodology and statistical testing, questions regarding the effectiveness and efficiency of wraparound and systems of care can be better understood with findings used to inform public policy debate, decision making, and system planning.

References

- Burns, B., & Goldman, S. (Eds.), (1999). *Promising practices in wraparound for children with serious emotional disturbances and their families. Systems of care: Promising practices in children's mental health, 1998 series, Volume IV.* Washington, DC: Center for Effective Collaboration and Practice, American Institutes for Research.
- Clinical Data Solutions, LLC, (1998). *The clinical manager.* Madison, Wisconsin.
- Foster, E. M., & Connor, T. (2005). Public costs of better mental health services for children and adolescents. *Psychiatric Services* 56(1), 50-55.
- Hodges, K. (1997) *Child and Adolescent Functional Assessment Scale.* Ypsilanti, MI: Eastern Michigan University, Department of Psychology.
- Kutash, K., Duchnowski, A. J. & Friedman, R. M. (2005). The system of care 20 years later. In M. H. Epstein, K. Kutash, A. J. Duchnowski (eds.), *Outcomes for children and youth with emotional and behavioral disorders and their families: programs and evaluation best practices, 2nd Edition*, pp. 307-328. Austin, TX: PRO-ED, Inc.
- New Freedom Commission on Mental Health (2003). *Achieving the promise: Transforming mental health care in America.* Final Report. Rockville, MD: DHHS Pub. No. SMA-03-3832.
- Papp, J. M. (2006). The financial impact of decreased residential treatment utilization in a newly managed system of care. In C. Newman, C. Liberton, K. Kutash, & R. Friedman (Eds.), *The 18th Annual Research Conference, A System of Care for Children's Mental Health: Expanding the Research Base* (2005, March), pp 379-384, Tampa, FL: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Research and Training Center for Children's Mental Health.
- Rosenblatt, A. (2005). Assessing the child and family outcomes of systems of care for youth with serious emotional disturbance. In M. H. Epstein, K. Kutash, A. J. Duchnowski (eds.), *Outcomes for children and youth with emotional and behavioral disorders and their families: Programs and evaluation best practices, 2nd Edition*, pp. 143-173. Austin, TX: PRO-ED, Inc.
- SPSS (2002). *SPSS Statistical software: Version 11.5.* Chicago, IL: SPSS, Inc.

CONTRIBUTING AUTHOR

James M. Papp, M.S.W.

Evaluation Consultant, Hamilton Choices, 644 Linn Street Suite 900, Cincinnati, OH 45203, 513-765-5500, fax: 513-765-5555, email: jpapp@hamiltonchoices.org

Development and Testing of a Model Fidelity Assessment Package for an Ecological Family-Based Intervention Program

Stephanie Ingram
Tanya Shaw
Richard Munger
Ronald W. Thompson
Amy Simpson

Introduction

With the national movement to identify and implement evidence-based treatments, model fidelity has emerged as a central issue. Akin to the conundrum that an instrument cannot be valid unless it is reliable, an intervention may be empirically validated but cannot be effective if it is not faithfully implemented. This paper reports on the efforts of the Girls and Boys Town National Research Institute to develop and implement the results from a set of model fidelity tools.

Since 1989, Girls and Boys Town Family Based Services have been used to help families in crisis. Designed as a home-based, family-centered alternative to out-of-home placement for children at risk of removal, the program was adapted from a long-term, family-style residential care and education program. A family consultant provides services with the goal of providing assessment and treatment in order to stabilize and strengthen the family. Preliminary program evaluation findings indicated significant improvements in child behavior problems, parenting stress and referral problems at departure, which were maintained at three months follow-up (Thompson, Sinisterra, North & Castrianno, 2001).

