Chapter Six

Wraparound

Symposium

The Wraparound Approach: Theory and Research to Inform Practice

Acknowledgements: This project is supported by several organizations including the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration; the Child, Adolescent, and Family Unit of the Vermont Department of Developmental and Mental Health Services; Vermont Federation of Families for Children's Mental Health; and ORC Macro, Inc.

Chair
John Burchard

Discussants
Barbara J. Burns
Eric Bruns
Karen Mehrtens

Authors
Janet Walker et al.
Eric Bruns et al.
Jesse Suter et al.

Symposium Introduction

John Burchard

This symposium represents a natural collaboration between two research groups interested in better defining and assessing the quality of the team-based individualized service planning (ISP) model—often referred to as *Wraparound*—for children with severe emotional and behavioral problems. Wraparound is one of only a few of the integrated community-based treatments for this population to be cited as promising. However, the grassroots evolution and individualized nature of Wraparound have made description of its specific service processes challenging. As a result, the application of Wraparound in the field has been marked by great variation and a near-absence of rigorous effectiveness testing.

To validate the widespread adoption of the model that has already occurred nationwide—and to promote better service provision using the approach in the future—Wraparound will require both better description of specific administrative and provider practices, and more consistent measurement of the level of adherence to the ideal model. This symposium presents data from a variety of sources, including semistructured interviews with administrators and providers, observations of individualized team processes, and two formal fidelity measures. Results are used to describe: (1) a conceptual framework of necessary administrative and systemic conditions to fully support service delivery via Wraparound; (2) the current state of adherence to Wraparound principles as delivered in the field nationally, including providers' strengths and challenges and predictors of adherence; and (3) an empirically-derived structure of Wraparound, as discovered via confirmatory factor analysis of provider behaviors.

Implementing High Quality Individualized Service/Support Planning: Necessary Conditions at the Team, Organization, and System Levels

Janet Walker, Nancy Koroloff, & Kathryn Schutte

Acknowledgments: This research was conducted with funding from the National Institute of Disability and Rehabilitation Research, United States Department of Education, and the Center for Mental Health Services Substance Abuse and Mental Health Services Administration.

Introduction

In recent years, communities across the country have responded to the multifaceted needs of children with serious emotional and behavioral disorders by using a variety of creative approaches for coordinating, designing, and delivering services. One of these approaches is team-based individualized service/support planning (ISP), which is known by a number of different names, including Wraparound, individualized and tailored care, and child-and-family teams. Together, these ISP approaches have become one of the primary strategies for implementing the system-of-care philosophy for children with the highest levels of need (Faw, 1999).

Achieving high quality implementation of ISP has proven to be difficult (Farmer, 2000; Walker, Koroloff, & Schutte, 2003). In part, this difficulty stems from the fact that while there is agreement about the *values* that should guide ISP, there exists no generally agreed-upon model or manual for ISP *practice*. Wide variation in ISP practice has been observed, and there is concern that many teams do not operate in ways that truly promote the ISP values and vision (Burchard, Bruns, & Burchard, 2002; Walker et al., 2003). Furthermore, practical experience has shown that ISP teams require extensive support from the organization and system levels (i.e., policy and funding context) if high quality is to be achieved and sustained (Clark, Lee, Prange, & McDonald, 1996; Malekoff, 2000; McGinty, McCammon, & Koeppen, 2001; Olson, Lonner, & Whitbeck, 1993). The required support for the ISP process can be hard to come by, given that organizations and systems are locked in their traditional ways of doing business by organizational cultures, inter-agency barriers, funding exigencies, and skepticism regarding the effectiveness of family-centered, strengths-based practice.

As the field has gained experience with the challenges associated with implementing ISP, advocates, practitioners, and other stakeholders in the process have responded by developing a wide variety of supporting tools, procedures, policies, and structures at the team, organization, and system levels. Because each ISP program is embedded in its own local context and subject to local policies, this set of supports is different in each community. The research described here originated from the idea that these different tools, policies, procedures, and structures represent communities' diverse efforts to produce a common set of conditions that allows ISP teams and programs to thrive. But what are these conditions? In this summary, we propose a conceptual framework that describes the conditions that must be in place if high quality ISP implementation is to be achieved and sustained.

Method

The proposed conceptual framework was developed through a process of backward mapping (Elmore, 1979/80; Friedman, 2003). The process began from the basic proposition that quality implementation of the team-based ISP process can be recognized when teams conduct their work using practices that simultaneously promote both team effectiveness (in terms of achieving appropriately ambitious goals), and the value base of ISP (Walker et al., 2003). Teams employing such practices maximize the likelihood that they will create and implement high quality plans that are individualized, family driven, community and strengths based, and culturally competent. The process of backward mapping then leads to the following question: If teams are to develop the capacity to conduct their work in the desired way, what supports are required at the organization and system levels?

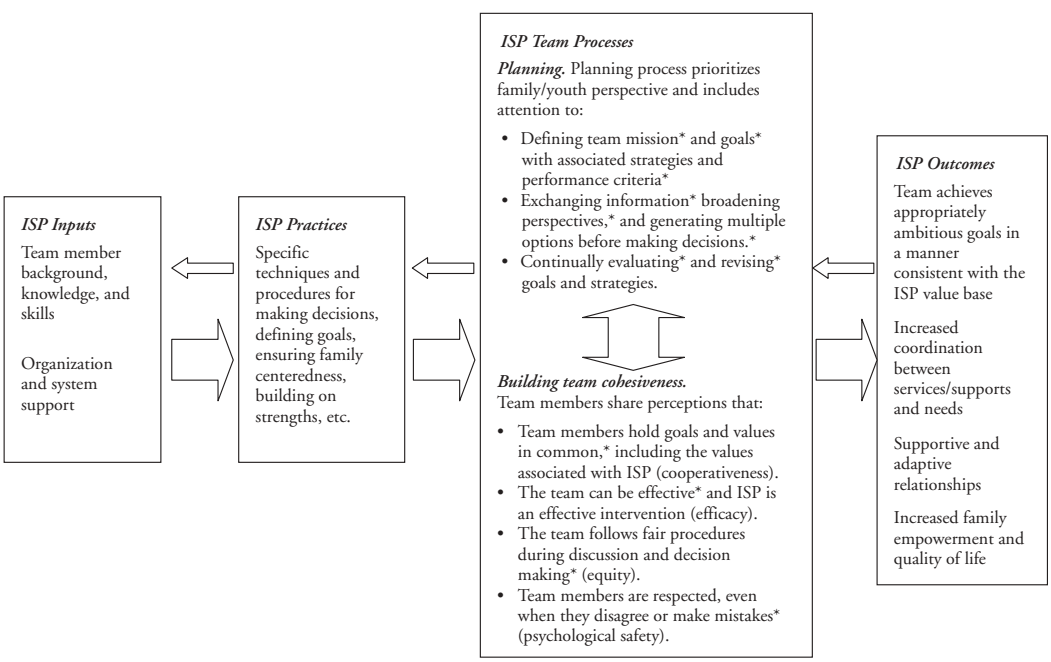
Our research strategy included several sources of information and data. We began with a literature review focusing on: (a) research on effectiveness in teams that are similar to ISP teams (i.e. teams that undertake complex planning tasks, define their own goals, include members with diverse perspectives, and so on); (b) elements of organizational context that promote or impede effective teamwork; and (c) research directly related to collaborative family-provider teamwork in child- and family-serving systems and agencies. We then collected data during semi-structured interviews, conducted in person or by telephone, with stakeholders in the ISP team process. We interviewed a total of 55 people with high levels of experience in ISP at the team, organization, and/or system levels. Included in this number were interviews with 28 team members who had been nominated as experts in ISP practice either by their programs (with the programs themselves having been recognized nationally as exemplary) or by ISP trainers or researchers with experience in a variety of communities around the nation. In addition to these experts, we also interviewed seven experienced team members (including five caregivers and one youth); one trainer; twelve directors of ISP programs; five system-level administrators from the county, regional, or state level; and two researchers with a national perspective on ISP teams. Our interviewees included seven African Americans, two Latinos and three Native Americans.

From these sources of information, we developed a conceptual framework for the necessary conditions associated with high quality implementation of ISP. A document describing this conceptual framework was prepared, and subsequently underwent a three-step process of expert review. First, it was reviewed in a group discussion format by seven experts in the field of children's mental health who represented stakeholders from the service, organization, and system levels. Following revisions, 11 additional reviewers with high levels of expertise regarding ISP teamwork critiqued the document during individual feedback sessions. This group of reviewers represented the service, organization and system perspectives and included family members, practitioners and administrators from diverse backgrounds. Revisions were made, and a series of assessments were developed and added to the document. The assessments examine ISP implementation at the team, organization, and system levels. The document and assessments then underwent another review from the first group, and the assessments were further reviewed during two group feedback sessions with stakeholders from around the country. Final revisions were then made to the document and the assessments (Walker et al., 2003).

Results and Discussion

The literature review provided the basis for an *input-practice-process-outcome* model of effectiveness for ISP teams (see Figure 1); this is a variation of the *input-process-output* type of model that is the most commonly used template in research and theory on team effectiveness (West, Borrill, & Unsworth, 1998). In the proposed ISP model, *inputs* include team member skills, knowledge, and background, as well as organizational and system support. ISP *practices* are specific techniques and procedures that team members intentionally employ as they work to develop the plan and operationalize the ISP value base. Practices include specific techniques and procedures for defining and prioritizing goals, stimulating the exchange of information, making decisions, obtaining feedback, building an appreciation of strengths, ensuring family-centeredness, and so on. Practices take place within a short time frame, though the same practice may occur at frequent intervals.

Figure 1
A Model of ISP Team Effectiveness



*These attributes of process have been linked to team effectiveness in studies across a variety of contexts.

ISP practices are translated into *outcomes* through their impact on two team-level *processes*: the *planning process* and the *process of building team cohesiveness* (i.e. building team-level perceptions so the team members can work together to achieve goals held in common). Figure 1 also describes the two processes in terms of a series of attributes, most of which have been shown to impact effectiveness in numerous team studies across a variety of contexts. These attributes also reflect the special nature of ISP by incorporating elements of the value base. The two team-level processes are complex, and each is continually affected not only by team practices but also by feedback loops that operate both within each process and between the two. This model assumes that success in both processes is required if teams are to be effective in achieving ISP outcomes (e.g. improved fit between services/supports and needs, increased family empowerment). In turn, effective practice is based on a clear understanding of how a given technique or procedure can be expected to impact team-level processes.

The conceptual framework thus begins from the necessary condition for high quality teamwork: team members adhere to a practice model that promotes team cohesiveness and high quality planning in a manner consistent with the value base of ISP. (For a more detailed description of the attributes of such a practice model, see Walker et al., 2003). However, practice alone is not enough to produce desired outcomes. Team members also need appropriate skills and knowledge, and teams require support from the organizations and systems within which they are embedded. Table 1 outlines the conditions that are necessary to support high-quality implementation of ISP. (A detailed description of these conditions is provided in Walker et al. (2003). The conditions are grouped under five themes: Practice model, Collaboration/partnerships, Capacity building/staffing, Acquiring services/supports, and Accountability. At each level—team, organization[1], and system—stakeholders engage in activities that meet the necessary conditions of quality ISP implementation. The framework does not attempt to specify exactly how a program or community should meet each condition, only that there should be some structure, mechanism, policy, or process for doing so. For example, in the area of Accountability, the framework includes the necessary condition that the organization monitors adherence to the value base of ISP; however, this condition may be met in a variety of ways.

Advocates of ISP in many communities seek to ensure the longer-term viability and quality of ISP programs by institutionalizing supporting conditions and arrangements at the organization and system levels. In most cases, this is envisioned as coming about as part of the process to develop a larger, fully integrated system of care. As systems of care continue to develop, advocates of ISP programs may find that the conditions for high quality implementation are met in a more stable and profound way than under any other sort of arrangement. However, making the transition to a system of care is a long process, and our system level interviewees described a tendency for resistance among upper level managers and systems people to increase as they become more fully aware that of the thoroughgoing changes required by a shift to the system-of-care approach. Whether these sorts of barriers can be overcome in many communities is a matter of some uncertainty at this point (Duchnowski, Kutash, & Friedman, 2002).

Conclusion

According to the conceptual framework proposed here, high quality ISP can exist even in the absence of a well-developed system of care. When the necessary conditions are met on a stable basis, high quality ISP implementation can be sustained even where the various child- and family-serving systems are otherwise not well integrated. Conversely, even where systems of care are well developed, the quality of ISP will not be assured unless the necessary conditions are met at each level. System reform, in and of itself, is not sufficient to guarantee high quality of ISP.

[1] *In our framework, we differentiate between two roles that organizations can play relative to teams. The first is as "host," the organization which hires, trains and supervises facilitators. The role is "partner," and organizations act as partners to the ISP process by contributing staff who serve as team members, services and/or flexible funds.*

Table 1
Necessary Conditions for High Quality ISP Implementation

ISP Component	*Team Level*	*Organization Level*	*System Level (Policy And Funding Context)*
Practice Model	I. Team adheres to a practice model that promotes team cohesiveness and high quality planning in a manner consistent with the value base of ISP.	I. Lead agency provides training, supervision and support for a clearly defined practice model. II. Lead agency demonstrates its commitment to the values of ISP. III. Partner agencies support the core values underlying the team ISP process.	I. Leaders in the policy and funding context actively support the ISP practice model.
Collaboration/ partnerships	I. Appropriate people, prepared to make decisions and commitments, attend meetings and participate collaboratively.	I. Lead agency supports team efforts to get necessary members to attend meetings and participate collaboratively. II. Lead and partner agencies collaborate around the plan and the team. III. Partner agencies support their workers as team members and empower them to make decisions.	I. Policy and funding context encourages interagency cooperation around the team and the plan. II. Leaders in the policy and funding context play a problem -solving role across service boundaries.
Capacity building/staffing	I. Team members capably perform their roles on the team.	I. Lead and partner agencies provide working conditions that enable high quality work and reduce burnout.	I. Policy and funding context supports development of the special skills needed for key roles on ISP teams.
Acquiring services/supports	I. Team is aware of a wide array of services and supports and their effectiveness. II. Team identifies and develops family-specific natural supports. III. Team designs and tailor services based on families' expressed needs.	I. Lead agency has clear policies and makes timely decisions regarding funding for costs required to meet families' unique needs. II. Lead agency encourages teams to develop plans based on child/family needs and strengths, rather than service fads or financial pressures. III. Lead agency demonstrates its commitment to developing culturally competent community and natural services and supports. IV. Lead agency supports teams in effectively including community and natural supports. V. Lead agency demonstrates its commitment to developing an array of effective providers.	I. Policy and funding context grants autonomy and incentives to develop effective services and supports consistent with ISP practice model. II. Policy and funding context supports fiscal policies that allow the flexibility needed by ISP teams. III. Policy and funding context actively supports family and youth involvement in decision making.
Accountability	I. Team maintains documentation for continuous improvement and mutual accountability.	I. Lead agency monitors adherence to the practice model, implementation of plans, and cost and effectiveness.	I. Documentation requirements meet the needs of policy makers, funders, and other stakeholders.

References

Burchard, J. D., Bruns, E. J., & Burchard, S. N. (2002). The wraparound approach. In B. J. Burns & K. Hoagwood (Eds.), *Community treatment for youth: Evidence-based interventions for severe emotional and behavioral disorders* (pp. 69-90). New York: Oxford University Press.

Clark, H. B., Lee, B., Prange, M. E., & McDonald, B. A. (1996). Children lost without the foster care system: Can wraparound service strategies improve placement outcomes? *Journal of Child and Family Studies, 5*, 39-54.

Duchnowski, A. J., Kutash, K., & Friedman, R. M. (2002). Community-based interventions in a system of care and outcome framework. In B. J. Burns & K. Hoagwood (Eds.), *Community treatment for youth: Evidence-based interventions for severe emotional and behavioral disorders* (pp. 16-37). New York: Oxford University Press.

Elmore, R. F. (1979/80). Backward mapping: Implementation research and policy decisions. *Political Science Quarterly, 94*, 601-616.

Farmer, E. M. Z. (2000). Issues confronting effective services in systems of care. *Children and Youth Services Review, 22*, 627-650.

Faw, L. (1999). The state wraparound survey. In B. J. Burns & S. K. Goldman (Eds.), *Systems of care: Promising practices in children's mental health, 1998 series: Volume IV. Promising practices in wraparound for children with severe emotional disorders and their families* (pp. 79-83). Washington, DC: Center for Effective Collaboration and Practice, American Institutes for Research.

Friedman, R. M. (2003). A conceptual framework for developing and implementing effective policy in children's mental health. *Journal of Emotional and Behavioral Disorders, 11*, 11-18.

Malekoff, A. (2000). Bureaucratic barriers to service delivery, administrative advocacy, and Mother Goose. *Families in Society: The Journal of Contemporary Human Services, 81*, 304-314.

McGinty, K., McCammon, S. L., & Koeppen, V. P. (2001). The complexities of implementing the wraparound approach to service provision: A view from the field. *Journal of Family Social Work, 5*, 95-110.

Olson, D. G., Lonner, T., & Whitbeck, J. (1993). Individualized tailored care: Cross-system community efforts in Washington State. In K. Kutash, C. Liberton, A. Algarin, & R. Friedman (Eds.), *The 5th annual research conference proceedings: A system of care for children's mental health: Expanding the research base. March 2-4, 1992.* (pp. 247-253). Tampa, FL: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Research and Training Center for Children's Mental Health.

Walker, J. S., Koroloff, N., & Schutte, K. (2003). *Implementing high-quality collaborative individualized service/support planning: Necessary conditions.* Portland, OR: Research and Training Center on Family Support and Children's Mental Health.

West, M. A., Borrill, C. S., & Unsworth, K. L. (1998). Team effectiveness in organizations. In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology* (Vol. 13, pp. 1-48). New York: John Wiley & Sons.

A National Portrait of Wraparound Implementation: Findings from the Wraparound Fidelity Index

Eric Bruns, Jesse Suter, John Burchard, & Kristen M. Leverentz-Brady

This project is supported by several organizations including the Center for Mental Health Services, Substance Abuse and Mental Health Services Administration; the Child, Adolescent, and Family Unit of the Vermont Department of Developmental and Mental Health Services; Vermont Federation of Families for Children's Mental Health; and ORC Macro, Inc.

Introduction

The Wraparound approach for children experiencing severe emotional and behavioral disorders (SEBD) has been cited widely as a promising service delivery option (Burns, Hoagwood, & Maultsby, 1998). Like Multisystemic Therapy (MST; Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 1998) and Treatment Foster Care (TFC; Chamberlain, 2002), Wraparound is an integrated community-based approach that is guided by a set of elements and practice principles, but is administered in an individualized manner depending on the needs of the child and family (Burchard, Bruns, & Burchard, 2002; Burns & Goldman, 1999). However, unlike MST and TFC, there are no nationally recognized standards nor any definitive blueprint or manual to guide service delivery activities. As a result, many of Wraparound's philosophical principles have not been well operationalized into specific provider behaviors. This situation has hindered service delivery and frustrated efforts to fully evaluate the impact of the intervention (Bruns, Burchard, Suter, & Force, in press).

To address this gap, several Wraparound implementation measures have been created that attempt to measure specific observable practices that correspond to adherence to Wraparound's philosophic principles. Data from such measures are critical to researchers and can provide feedback on practice to individual providers (Bond, Evans, Salyers, Williams, & Hea-Won, 2000; Bruns, Burchard, Suter, & Force, in press). Fidelity data can also be used to aid the field as a whole by providing descriptions of service processes across many sites. However, few such studies exist. The current study aims to provide a more comprehensive assessment of practices in the field within the Wraparound approach by presenting implementation data from the Wraparound Fidelity Index (WFI; Bruns, Burchard, Suter, Force, & Dakan, 2003) across a broad cross-section of sites attempting to provide services via the model. The study capitalizes on a dataset of over 400 families from 16 sites in nine states, compiled as part of the WFI validation process. The current paper has three major aims:

- To describe patterns of adherence to the Wraparound model's philosophical principles (WFI Elements), and specific provider behaviors (WFI items) among a national sample of programs attempting to implement Wraparound;
- To describe the extent of variation in adherence across sites; and
- To explore system- and program-level predictors of adherence to the Wraparound principles at the family level.