Due to the complex nature of families in crisis, we recently expanded this intervention to make the emphasis on the family's environment more explicit. Treatment was expanded to incorporate a more ecological approach in which the primary emphasis is on making the environment in which a child and family live more functional, resource rich and supportive (Munger, 1998). Combining the original program concepts, teaching components and relationship building, with a more thorough examination of environmental factors, the child's entire ecology is organized around positive peer, school and neighborhood support systems (Larzelere, Daly, Davis, Chmelka & Handwerk, 2004). Further, by linking the family with community resources and utilizing the family's natural therapy systems, there are also more natural supports in place that families can continue to utilize after services have ended.

This new approach is called the Ecological Family Based Model (EFBM) and consists of three stages. The primary focus of *Stage I* is to build relationships with family members to establish a foundation to engage and motivate change in the child and family. *Stage II* focuses on teaching skills, and building on identified strengths. Additionally, various resources in the family's natural environment are identified and utilized to provide the resources and skills needed to change. The focus of *Stage III* is on generalizing skills and establishing the family's independence and competency within their ecology.

Before embarking on a systematic outcome evaluation of the revised program, it was necessary to clearly define the model, create assessment, training and supervision tools, and develop practical measures to assess model fidelity. We recently conducted a pilot study to test and refine a new comprehensive model fidelity package, including an observation technique, service delivery tracking form, consumer survey, and file review process.

The goals of the pilot study were to: (a) determine the feasibility of the model fidelity tools; (b) give interviewers, file reviewers and observers practice using the methods; (c) identify terminology or jargon problems; (d) identify whether the response scales were appropriate; and (e) suggest program refinements based on data collected.

Method

A 5-week pilot study of the revised program was conducted at one implementation site. Evaluators, supervisors and staff administered each of the four model fidelity data collection tools. Evaluators were on-site during week one of the pilot study completing observations, file reviews, and service delivery tracking

forms. Further, evaluators trained site staff to use the tools. Site staff administered the model fidelity tools during the final four weeks of the pilot study. This multi-method approach was used to accurately capture the fidelity of the intervention, which occurs in diverse settings and across several treatment activities.

Instruments. The *observation instrument* was designed to detect individual and program-level implementation. It involves an external observer and specific item definitions, descriptive notes on the observation, ratings on implementation of specific components of the model, ratings of overall treatment implementation, and automated report features. Three key areas are assessed: teaching components, relationship building and enhancing natural therapy systems. Specific items were rated on a five-point anchored scale. Overall ratings are also completed for each area. The *service delivery tracking form*, based on a study conducted by Cash and Berry (2003), provides data on service elements that a family consultant may provide the family during visits. The family consultant self-reports services he/she provides the family during in-home visits. The *consumer survey* includes 18 statements for families to rate their opinions and experiences of services they received. The *file review* process involves an examination of client files. Initial assessment documentation, treatment plans, and progress reports are evaluated by an objective third party to assess model fidelity.

Findings

Both evaluators and supervisors felt that the observation instrument provided a more concrete and objective way to assess fidelity and provide feedback to family consultants than existing observation methods. In addition, the automated report features offered a variety of useful ways to share the feedback. Results from testing the observation instrument indicated a variety of high and low scoring items. Table 1 outlines the three highest and lowest rated items for teaching components and relationship building. These components were suggested as areas of strength and weakness for program implementation.

The service delivery tracking form served as an excellent supplement to the observation instrument because evaluators and supervisors were unable to observe every model component during a time-limited home visit. Combined with the observation instrument, the service delivery tracking form provided a more complete picture of model adherence. Consultants found that the service delivery tracking form was user-friendly and time efficient. It also served as a reminder of service activities when writing progress notes. Data collected indicated that the highest percentage of model components utilized during visits occurred in the individual and family domains (see Table 2).

During the pilot study only three consumer surveys were completed. Early testing of the file review process indicated acceptable inter-rater reliability (93% agreement). The process was informative, but time-intensive (30-40 minutes/file). A review of initial assessment documentation from the file review indicated that family consultants assessed all five domains at least 90% of the time (see Table 2). However, the majority of treatment plans incorporated only the individual and family domains.

Conclusion

The results of this pilot study suggested that the observation instrument and the service delivery tracking form were the most practical model fidelity assessment tools. These tools proved useful for treatment supervisors in helping family consultants adhere to the program model. However, the file review method was reliable but time intensive, and a consumer survey had a very low response rate. Results also suggested that initial assessments addressed all environmental domains, but service components and interventions tended to focus more in the individual and family domains rather than other environments that can provide important natural supports to the family during and after treatment. Based upon these results the model fidelity tools are being revised. In particular the natural family therapy systems section is being expanded and defined more carefully. Supervisors and evaluators will use the revised tools to promote model fidelity and assess implementation during a more comprehensive outcome study of the revised program. Further, it is our hope that the field will benefit from a more rigorous refining of fidelity concepts and testing of their application.

Table 1
Highest and Lowest Rated Observation Instrument Items

<i>Teaching Components Items</i>	<i>N</i>	<i>Mean</i>
Highest Rated		
Models appropriate standards of dress/grooming	25	4.20
Models appropriate behaviors (behaviors generally acceptable to society and to other professionals)	24	3.96
Asks questions in a friendly, warm and respectful manner to explore how the individuals and their ecology can be helped	23	3.91
Lowest Rated		
Uses confrontation to express concern that behavior needs to change or that feedback should be implemented	12	2.25
Ensures adequate practice of skills	14	2.36
Uses circular refocusing to bring the individual back to a solution-oriented focus	11	2.82
<i>Relationship Building Items</i>		
Highest Rated		
Maintains quality components (pleasant voice tone, warmth and compassion, comfortable proximity, eye contact, appropriate humor)	23	4.09
Demonstrates appropriate roles and boundaries	25	3.92
Models the “Pillars of Character” (trustworthiness, respect, responsibility, fairness, caring, citizenship)	20	3.80
Lowest Rated		
Assures families that other families have been in similar situations	8	2.25
Includes all family members in the intervention strategies	22	3.14
Appropriately discloses past personal experiences that relate to the family’s current situation	8	3.38

Table 2
Service Delivery Tracking Form and File Review Assessment and Treatment Results

<i>Domain</i>	<i>Service Delivery Tracking Form Utilized by Consultants (%)</i>	<i>File Review Assessed in Assessment Guide (% Yes)</i>	<i>File Review Incorporated in Treatment Plan, when appropriate (% Yes)</i>
Individual	48.0	100.0	100.0
Family	50.0	100.0	100.0
Peer	20.7	93.3	18.8
School	29.6	100.0	56.3
Community	19.5	100.0	31.3

References

- Cash, S. J., & Berry, M. (2003). Measuring service delivery in a placement prevention program: An application to an ecological model. *Administration in Social Work, 27*(3), 65-85.
- Larzelere, R. E., Daly, D. L., Davis, J. L., Chmelka, M. B., & Handwerk, M. L. (2004). Outcome evaluation of Girls and Boys Town's Family Home Program. *Education and Treatment of Children, 27*(2), 130-149.
- Munger, R. L. (1998). *The ecology of troubled children*. Cambridge, MA: Brookline Books.
- Thompson, R. W., Sinisterra, D., North, T., & Castrianno, L. (2001). An evaluation system for community-based family centered services. In C. Newman, C. Liberton, K. Kutash, & R. M. Friedman (Eds.), *The 13th Annual Research Conference Proceedings, A System of Care for Children's Mental Health: Expanding the Research Base* (pp. 363-364). Tampa, FL: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Research and Training Center for Children's Mental Health.

CONTRIBUTING AUTHORS

Stephanie Ingram, B.A.

Research Analyst, Girls and Boys Town National Research Institute, 13603 Flanagan Blvd.
Boys Town, NE 68010, 402-498-3034, fax: 402-964-7150,
e-mail: ingrams@girlsandboystown.org

Richard Munger, Ph.D.