Method

Measures

The WFI (version 2.1) assesses adherence to the prescribed elements of Wraparound for individual families enrolled in services. The WFI is completed through brief, confidential telephone or face-to-face interviews that assess adherence to 11 elements of Wraparound from the perspectives of caregivers, youth (11 years of age or older), and resource facilitators (case managers). Trained interviewers assign ratings of 0, *low adherence*, 1, *moderate adherence*, or 2, *strong adherence*, for each item, based on responses of interviewees. There are four items per element, resulting in element scores that can range from 0 to 8. Total WFI scores for a respondent are calculated using the mean of all element scores, thus also resulting in scores that range from 0 to 8. Earlier studies of the WFI indicated adequate psychometrics and good construct validity (Bruns, Ermold, & Burchard, 2001), as well as a relationship with relevant outcome variables (Bruns, Burchard, Suter, Force, & Dakan, 2003).

The WFI-Program Administrator form (WFI-PA) assesses the administrative and system characteristics of a program or site implementing services via the Wraparound approach. The WFI-PA is completed via interview with a program administrator or jurisdiction-level administrator, and includes five major sections; each section includes between 3 to 16 items: General Site Information, Capacity and Staff, Interagency Coordination and Funding, Outcome Management and Accountability, and Organizational Adherence to the Wraparound model. Responses to WFI-PA items are collapsed into 10 major domains hypothesized to be associated with the site's ability to provide services via Wraparound. These 10 domains include program duration, program size, resource facilitator caseload, staff turnover, interagency coordination, blended funding, natural supports, strengths-based supports, family-centered supports, and outcome-based service delivery.

Participants and procedure. Participants in this study included resource facilitators, parents, and youth from 404 families enrolled in services through 16 collaborating agencies in nine U. S. states that use the Wraparound approach for service delivery. Youth enrolled in the programs met criteria for serious emotional disturbance, including a DSM-IV diagnosis and impaired functioning that required involvement from multiple service delivery agencies. WFI-PA interviews were administered by phone to program administrators for eight sites in the national WFI sample that collected WFI data for more than 20 families. WFI-PA interviews were conducted by trained interviewers who were part of the Wraparound Research Team.

Results

Variation in fidelity across WFI elements and items. Figure 1 displays mean element scores across the full national WFI sample for each of the three respondent types. As shown, there is considerable variation across element scores, with relatively lower scores for the Youth and Family Team, Community-Based Services, Natural Supports, and Flexible Services Elements. Though data from the three respondent types generally result in similar fidelity scores across the elements, parents and youth generally provide lower fidelity scores for the Community-based, Individualized, and Youth and Family Team Elements.

As a way of investigating the specific provider behaviors that may be barriers to achieving treatment fidelity, Table 1 displays WFI-RF and WFI-P item scores for items that fall > .3 *SD* (a meaningful effect size by Cohen's [1988] convention) below the overall mean for all WFI items for that respondent. Consistent with data presented in Figure 1, parents' responses to WFI items are more likely to identify specific provider behaviors that may be compromising adherence to the Wraparound elements.

Variation in fidelity across sites. Examination of WFI scores across the eight sites revealed Total WFI Scores (mean for all respondents) that ranged from 5.76 to 6.82 (*SD* = 1.18), resulting in standardized scores that differ by nearly 1 SD across sites. Individual respondent scores varied even more widely: scores for the Resource Facilitator sample ranged from 5.81 to 6.94 (*SD* = 1.28), and scores for Parents ranged from 5.66 to 6.81 (*SD* = 1.46).

Association between administrative characteristics and fidelity. To investigate what factors might contribute to higher and lower overall adherence by sites attempting to deliver services via the Wraparound approach, two subsamples were constructed based on total WFI-PA scores. The first subsample consisted of families (*n* = 78) from two sites that featured well-developed program and system infrastructure for only 4 out of 10 WFI-PA constructs, thus appearing distinctly less well-developed across categories assessed via the WFI-PA. For example, these two sites had been delivering services via the Wraparound approach for fewer than three years, had a greater turnover rate among resource facilitators, featured no formal interagency team to oversee functioning of the project, and had no formal mechanisms for ensuring the presence of natural supports on treatment teams nor the consistent assessment of outcomes at a program or individual family level. At the same time, the second subsample of families (*n* = 62) was derived from two sites that were found via WFI-PA interviews to meet criteria for 9 out of 10 WFI-PA constructs, and thus had the best-developed infrastructure.

Table 1
Individual WFI Items on the Parent (P) and Resource Facilitator (RF) Forms with Low Mean Scores

		P form			*RF form*		
WFI Element	***WFI Item***	*N*	*Mean*	*SD*	*N*	*Mean*	*SD*
Youth and Family Team	Is there a friend or advocate of your family or child who is a member of the team?	307	1.02	0.98	289	0.84	0.97
	Is there a representative from the school (or child care provider) who is a member of the team?	304	1.09	0.97	291	1.1	0.96
Community-Based Services	Is the youth attending a regular community school or job training program (or working at a paying job)?	-	-	-	292	1.33	0.94
Strength-Based Services	Does the community help your child get involved with activities in the community?	309	1.12	0.94	-	-	-
	Were the strengths of your community used in the planning or modification of services and supports?	302	1.34	0.88	-	-	-
Natural Supports	Does the team get your child involved with activities he/she likes and does well?	304	1.39	0.84	-	-	-
	Does the team help you receive support from your friends and family?	303	1.27	0.93	-	-	-
	Does the team help your child develop friendships with other youth who will have a good influence on his/her behavior?	301	1.25	0.92	-	-	-
	Does the team replace professional services with support from friends, family, and community organizations?	305	1.14	0.91	289	1.37	0.74
Continuation of Care	Does the team rely mostly on professional services?	306	0.8	0.92	291	0.93	0.90
Collaboration	Has the team helped your family develop or strengthen relationships that will support you when the team has been discontinued?	305	1.33	0.9	-	-	-
	Is it difficult to get different services providers (or agencies) to attend youth and family team meetings when they are needed?	305	1.39	0.82	292	1.43	0.76
Flexible Resources	Is the financing for your child's service and support plan shared by different service providers making the funding of services easier?	273	1.37	0.87	280	1.22	0.88
Outcome-Based	Has the team measured your satisfaction and your child's satisfaction with services in the past 3 months?	306	1.36	0.91	-	-	-
	ALL WFI ITEMS	306	1.66	0.62	292	1.61	0.58

Note: Scores for *P* or *RF* that are not meaningfully lower than the overall mean WFI item scores not displayed.

Figure 1
Mean WFI Scores by Element for Resource Facilitators (*n* = 291), Parents (*n* = 312), and Youth (*n* = 214)

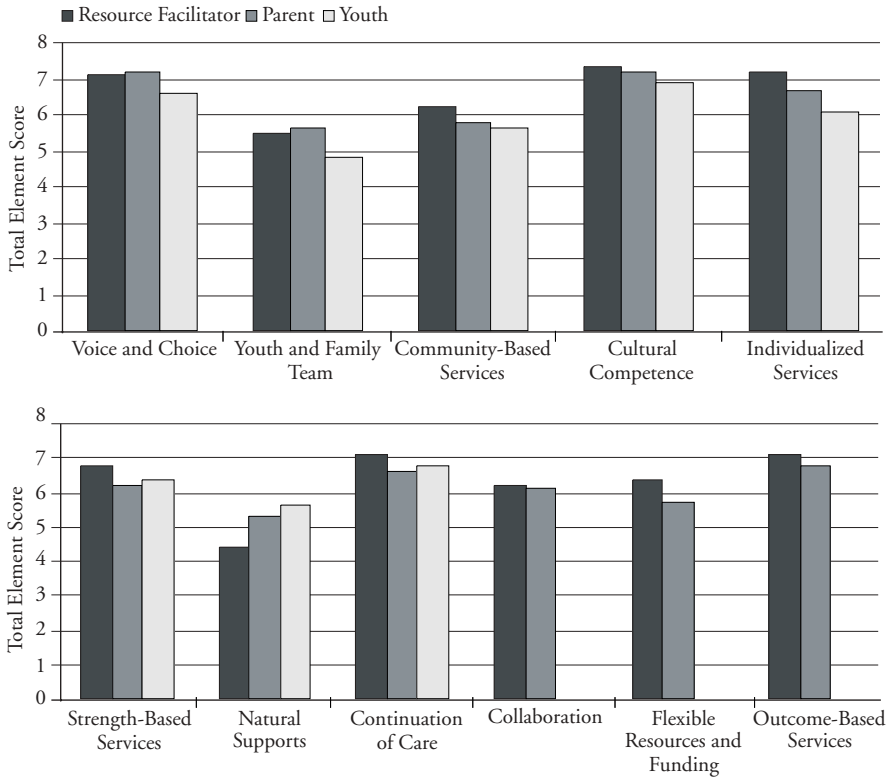


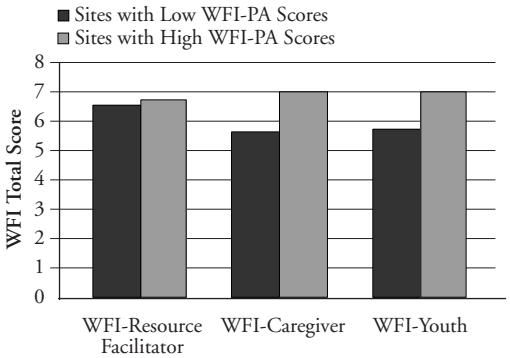
Figure 2 presents mean total WFI scores, by respondent, for the two subsamples. As shown, WFI total scores are lower for all three respondents in the sites with lower WFI-PA scores, and significantly lower for the caregiver and youth forms ($t = 3.61$ and $t = 3.72$, respectively; both $p < .001$). In addition, examination of element scores by respondent found that 15 of 30 scores were significantly different between the two groups (at $p < .05$), and all in the hypothesized direction.

Discussion

Given the relative lack of development of the research base on Wraparound, the lack of a definitive manual for implementation of the approach, and its flexible, family-centered approach to service delivery, it is critical that the patterns and predictors of good adherence to the defined philosophical principles of Wraparound be explored. The current study revealed that there are consistent areas in which providers attempting to implement Wraparound struggle to adhere to the model. WFI data parallel the findings of more qualitative studies (e.g., McGinty, McCammon, & Koeppen, 2001) from systems of care nationally. Common challenges include:

- Failing to incorporate full complement of important individuals on the individualized services team
- Failing to engage the youth in community activities, activities the youth does well, or activities that will allow him or her to develop appropriate friendships
- Failing to use family and community strengths to plan and implement services
- Failing to use natural supports, such as extended family members and community members

Figure 2
Mean Total Wraparound Fidelity Index (WFI) Scores, by Respondent Type, for Sites with High and Low Scores on the Wraparound Fidelity Index - Program Administrator Form (WFI-PA)



- Lack of flexible funds to help implement innovative ideas that emerge from the ongoing team planning process
- Inconsistent outcome & satisfaction assessment

In addition, the current study demonstrates the importance of administrative and system characteristics to maintain fidelity for individual families. Results of multiple regression analyses showed that several aspects of program structure were associated with fidelity, including factors specifically related to the Wraparound philosophy (e.g., flexibility of funding) as well as more general factors (e.g., caseload size). Given that the recent emphasis on evidence-based practices in service delivery has tended to focus on program models while neglecting the investigation of program structures (Anthony, 2003), this is an important finding.

Overall, the current study suggests that providers, trainers, and policy makers nationally may wish to consider the best ways to support programs and systems so that the prominent shortcomings listed above can be overcome. Given the broad-based support for the philosophical principles of the Wraparound approach, and emerging research suggesting adherence to these elements may in fact be related to child and family outcomes (Bruns, Burchard, Suter, Force, & Dakan, 2003), such efforts may be important factors in allowing Wraparound to fully live up to its promise to improve the well-being of families receiving services. In support of this goal, the current study also reinforces the importance of looking at ways to improve program- and system-level supports to providers and child and family teams, such as through the frameworks for improvement described by Walker, Koroloff, & Schutte (2003) in this symposium.

References

Anthony, W. A. (2003). Studying evidence-based processes, not practices. *Psychiatric Services, 54*, 7.

Bond, G. R., Evans, L., Salyers, M., Williams, J., & Hea-Won, K. (2000). Measurement of fidelity in psychiatric rehabilitation. *Mental Health Services Research*, *2*, 75-87.

Bruns, E. J., Burchard, J. D., Suter, J., & Force, M.D. (in press). Measuring fidelity within community treatments for youth: Challenges and strategies. In M. Epstein, K. Kutash, & A. J. Duchnowski,. (Eds.) *Outcomes for children and youth*. Austin, TX: Pro-ED.

Bruns, E. J., Burchard, J. D., & Ermold, J. M. (2001) The Wraparound Fidelity Index: Results from an initial pilot test. 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. 339-342). Tampa, FL: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Research and Training Center for Children's Mental Health.

Bruns, E. J., Burchard, J. D., Suter, J., Force, M. D., & Dakan, E. (2003). Fidelity to the wraparound process and its association with outcomes. In C. Newman, C. Liberton, K. Kutash, & R. M Friedman (Eds.), *The 15th Annual Research Conference Proceedings, A System of Care for Children's Mental Health: Expanding the Research Base* (pp. 419-424) Tampa, FL: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Research and Training Center for Children's Mental Health.

Burchard, J., Bruns, E. J., & Burchard, S. N. (2002). The Wraparound Approach. In Burns, B. and Hoagwood, K. (Eds.), *Community treatment for youth: Evidence-based treatment for severe emotional and behavioral disorders*. Oxford: Oxford University Press.

Burns, B. J., & Goldman, S. K. (1999). *Promising practices in wraparound for children with serious emotional disturbance and their families. Systems of care: Promising Practices in Children's Mental Health, 1998 series, Vol. IV.* Washington DC: Center for Effective Collaboration and Practice, American Institutes for Research.

Burns, B. J., Hoagwood, K., & Maultsby, L. T. (1998). Improving outcomes for children and adolescents with serious emotional and behavioral disorders: Current and future directions. In M. Epstein, K. Kutash, & A. J. Duchnowski (Eds.), *Outcomes for children and youth with behavioral and emotional disorders and their families*. Austin, TX: Pro-Ed.

Chamberlain (2002). Treatment Foster Care. In B. Burns & K. Hoagwood, (Eds.), *Community treatment for youth: Evidence-based treatment for severe emotional and behavioral disorders*. Oxford: Oxford University Press.

Henggeler, S. W., Schoenwald, S. K., Borduin, C. M., Rowland, M. D., & Cunningham, P. B. (1998). *Multisystemic treatment for antisocial behavior in children and adolescents*. New York: Guilford Press.

McGinty, K., McCammon, S. L., & Koeppen, V. P. (2001) The complexities of implementing the wraparound approach to service provision: A view from the field. *Journal of Family Social Work* 5, 95-110.

Walker, J. S., Koroloff, N., & Schutte, K. (2003). *Implementing high-quality collaborative individualized service/support planning: Necessary conditions*. Portland OR: Research and Training Center on Family Support and Children's Mental Health.

Structure of Wraparound: Confirmatory Factor Analysis of the Wraparound Fidelity Index

Jesse Suter, Eric Bruns, & John Burchard

Introduction

The wraparound approach has been classified as a promising comprehensive community-based treatment for serving children with emotional behavioral disorders (Burns, 2002; Burns, Hoagwood, & Maultsby, 1998). With its widespread use across the country (Faw, 1999) and increasing evidence of its effectiveness (for a review see Burchard, Bruns, & Burchard, 2002), the intervention has been accepted widely as a feasible alternative to restrictive residential treatment.

Despite these advances, confusion remains over how best to understand and implement the wraparound approach. Perhaps due to its widespread dissemination without clear model specification, the term *wraparound* has been used to describe interventions that do not adhere to the full set of required service strategies outlined for the wraparound approach. For example, the term has been used broadly to refer to any community-based service, and narrowly to mean programs only with flexible funding, and as a synonym for systems of care (Bruns & Burchard, in press). As a result, it becomes increasingly difficult to evaluate the effectiveness of wraparound when it is implemented differently across agencies.

Recently, researchers have undertaken major efforts to improve the quality and consistency of care provided through the wraparound approach. Key figures in this field met in 1998 to reach consensus on the definition, values, practice principles, and essential elements of wraparound (Burns & Goldman, 1999). While these components are widely accepted, they have never been empirically tested to determine whether they provide the most useful conceptualization of the wraparound structure. The Wraparound Fidelity Index (WFI; Bruns, Suter, & Burchard, 2002) was designed specifically to measure the essential elements identified in 1998. Consequently, the WFI provides an opportunity to empirically examine whether participants' responses reflect the essential elements of wraparound.

The current study examines the theorized element structure of the WFI through confirmatory factor analysis (CFA; Bollen, 1989). We adopted an additive approach to CFA whereby each element was first tested separately to determine whether it provided a good fit to the data, and then those elements that adequately fit the data were included in a final model. By initially examining the elements individually, problematic items or elements could be removed without rejecting the entire model.

Method

Measure. The WFI assesses adherence to the essential elements of wraparound on a family-by-family basis. The interview is completed through telephone or face-to-face interviews that assess fidelity to 11 elements of wraparound from the perspectives of caregivers, youth (11 years of age or older), and resource facilitators (i.e., case managers). Each of the 11 elements is comprised of four items (see Table 1 for sample items). Youth are not asked questions about three elements (Collaboration, Flexible Resources, and Outcome-Based Services) because youth often do not have enough information to be report accurately on them. Earlier studies of the WFI found adequate internal consistency (Bruns et al., 2001) and relation to relevant outcome variables (Bruns, Suter, Force, Burchard, & Dakan, 2003).

Procedure and participants. Participants in this study were interviewed as part of a larger validation project for the WFI. Data for the current study were collected in 16 collaborating agencies in eight U.S. states (Alaska, Arizona, California, Indiana, Missouri, Nebraska, North Carolina, and Vermont). Trained interviewers who were not involved with service delivery administered interviews. Families had been receiving services for at least one month before they were interviewed.

Interviews were conducted with 408 families including: 317 caregivers, 222 youth, and 292 resource facilitators. Families had been receiving wraparound for a mean of 13.85 months (SD = 10.57). Sixty-

four percent of identified youth in the sample were male and 36% were female, with ages ranging from 4 to 19 years (M = 13.03, SD = 3.32). Fifty-five percent of the youth were identified as Caucasian, 16% African-American, 5% Hispanic, 2% Native American, 2% Bi-racial, and 1% Asian/Pacific Islander (racial or ethnic background was not known and/or identified for the remaining 15% of the sample).

Table 1
WFI Elements and Sample Items (Resource Facilitator Version)

Element	*Sample Item*
1 Voice and Choice	Does the parent express his/her opinions even if they are different from the rest of the team?
2 Youth and Family Team	Is there a representative from the school (or child care provider) who is a member of the team?
3 Community-Based Services	Is the youth attending a regular community school or job training program (or working at a paying job)?
4 Cultural Competence	Do people providing professional services understand and respect the family's culture, traditions, lifestyles, and spiritual beliefs?
5 Individualized Services	Has the team produced a written plan of individualized services and supports that meets the youth's needs at home, at school, and in the community?
6 Strengths-Based Services	Does the team get the youth involved with activities he/she likes and does well?
7 Natural Supports	Does the team help the youth develop friendships with other youth who will have a good influence on his/her behavior?
8 Continuation of Care	Do the youth and family believe that in the future services will be there when they need them?
9 Collaboration	Do the professionals and nonprofessionals on the team work together and treat each other as partners?
10 Flexible Resources and Funding	When the team has a good idea for a service or support for the youth, is money easily available to fund it?
11 Outcome-Based Services	Does the team know the frequency of the youth's school attendance (or job or job training attendance if youth is not enrolled in school) since the last team meeting?