Behavioral Health Supervisor, Buncombe County Health Center, 35 Woodfin Street,
Asheville, NC 28801, 828-250-5264, fax: 828-250-6098,
e-mail: rich.munger@buncombecounty.org

Amy Simpson, M.A.

Site Director, Girls and Boys Town of South Florida, 3111 S. Dixie Highway, Suite 200,
West Palm Beach, FL 33405, 561-366-9400 ext. 356, fax: 561-366-1133,
e-mail: simpsona@girlsandboystown.org

Tanya Shaw, B.S.

Research Analyst, Girls and Boys Town National Research Institute, 13603 Flanagan Blvd.
Boys Town, NE 68010, 402-498-3047, fax: 402-964-7150,
e-mail: shawt@girlsandboystown.org

Ronald W. Thompson, Ph.D.

Director, Girls and Boys Town National Research Institute, 13603 Flanagan Blvd. Boys
Town, NE 68010, 402-498-3102, fax: 402-964-7150,
e-mail: thompsonr@girlsandboystown.org

Using Organizational Data to Create the Essential Context for System Transformation in Child Welfare

**William Deveney
Joanne Nicholson**

Acknowledgements: This work was funded by the Massachusetts Department of Social Services and the W. T. Grant Foundation through a Distinguished Fellowship to the second author. The authors acknowledge the contributions of the MA/DSS CQI team to the development of the model: Ruben Ferreira, Michael MacCormack, and Jan Nisenbaum.

Introduction

“Incorporating new ways of relating to families into our practice, while juggling the emotional and work demands of eighteen or more families...requires... ‘building a bridge while crossing it’” (Commissioner L. H. Spence, Massachusetts Department of Social Services, October 6, 2004).

The President’s New Freedom Commission on Mental Health (2003) recommends transforming mental health care delivery in America. Transformed mental health care, particularly for children, youth and families, requires change, not only in the mental health system, but in the multiple child-and-family-serving systems (e.g., child welfare), that “provide and pay for significant amounts of mental health services, often more than the specialty mental health system” (Huang, et al., 2005, p. 624). State Medicaid spending for foster children approached \$4 billion in 2001; these data do not include Medicaid spending on children who were involved with child welfare agencies but living with their parents (Geen, Sommers, & Cohen, 2005). Foster children use Medicaid-reimbursed mental health services at a rate 8 to 15 times higher than other eligible youth (Geen et al., 2005).

Recommendations for the transformation of mental health care have focused on changing “what” services people receive (i.e., the emphasis on implementing evidence based practices), and “how” and “where” they are provided (e.g., individualized, culturally competent services provided in community-based settings). Recommendations generally focus on speeding up research on treatment and recovery to bridge the gap between science and service (President’s New Freedom Commission, 2003). What is largely missing from the discussion on transformation is the fact that changing the “what,” “how,” and “where” of mental health service provision requires major changes in all of the child-and-family-serving systems, to create organizational contexts and contingencies that encourage, support and sustain these changes. The New Freedom Commission report highlights advances in health technology and information systems that potentially benefit consumers. However, Huang and colleagues (2005) point to the lack of reliable and relevant data and accountability mechanisms to inform system changes, to “guide decision making and quality improvement at both the system and service delivery levels” (p. 624). Quality improvement data and mechanisms have not been brought to bear in the systems transformation process.

A Child Welfare System Transformation Initiative

The Massachusetts Department of Social Services (MA/DSS) has embarked upon a comprehensive system transformation initiative to translate the values of “child-driven,” “family-centered,” “community-focused,” “strength-based,” “committed to diversity and cultural competence,” and “committed to continuous learning” into an active child welfare policy and practice agenda (Massachusetts Department of Social Services, 2006). The learning organization framework (Senge, 1990) has been adopted as a set of principles to guide system transformation, and the shift in organizational context and contingencies essential to implementing and sustaining new practices. A continuous quality improvement (CQI) model is being used as a tool to transform the Massachusetts child welfare system, drawing questions from, providing feedback to, and ultimately shaping the behavior of MA/DSS personnel in the system, managerial, and practice domains.

Using Continuous Quality Improvement Strategies

CQI efforts within human service organizations traditionally provide feedback to managers and staff in the form of data on staff productivity and easily quantifiable client outcomes. In child welfare, traditional federal performance benchmarks include six data measures addressing maltreatment recurrence, maltreatment in foster care, timeliness of adoptions, timeliness of reunifications, placement stability, and permanency for children. Child welfare policy and practice are shaped in large part by these performance benchmarks, particularly because federal funding to states is contingent upon achieving set levels of compliance.

CQI in a learning organization is an interactive, iterative, participatory process that not only reflects change in organizational values, and catalyzes and guides improvements in policy and practice, but depends on change in organizational culture and climate. For example, if the organization is committed to continuous learning, the review process (i.e., the ways in which data are reported, interpreted, and used), must be characterized by learning and reflection (i.e., appreciative inquiry (Hammond, 1996)). If a goal of the organization is to promote strength-based practice with children and families, then strengths must be identified at every level of the organization, with managers, direct care staff and client families. Areas requiring improvement must be identified as well, to set relevant learning objectives. A focus on community and a commitment to cultural competence imply that all stakeholders must be involved in developing and implementing the 'next generation' CQI measures and review process.

The MA/DSS system transformation initiative required a re-framing of the CQI process and traditional benchmarks, to be consistent with the agency's values and supportive of the new way of doing business. The traditional performance benchmarks were expanded to include measures that reflect not only the more typical distal outcomes of child and family functioning and well-being, but also process and proximal measures of practice and service delivery, organizational context, and system functioning that reflect organizational fidelity with the agency's transformation agenda and values.

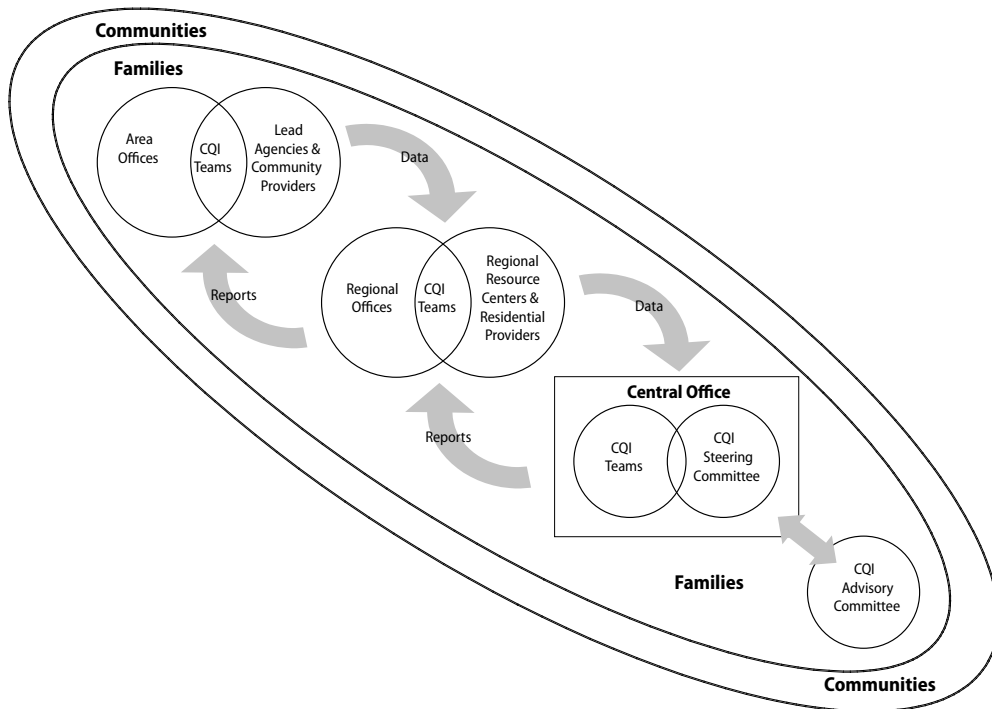
CQI Teams at each structural level of the organization, Area, Region, and Central Offices, will review data to identify areas of success as well as needs for improvement (see Figure 1). Team membership reflects key players at each structural level, including agency, provider, family and foster family, and community representatives. Representatives from the practice, managerial, and system domains of functioning will participate in quarterly (at the Area and Regional levels) and semi-annual (at the Central Office level) Leaning Forum sessions, facilitated by trained leaders, to focus on critical issues identified through on-going CQI activities of the Teams. Sources of data include the FamilyNet state-wide data base; foster care reviews; quality service reviews; reports from specific units, lead agencies and providers; feedback from Area, Regional, and Central Offices; and client satisfaction, family-centered and strength-based care surveys. The CQI strategy will be piloted in the Summer of 2006 beginning in six Area offices.