Results

Maximum-likelihood CFAs were conducted using AMOS 4.0 (Arbuckle & Wothke, 1999) to test the theorized 11-element structure of the WFI. All analyses were conducted separately for each of the three respondents. To test each element individually, we created separate CFA models for each element (i.e., 11 for caregivers, 11 for resource facilitators, and 8 for youths). Each of these models included a single latent factor (representing the element) and the four items designed to represent that element (see Figure 1 for an example). We used the Chi-square index, comparative fit index (CFI), and root mean square error of approximation (RMSEA) as indices of model fit and all items were tested to see if they loaded significantly on their respective elements (see Table 2). The model for Youth and Family Team could not be estimated due to low correlations among the items. While the model for Community-Based Services did show adequate to good fit across respondents, none of the items were found to load significantly on the element. Specific to resource facilitators, the Collaboration element could not be estimated and no items loaded significantly on Continuation of Care. All other individual-element models were found to provide adequate to good fit to the data, and all other items were found to load significantly on their respective elements. Thus, we eliminated from further analyses two elements for all respondents (Youth and Family Team and Community-Based Services) and two additional elements for resource facilitators (Collaboration and Continuation of Care).

Next, we tested CFA models for each respondent including the elements that provided adequate to good fit to the data from the previous analyses. The model for caregivers included nine elements, the model for resource facilitators included seven, and the model for youths included six. As illustrated in

Table 2
Fit Indices and Factor Loadings for Each Element Model

	Model Fit			*Item Factor Loadings*			
Element	χ^2	*CFI*	*RMSEA*	*A*	*B*	*C*	*D*
Caregiver (*n* = 317, *df* = 2)							
Voice and Choice	0.41	1.00	0.00	0.36	0.61	0.56	0.61
Youth and Family Team	-	-	-	-	-	-	-
Community-Based	3.69	1.00	0.05	ns	ns	ns	ns
Cultural Competence	2.96	1.00	0.04	0.61	0.82	0.51	0.59
Individualized Services	4.67	1.00	0.07	0.62	0.75	0.49	0.57
Strength-Based	4.12	1.00	0.06	0.55	0.71	0.61	0.43
Natural Supports	0.23	1.00	0.00	0.69	0.72	0.65	0.38
Continuation of Care	0.85	1.00	0.00	0.51	0.80	0.70	0.45
Collaboration	7.70*	1.00	0.10	0.34	0.27	0.67	0.62
Flexible Resources	4.65	1.00	0.07	0.40	0.51	0.70	0.69
Outcome-Based	5.83	1.00	0.07	0.45	0.60	0.73	0.58
Resource Facilitator (*n* = 291, *df* = 2)							
Voice and Choice	4.24	1.00	0.06	0.12	0.51	0.65	0.54
Youth and Family Team	-	-	-	-	-	-	-
Community-Based	8.41*	1.00	0.11	ns	ns	ns	ns
Cultural Competence	5.22	1.00	0.08	0.63	0.87	0.52	0.61
Individualized Services	0.41	1.00	0.00	0.49	0.58	0.58	0.32
Strength-Based	0.66	1.00	0.00	0.37	0.28	0.40	0.35
Natural Supports	8.68*	1.00	0.11	0.61	0.46	0.73	0.45
Continuation of Care	0.39	1.00	0.00	ns	ns	ns	ns
Collaboration	-	-	-	-	-	-	-
Flexible Resources	1.92	1.00	0.00	0.15	0.28	0.60	0.89
Outcome-Based	4.09	1.00	0.06	0.33	0.46	0.43	0.29
Youth (*n* = 222, *df* = 2)							
Voice and Choice	4.69	1.00	0.08	0.42	0.58	0.32	0.48
Youth and Family Team	-	-	-	-	-	-	-
Community-Based	0.34	1.00	0.00	ns	ns	ns	ns
Cultural Competence	0.18	1.00	0.00	0.75	0.78	0.59	0.45
Individualized Services	4.23	1.00	0.07	0.70	0.68	0.17	0.49
Strength-Based	7.08*	1.00	0.10	0.71	0.57	0.56	0.45
Natural Supports	2.34	1.00	0.03	0.64	0.61	0.58	0.63
Continuation of Care	4.83	1.00	0.08	0.33	0.45	0.55	0.67

Note. All item factor loadings are significant unless otherwise marked. Dashes indicate elements that could not be estimated through confirmatory factor analysis. CFI = comparative fit index; RMSEA = root mean square error of approximation; ns = not significant.
*$p < .05$

Figure 2 for the resource facilitator model, the four items for each element were allowed to load only on their specified elements and the elements were permitted to correlate with each other. The nine-element caregiver model provided a good fit to the data, $\chi^2(558, n = 317) = 1106.26$, $p < .01$, CFI = .98, RMSEA = .06. Factor loadings for the items ranged from .27 to .76; all were significant. Correlations among the elements ranged from .52 to .93. The seven-element resource facilitator model provided a good fit for the data, $\chi^2(329, n = 291) = 582.31$, $p < .01$, CFI = .99, RMSEA = .05. Factor loadings for the items ranged from .13 to .82, with only one item not significantly loading on Voice and Choice. Correlations among the elements ranged from .01 to .95. Finally, the six-element youth model also provided a good fit to the data, $\chi^2(237, n = 222) = 392.94$, $p < .01$, CFI = .99, RMSEA = .05. Factor loadings were all significant ranging from .28 to .71. Correlations among the elements ranged from .67 to .97.

Discussion

Overall, these analyses provided a test of the structure of the WFI, and by extension, an examination of the essential elements of the wraparound approach. CFAs revealed that the WFI items provided adequate measures of many, but not all of the elements. After removal of the poorly fitting elements, the final models fit the data well and provided some support for the theorized element structure of the wraparound approach.

Despite this support, the theorized 11-element model (Burns & Goldman, 1999) was not fully confirmed by these analyses. We removed two elements (Youth and Family Team and Community Based Services) from the final structural models of all respondents and two additional elements (Continuation of Care and Collaboration) from the resource facilitator model. It is important to note that the removal of these elements does not mean that they play no important role in the wraparound approach. This finding simply means that the responses to the items designed to measure these elements did not hold together to form statistically unique elements. More research is needed to determine why these elements were not supported. The high correlations among some of the elements also raise questions about the theorized 11-element model. While each of the respondents' CFA models fit the data well, perhaps those elements that correlated as high as .97 should be collapsed in future studies.

With the availability of the WFI and other efforts to improve adherence to the theorized components of the wraparound approach, the greatest gains in this literature will likely come from improvements in research design and methodology. First, although our participant demographics appeared relatively similar to other samples of youth receiving community based services (Quinn & Epstein, 1998), it is unclear whether the participants or collaborating agencies are representative of those receiving and providing wraparound. Future research will be necessary to assess the generalizability of these findings and to test whether the element structure differs across diverse groups. Second, the removal

Figure 1

Single Element Model of Voice and Choice

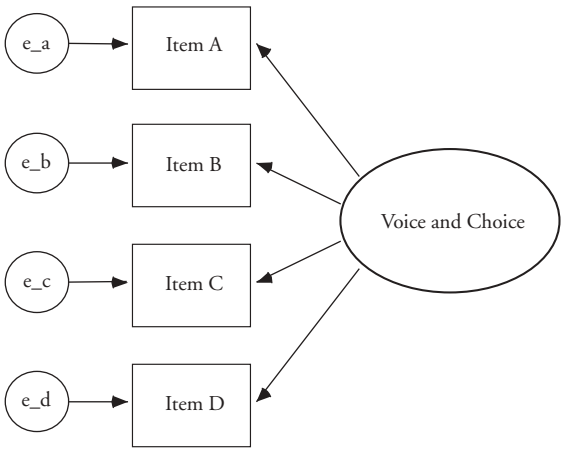
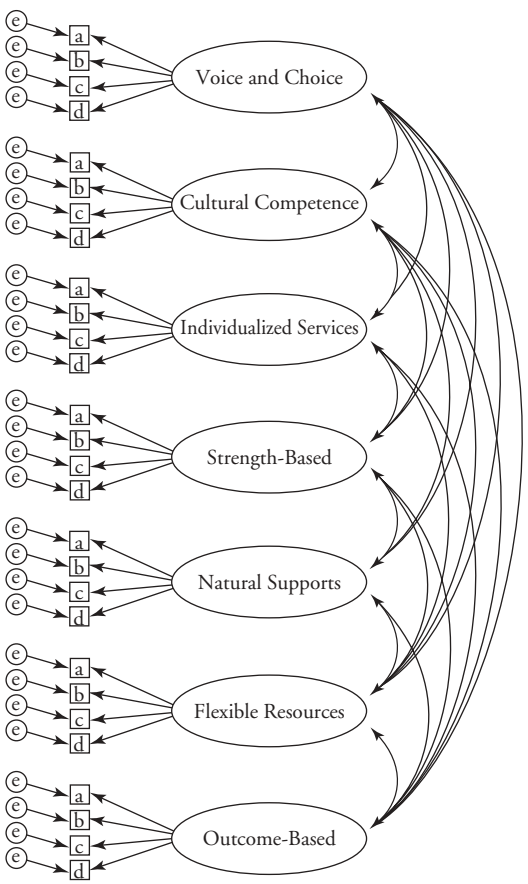


Figure 2

Correlated Elemeent Model for Resource Facilitator



of some elements and high correlations among others suggests that alternative structural models of wraparound should be tested and compared to the current model. Third, while it was an important first step to examine the element models separately for each respondent, future research should include the three respondents in the same model. Such a multitrait-multimethod approach (Dumenci, 2000) allows for tests of convergent and divergent validity not available in the current analyses. And fourth, for a conceptual framework of wraparound to be most useful for training and service delivery, the relation between elements and meaningful youth and family outcomes must be specified.

References

Arbuckle, J. L., & Wothke, W. (1999). *Amos 4.0 User's Guide*. Chicago: SPSS.

Bollen, K. A. (1989). *Structural equations with latent variables*. New York: John Wiley & Sons.

Bruns, E. J. & Burchard, J. D. (in press). Measuring fidelity within community treatments for youth: Challenges and strategies. In M. Epstein, K. Kutash, & A. J. Duchnowski. (Eds.) *Outcomes for children and youth*. Austin, TX: Pro-ED.

Bruns, E. J., Suter, J. C., & Burchard, J. D. (2002). Pilot test of the Wraparound Fidelity Index 2.0. In C. Newman, C. Liberton, K. Kutash, & R. M Friedman (Eds.), *The 14th Annual Research Conference Proceedings, A System of Care for Children's Mental Health: Expanding the Research Base* (pp. 235-238). Tampa, FL: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Research and Training Center for Children's Mental Health.

Bruns, E.J., Suter, J., Force, M., Burchard, J.D., & Dakan, E. (2003). Fidelity to the Wraparound Process and its Association with Outcomes. In C. Newman, C. Liberton, K. Kutash, & R. M Friedman (Eds.), *The 15th Annual Research Conference Proceedings, A System of Care for Children's Mental Health: Expanding the Research Base* (pp. 419-424) Tampa, FL: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Research and Training Center for Children's Mental Health.

Burchard, J. D., Bruns, E. J., & Burchard, S. N. (2002). The Wraparound Approach. In B. Burns and K. Hoagwood (Eds.), *Community treatment for youth: Evidence-based treatment for severe emotional and behavioral disorders*. Oxford: Oxford University Press.

Burns, B. & Goldman, S. K. (1999). Promising practices in wraparound for children with serious emotional disturbance and their families. *Systems of care: Promising Practices in Children's Mental Health, 1998 series, Vol. IV*. Washington, DC: Center for Effective Collaboration and Practice, American Institutes for Research.

Burns, B. (2002). Reasons for hope for children and families: A perspective and overview. In B. Burns and K. Hoagwood (Eds.), *Community treatment for youth: Evidence-based treatment for severe emotional and behavioral disorders*. Oxford: Oxford University Press.

Burns, B. J., Hoagwood, K., & Maultsby, L. T. (1998). Improving outcomes for children and adolescents with serious emotional and behavioral disorders: Current and future directions. In M. Epstein, K. Kutash, & A. J. Duchnowski (Eds.), *Outcomes for children and youth with behavioral and emotional disorders and their families*. Austin, TX: Pro-Ed.

Dumenci, L. (2000). Multitrait-multimethod analysis. In H. Tinsley & S. Brown (Eds.) *Handbook of applied multivariate statistics and mathematical modeling*. London: Academic Press.

Faw, L. (1999). The state wraparound survey. In B. Burns & C. K. Goldman (Eds.) *Systems of care: Promising Practices in Children's Mental Health, 1998 series, Vol. IV*. Washington DC: Center for Effective Collaboration and Practice, American Institutes for Research.

Quinn, K. P. & Epstein, M. H. (1998). Characteristics of children, youth, and families served by local interagency systems of care. In M. H. Epstein, K. Kutash, & A. J. Duchnowski (Eds.) *Outcomes for children and youth with behavioral and emotional disorders and their families*. Austin, TX: Pro-Ed.

Overall Discussion of the Symposium

John Burchard

The developmental state of the Wraparound model presents a number of challenges for researchers. Wraparound clearly has not followed a traditional pathway toward dissemination into the service delivery field, whereby theory and clinical practice lead to a well-defined and manualized intervention that is pilot tested in controlled settings before being ultimately tested in everyday practice settings. In fact, as pointed out by the discussant, Barbara J. Burns, Ph.D., Wraparound is not even best described as an intervention, and has been most consistently understood as a philosophy rather than a well-defined approach. As such, broad-based qualitative research efforts such as those described by Walker, Koroloff, and Schutte that are aimed at describing conditions conducive to high-quality individualized services planning are critical to a better understanding of the Wraparound approach.

Nonetheless, for many providers, the essential elements of Wraparound guide a specific service delivery approach, and for many of these programs, consistent strategies and practices are used in order to apply these principles. As such, much can be learned from assessing Wraparound implementation in the field via a consistent measurement approach such as the WFI. Such research holds the promise of reinforcing the philosophical base of Wraparound, aiding providers in their quality assurance efforts, and, as demonstrated by the second and third paper in the symposium, helping point to policy and funding issues that need to be addressed in the field. Nonetheless, as emphasized by Dr. Burns, it is easy to overstate the utility of such research without first having a common understanding of what is meant by "Wraparound."

CONTRIBUTING AUTHORS

Eric J. Bruns, Ph.D.
Assistant Professor, University of Maryland School of Medicine, Department of Psychiatry, 701 W. Pratt St., Suite 430, Baltimore, MD 21201; 410-328-3522; e-mail: Ebruns@psych.umaryland.edu

John D. Burchard, Ph.D.
Professor, Department of Psychology, University of Vermont, 226 John Dewey Hall, 2 Colchester Ave, Burlington, VT 05405-0134; 802-656-3824; e-mail: JSBurchard@aol.com

Barbara J. Burns, Ph.D.
Professor, Psychiatry and Behavioral Sciences, Duke University School of Medicine, DUMC, Box 3454, Durham, NC 27710; 919-687-4686, fax: 919-687-4737; e-mail: bjb@geri.duke.edu

Nancy Koroloff, Ph.D.
Director of Research, Research and Training Center on Family Support and Children's Mental Health, Regional Research Institute, Portland State University, PO Box 751, Portland, OR 97207-0751; 503-725-8236, fax: 503-725-4180; e-mail: koroloffn@pdx.edu

Kristen M. Leverentz-Brady, M.A.
Graduate Assistant, University of Vermont, 408 John Dewey Hall, 2 Colchester Ave, Burlington, VT 05405-0134; 802-651-1576; e-mail: wrapvt@zoo.uvm.edu

Kathryn Schutte, M.S.
Research Assistant, Research and Training Center on Family Support and Children's Mental Health, Regional Research Institute, Portland State University, PO Box 751, Portland, OR 97207-0751; 503-725-8236, fax: 503-725-4180; e-mail: kmschutt@pdx.edu

Jesse C. Suter, M.A.
Research Assistant, Department of Psychology, University of Vermont, 408 John Dewey Hall, 2 Colchester Ave,. Burlington, VT 05405-0134; 802-651-1576; e-mail: jesse.suter@uvm.edu

Janet Walker, Ph.D.
Associate Director, Research and Training Center on Family Support and Children's Mental Health, Regional Research Institute, Portland State University, PO Box 751, Portland, OR 97207-0751; 503-725-8236, fax: 503-725-4180; e-mail: janetw@pdx.edu

The Relationship Between Fidelity to Wraparound and Positive Behavior Outcomes

Melissa Hagen
Keith Noble
Carl Schick
Marilyn Nolan

Acknowledgement: This research was aided by the Wraparound Vermont Research Team at the University of Vermont (wrapvt@zoo.uvm.edu).

Introduction

Many agencies serving children and families describe their supports and services as being a Wraparound approach. Unfortunately, the term "Wraparound" has seemingly been subject to use as jargon in which elements and principles of Wraparound are poorly understood, loosely applied, and often not fully adhered to. Subsequently, the meaning of Wraparound terminology is diluted and occasionally, poorly understood. At the same time, field research focusing on the effectiveness of the Wraparound approach to supports and services is limited. The very characteristics that make services effective – they are comprehensive, individualized, and flexible – make them more difficult to describe and evaluate (Schorr 1995).

The current study was implemented under routine real world conditions and across a real child welfare-referred youth and family population. It evaluated fidelity to Wraparound and then compared fidelity to Wraparound with the quantity of adaptive emotional and behavioral change from previous to concurrent functioning of the youth served in the Wraparound process and then, to functioning at a six month follow-up. Additionally, youth functioning as impacted by the Youth and Family Team's ability to reach consensus and their ongoing cohesion were examined. This research enhanced the implementation of evidence-based practice in an agency providing individualized community-based supports to youth and families and facilitated on-going monitoring and refinement of program improvement efforts.

Methodology

Participants

Twenty-five families from two geographic areas of Missouri were included in the study sample. Research participants were required to have received Wraparound supports for at least the prior thirty days and to consent to participate in the interviewing process. All families actively participating in the Wraparound process in the identified geographic regions were included as research study participants, and there was no attrition from the initial data collection to the six-month follow up. Descriptive data collected on youth and their families included demographics such as youth age, gender, placement history, primary diagnosis, and custody status and goal of supports for the family.

Youth age ranged from seven to eighteen, with a median age of 12 and mode of 15. Gender composition was 74% male. Placement history for participating youth ($N = 25$) included 33 psychiatric hospitalizations, 18 residential placements, and 69 foster home placements. Multiple disruptions of foster home placements were experienced by these youth. Primary diagnoses for youth were 28% Post Traumatic Stress Disorder, 16% Pervasive Developmental Disorder, 16% Bipolar Disorder, 12% Oppositional Defiant Disorder, 8% Conduct Disorder, 8% Schizophrenia, and 4% each of Depression, Impulse Control, and Psychosis NOS. Custody status was 60% lived with adoptive parents, 36% were in state custody, and 4% lived with their biological family. The primary goal of Wraparound supports for the twenty-five families and youth were 60% adoption stabilization, 20% successful adoption, 16% successful reunification with biological family, and 4% biological family stabilization.

Measures

Two instruments were used to measure Wraparound fidelity and behavior outcomes. Wraparound fidelity was measured with the Wraparound Fidelity Index, Version 2.1 (WFI; Suter, et al., 2001).

Youth emotional and behavioral functioning was measured with the Weekly Adjustment Indicator Checklist (WAIC; Burchard & Bruns, 1993). The WFI is an empirically based, objective assessment tool which determines the extent of adherence to Wraparound philosophy via structured interviews of youth, parents, and Wraparound resource facilitators. The WFI yields a numerical score, referred to as a total fidelity score, ranging from 1 to 8, with 1 indicating low adherence to wraparound philosophy and 8 indicating high adherence to wraparound philosophy. The WAIC measures weekly occurrence of twenty-three forms of severe emotional and behavioral challenge considered to be critical contributors to placement disruption. The WAIC yields a numerical score in which the higher the number, the more compromised was behavioral functioning. Both instruments were developed by researchers at the University of Vermont.