Discussion

MA/DSS-CQI staff members identified anticipated challenges to implementing a meaningful, useful CQI model that supports both learning and accountability in informal interviews. According to CQI staff, CQI can be viewed by agency field staff as an "unwelcome add-on" when other changes in the organization take a great deal of time and energy. According to one CQI staff member, successful CQI efforts require "getting the right data to the right people, and helping them know how to use it" to support reflection in practice. CQI staff members agreed that a context of trust and cooperation is required, so that feedback is viewed as a learning opportunity, rather than as negative evaluation or criticism. As one staff member suggested, "For CQI to work requires an open process, where people have equal say in providing and responding to feedback, and making recommendations."

System transformation in child welfare has implications for workforce development and professional training. The Child Welfare Institute, a public-academic partnership between MA/DSS and two state university campuses, Salem State College and the University of Massachusetts Medical School, is aimed

Figure 1
The Massachusetts Department of Social Services CQI Model



at supporting system transformation through professional development at all levels. As the MA/DSS learning organization concept unfolds, and as the system evolves to translate the core values into policies and practice, areas for staff training and development, as well as relevant research, are emerging via the CQI process.

References

- Geen, R., Somers, A., & Cohen, M. (2005). *Medicaid spending on foster children*. Child Welfare Research Program, Brief No. 2. Washington, DC: The Urban Institute.
- Hammond, S.A. (1996). *The thin book of appreciative inquiry*. Plano, TX: Thin Book Publishing Company.
- Huang, L., Stroul, B., Friedman, R., Mrazek, P., Friesen, B., & Pires, S. (2005). Transforming mental health care for children and their families. *American Psychologist*, 60(6), 615-627.
- Massachusetts Department of Social Services (2006). *Welcome from Commissioner Harry Spence*. Massachusetts Department of Social Services. Retrieved May 22, 2006: http://www.mass.gov/pageID=eohhs2terminal&&L=4&L0=Home&L1=Government&L2=Departments+and+Divisions&L3=Department+of+Social+Services&sid=Eeohhs2&cb=terminalcontent&f=dss_g_welcome&csid=Eeohhs2
- President's New Freedom Commission on Mental Health. (2003). *Achieving the promise: Transforming mental health care in America. Final Report*. Rockville, MD: DHHS Pub. No. SMA-03-3832.
- Senge, P. M. (1990). *The fifth discipline*. New York, NY: Currency Doubleday.

CONTRIBUTING AUTHORS

William Deveney, Ph.D.

Assistant Commissioner for Professional Development and Continuous Quality Improvement, Massachusetts Department of Social Services, 24 Farnsworth Street, Boston, MA 02210, 617-748-2000, email: william.deveney@state.ma.us

Joanne Nicholson, Ph.D.

Professor of Psychiatry, Center for Mental Health Services Research, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, MA 01655, 508-856-8712, fax: 508-856-8700, email: joanne.nicholson@umassmed.edu