Procedures

WAIC behavioral functioning data was collected at three points in time: first, as a retroactive measure of behavioral functioning immediately prior to beginning Wraparound supports; second, as a concurrent measure during the Wraparound Fidelity Index interviews; and third, as a six month follow-up to the concurrent WAIC scores. Concurrent and follow-up WAIC data were provided through parent completion of WAIC forms. While most pre-Wraparound WAIC data was provided by parents, resource facilitators completed WAIC forms for instances in which foster parents did not have direct knowledge about prior behavioral functioning. Three raw score adjustments were made to WAIC data to facilitate data analysis: use of either/or approach to competing questions of school attendance and vocational involvement, elimination of two non-quantitative questions, and conversion of four negative-reversal checklist items. After adjustments were made, item scores were added together to result in a converted raw score in which higher numbers indicated greater compromise in functioning.

WFI data were collected at a single point in time during the research study process. Consistent with WFI directives, all youth eleven years of age and older, all parents, and involved resource facilitators participated in a structured interview. WFI interview responses were summarized into a Total Fidelity Score indicating overall adherence to Wraparound philosophy.

Analysis

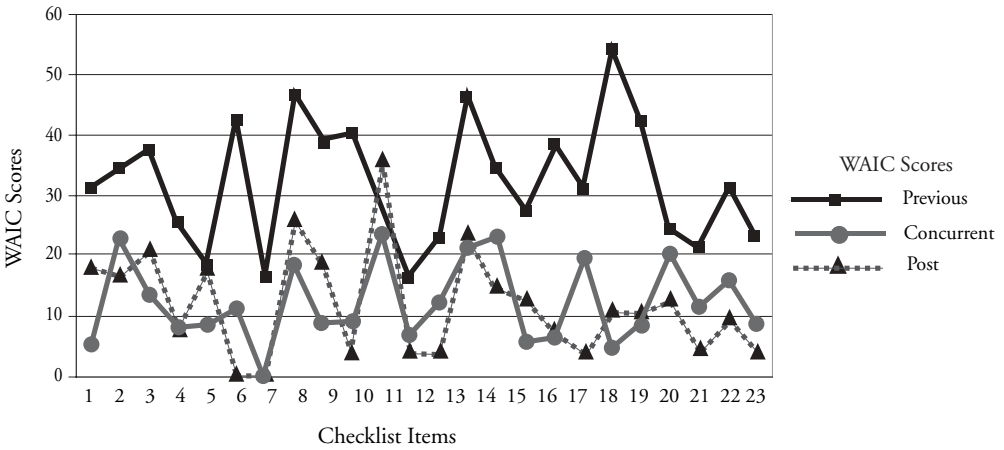
A *t*-test for correlated samples compared previous and concurrent WAIC scores. One subject with extreme outlying scores (i.e., a subject demonstrating dramatic improvement from extremely challenging behavior to extremely positive behaviors) was eliminated from the analysis in order to minimize skewing of results, resulting in comparison of 24 pre-Wraparound and 24 Wraparound-concurrent WAIC scores.

Results

Results of WFI interviews indicated face-valid adherence to the elements and philosophy of Wraparound supports. WFI total fidelity scores were as follows: Resource Facilitator interviews ($N = 25$), X = 7.29, $SD = 1.26$; Parent Interviews ($N = 23$), X = 7.36, $SD = 1.17$; Youth Interviews ($N = 16$), X = 7.50, $SD = .81$. Elements of Wraparound rated as 7.40 or above included *Voice and Choice*, *Community-Based Services*, *Cultural Competence*, *Individualized Supports*, *Strength-Based Supports*, *Continuity of Care*, *Collaboration*, and *Outcome-Based Services*. Relative weaknesses included *Youth and Family Team* (6.72), *Natural Supports* (6.16), and *Flexible Funding* (5.64). Weaknesses become interpretively important in the conclusion section.

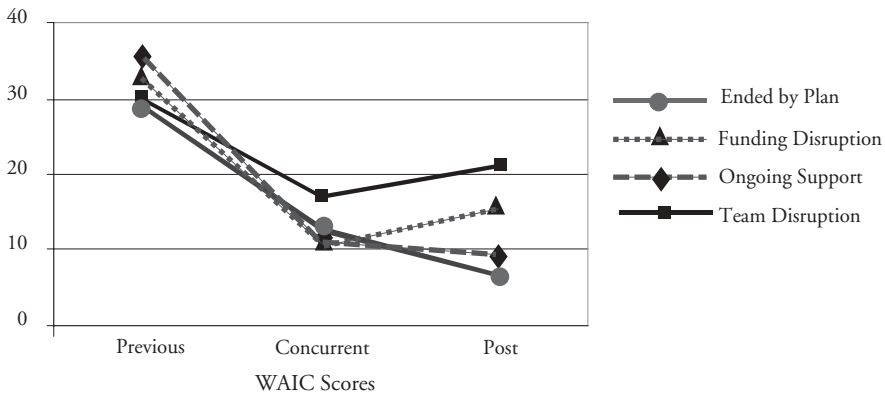
The results of the correlated samples *t*-test comparing pre- and concurrent-Wraparound behavioral functioning were significant at the $p < .0001$ level, with a *t*-value of –8.4320, $t(24) = -8.4320$, $p < .0001$. Post-study WAIC scores provided a similar picture of functioning for the study group as a whole, but with critical trends of functioning being strongly associated with team process during the six month period of time after the research study was completed (see Figure 1).

Figure 1
WAIC Scores Associated with Wraparound



Four clear groups emerged from the original study group: those whose Wraparound supports were ongoing ($N = 8$), those whose Wraparound supports were ended by plan according to the team ($N = 7$), those whose Wraparound supports were disrupted by funding cuts ($N = 6$), and those whose Wraparound supports experienced team disruption ($N = 3$). Ultimately, in situations where supports were ended according to plan, all of these youth and their families not only sustained their progress but continued to demonstrate improvement after the Wraparound process was completed. In situations where supports were ongoing, there was a mixed presentation of progress and challenge with the overall picture portraying steady progress being made. In situations where Wraparound supports were disrupted by funding cuts, Youth demonstrated a clear decline in functioning afterwards. Those youth whose support teams were unable to maintain team cohesion and/or became overwhelmed with the crisis situations fared the worst and demonstrated the most significant decline in functioning. Important to note is that none of these trends were dependent upon previous functioning and seemed to be strongly associated with the team process (see Figure 2).

Figure 2
Six Month Follow-Up:
The Impact of Team Disruption and Funding Cuts



Discussion

Twenty-five youth and families were identified as participating in the Wraparound approach for at least 30 days. All youth had a history of frequent placement disruptions and experienced a range of primary diagnoses consistent with severe emotional disturbance. A high degree of fidelity to the Wraparound approach was validated using the Wraparound Fidelity Index. Presence of 23 behaviors and emotions were measured using the WAIC prior to, concurrent with, and following the Wraparound process. Youth as a whole made significant behavioral improvement from pre-Wraparound to Wraparound-concurrent functioning, and no single Youth demonstrated worsening of functioning. The six-month follow-up using the WAIC revealed four clear clusters of functioning seemingly associated with quality of the team process. Positive outcomes are associated with the youth and family team's ability to reach consensus on decisions and maintain cohesion during difficult times. Negative outcome is associated with lack of team consensus and cohesion, especially in the face of crisis situations.

Despite the small sample size, this applied research provides evidence of positive change and maintenance of change in the behavioral and emotional status or problem behavior for youth and families when the Wraparound approach is implemented. We believe implementation of Wraparound and fidelity to the process may well be a more accurate predictor of outcomes than is the youth's previous level of behavioral and emotional functioning. The results of this study additionally suggest that agencies implementing Wraparound can only achieve stable youth and family outcomes post intervention with careful attention to the team process and the skill level of team facilitators, their training, and supervision

References

Burchard, J., & Bruns, E. (1993). *A user's guide to the weekly adjustment indicator checklist: Vermont system for tracking client progress* (first edition). Burlington: University of Vermont, Department of Psychology.

Schorr, L., Farrow, F., Hornbeck, D., & Watson, S. (1995). *The case for shifting to results-based accountability with a startup list of outcome measures.* Washington, DC: Center for the Study of Social Policy.

Suter, J., Force, M., Ermold, J. Bruns, E. Wimmette, J., & Burchard, J. (2001). *A user's manual to the wraparound fidelity index (version 2.1).* Burlington: University of Vermont, Department of Psychology.

CONTRIBUTING AUTHORS

Melissa Hagen, Psy.D.
Principal Investigator, Alternative Opportunities, 1208 Porter Wagoner Blvd., Suite 4, West Plains, Missouri 65775; 417-257-2208, fax: 417-257-2244, e-mail: melissa.hagen@whitedogllc.com

Keith Noble, Ph.D.
Co-Principal Investigator, Alternative Opportunities, 222 East Water Street Springfield, Missouri 65775, 417-869-8911, fax: 417-869-1625, e-mail: keith.noble@whitedogllc.com

Carl Schick, M.Ed.
Co-Principal Investigator, Alternative Opportunities, 61 NE 231 Road, Warrensburg, Missouri 64093, Phone: 660-429-2775, fax: 660-429-1694, e-mail: cschick@iland.net

Marilyn Nolan, L.C.S.W.
Chief Executive Officer, Alternative Opportunities, 222 East Water Street, Springfield, Missouri 65806, Phone: 417/869-8911, fax: 417-869-1625, e-mail: marilyn.nolan@whitedogllc.com

A Cost and Satisfaction Study of the Wraparound Process

Ralph A. Brown
Joanne Loughlin

Acknowledgements: The Ontario Ministry of Community, Family, & Children's Services funded this study. The authors wish to acknowledge Eric Duku and Michael Boyle, Ph.D., Canadian Centre for the Studies of Children at Risk McMaster University, Hamilton, Ontario, Canada for their assistance with the growth curve analyses.

Introduction

The study's purpose was to evaluate the effectiveness of the Wraparound Process (WP) in eight communities in the province of Ontario, Canada. The study contributes to the wraparound evaluation literature with its quasi-experimental design. Specifically, the researchers hypothesized that, compared to traditional services, the WP is more effective at: (a) improving child psychosocial and mental health functioning, (b) reducing the number of days in out-of-home placements, (c) helping families achieve their goals, (d) providing parents with greater satisfaction with services, and (e) reducing costs. For descriptions of the wraparound process see Brown and Debicki (2000); Brown and Loughlin (2000), VanDenBerg (1993), and VanDenBerg and Grealish, (1996).

Method

Participants were families with children (0-18 years of age) with complex behavioral and emotional needs. Each community's Community-based Teams, comprised of service providers and volunteers, in consultation with the researchers identified children who were eligible for wraparound. Eligibility consisted of having exhausted community resources and WP families demonstrating a willingness to participate in the WP and an understanding of the principles and critical elements of wraparound. All Community Teams provided and matched in consultation with the researchers comparison (CG) families who were eligible for WP by matching WP children with CG children with similar characteristics. The matching criteria included: age range, gender, geographic location, families receiving (or not receiving) social assistance, time of referral (within a 3-month period), and children who were at risk of out-of-home placement. Communities matched children on the basis of having at least three of the following characteristics: acting out at home, emotional problems at home, relationship problems at home, being described as defiant, and acting out at school.

For eligibility in the study, WP families conveyed a willingness to participate in the WP and an understanding of the principles and critical elements of the wraparound process. The comparison group did not participate in the WP, but received one or a combination of traditional services.

Dependent Measures

Three standardized instruments measured children's behavior and families' circumstances over the previous three months: (a) the Behavioral and Emotional Rating Scale (BERS; Epstein & Sharma, 1998) for child and youth capacity; (b) the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges & Wong, 1996; Hodges & Wong, 1997) for child psychosocial functioning; and (c) the Restrictiveness of Living Environments (ROLES; Hawkins, Almeida, & Reitz, 1992) for level of out-of-home placement. In addition, the researchers developed instruments to identify formal and informal services received, parents'/caregivers' and children's goals, parents'/caregivers' and children's satisfaction in achieving their goals, and wraparound adherence or fidelity.

Results

The study began with 362 families (WP, n = 217; CG, n = 145), and gradual attrition resulted in 247 families remaining (WP, n = 147; CG, n = 100). There was a similar proportion of dropouts

(WP, *n* = 70, 32%; CG: *n* = 45, 31%). At baseline, the WP and CG groups were similar, with no significant differences between family demographics and outcome measures. The baseline scores on the outcome measures indicate that both groups of children had similar challenging and complex needs.

Differences between the WP and CG groups were analyzed with growth curve analysis (Rabash, Brown, Healy, Cameron, and Charlton, 2001). There were no statistical differences over time on the CAFAS, BERS, and ROLES. However, there were significant findings on parent' reports of success in achieving goals, and the parents' overall satisfaction with services received (see Table 1). For example, at Time 2, WP parents rated the WP as more helpful, on a 5-point scale (1 = *not at all helpful*, 5 = *extremely helpful*), in achieving goals one and two than did the CG parents who experienced traditional services. The WP families maintained this difference over time. At Time 2, wraparound parents were also significantly more satisfied, on a 5-point scale (1 = *not at all helpful*, 5 = *extremely helpful*), than were CG parents with services overall, and maintained this difference was maintained over time (see Tables 1 and 2).

Table 1
Estimates of Outcome Measures at Baseline, 3 months, 6 months and 9 months by Group

	Baseline (Time 1)		*3 month (Time 2)*		*6 month (Time 3)*		*9 month (Time 4)*	
Outcome	CG	WP	CG	WP	CG	WP	CG	WP
BERS	86.735	87.559	88.378	89.269	90.021	90.979	91.664	92.689
CAFAS	87.599	88.569	77.69	77.98	67.781	67.391	57.872	56.802
ROLES	18.052	16.796	18.123	17.656	18.194	18.516	18.265	19.376
Goal 1 Achieved			2.848	3.336	3.086	3.547	3.324	3.758
Goal 2 Achieved			2.747	3.227	2.928	3.356	3.109	3.485
Helpfulness			3.156	3.736	3.263	3.941	3.37	4.146

Table 2
Estimated Coefficients of the Terms in the Multilevel Model
Entries are Estimate (*S.E.*)

Outcome	*Cons*	*time*†	*interv*††	*intertime*†††
BERS	86.735 (1.164)	1.643 (0.490)*	0.824 (1.337)	0.067 (0.633)
CAFAS	87.599 (3.395)	-9.909 (1.533)*	0.970 (3.845)	-0.680 (1.927)
ROLES	18.052 (2.366)	0.071 (1.166)*	-1.256 (2.732)	0.789 (1.449)
Goal 1 Achieved	2.848 (0.163)	0.238 (0.095)*	0.488 (0.187)*	-0.027 (0.115)
Goal 2 Achieved	2.747 (0.172)	0.181 (0.102)	0.480 (0.197)*	-0.052 (0.121)
Helpfulness	3.156 (0.144)	0.107 (0.081)	0.580 (0.163)*	0.053 (0.098)

* $p <, 0.05$
† Time: 0 = baseline, 1 = 3 months, 2 = 6 months, 3 = 9 months
†† Interv: 0 = comparison, 1 = wraparound
††† Intertime: intervention by time interaction

Examples using BERS:
Equation for Comparison group: BERS = 86.735 + (1.643 * time)
Equation for Wraparound group: BERS = (86.735 + 0.824) + ((1.643 + 0.067) * time) = 87.559 + (1.710 * time)

Fidelity

To address fidelity— i.e. if wraparound was being delivered as intended—after baseline, WP parents rated whether the WP reflected the principles and critical elements of the wraparound philosophy. Using paired samples *t*-tests, five elements demonstrated significant differences between Times 2 and 4 (see Table 3). In addition, members of Community Teams reviewed the Child and Family Teams' wraparound plans, and rated whether the plans contained evidence of the principles and critical elements of the WP after Times 2 and 4 (see Table 3). Mean ratings ranged from 3.9 to 4.8, indicating that the Community Team members were satisfied that the plans were reflective of the WP philosophy (see Table 4).

Table 3
Wraparound Family Feedback Form

	T2 (n=81)	*T3 (n=81)*	*T4 (n=81)*	*Differences between T2 & T4*
	Mean	*Mean*	*Mean*	*p value*
1. How helpful was the WP to you?	3.38	3.51	3.52	.02*
2. How helpful was the WP to your family?	3.17	3.38	3.48	.001*
3. How helpful was the WP to the family members about whom you were most concerned?	3.12	3.38	3.34	.04*
4. Did the action plan meet your family's needs?	3.22	3.21	3.35	
5. Did the action plan match your family's strengths?	3.22	3.27	3.35	
6. Did you feel informed of your role?	3.19	3.33	3.50	.01*
7. Were you encouraged to add to your family's strengths list?	3.27	3.36	3.30	
8. Did you have a significant role in developing an action plan?	3.51	3.64	3.63	
9. Were action plans realistic and feasible for you and your family?	3.41	3.49	3.51	
10. Did the plans take your cultural values into account?	3.45	3.57	3.60	
11. Did the CFT change the plans with you?	2.93	3.26	3.28	
12. Were services and supports provided within your community?	3.26	3.38	3.35	
13. Did the WP follow your family through crisis and change?	3.01	3.36	3.40	.02*
14. Would you participate in the WP in the future?	3.74	3.75	3.40	
15. Would you suggest that other families participate in the WP?	3.80	3.73	3.70	

* Denotes significant differences between Time 2 and Time 4 (Paired samples t-tests).

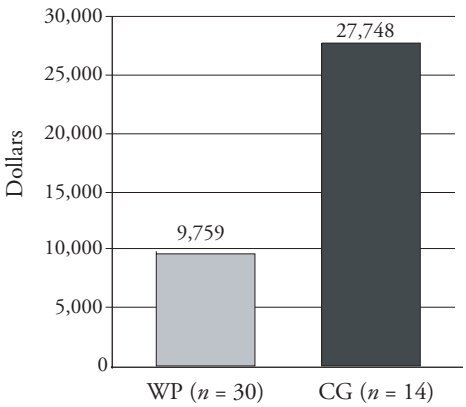
Table 4
Wraparound Plan Reviews

		N	*Mean*
1.	Community Ownership	46	4.3
2.	Community Based	46	4.4
3.	Individualized	47	4.5
4a.	Strength-Based	47	4.4
4b.	Strength-Based	47	4.4
5.	Family Access, Voice, Ownership	47	4.8
6.	Collaborative	47	4.2
7.	Informal Resources or Community Support	44	4.1
8.	Access to Flex Funds	33	4.4
9.	Unconditional Support	47	4.4
10.	Measurable Outcomes	46	3.9
11.	Inclusive	46	4.4
12.	Safety	38	4.2

Costs

Children and families received many formal and informal services. Because it was challenging to calculate the frequency of every service, the researchers calculated only per diem costs of all out-of-home placements over the nine-month period of the study. Communities obtained per diem rates of facilities used by 44 out of 92 children. Mean costs for these children (n = 44) were significantly less for the WP children ($9,175.30) when compared to the CGs ($27,748.00) out-of-home placements (see Figure 1). Given that the WP children spent about the same amount of time in out-of-home care as did the CG children, WP placement types were significantly less costly. The WP children spent more time in foster care and group homes, whereas the CG children spent proportionally more time in residential treatment and young offenders' facilities.

Figure 1
Mean Costs Out-of-Home Placements



$p < 0.007$

The WP children spent 83% of their out-of-home care days in foster care and group homes, whereas the CG children spent 65% of their out-of-home care days in custody, detention and residential treatment, and only 30% of their time in foster care and group homes. The greater proportion of CG children who spent time in more restrictive out-of-home placements may explain the higher costs of out-of-home facilities for CG children.

Discussion

A strength of this study was the communities' collaboration with the researchers and agencies to match the WP and CG groups; this collaboration is evidenced by similarity in the groups' demographic characteristics and assessment scores at intake. The scores on the BERS, CAFAS and ROLES suggest that both groups of children entered the study with complex and challenging needs. Given this context, it would be a high expectation to witness significant improvements for these children over only nine months. It is important to recognize the greater impact and satisfaction that WP families perceived compared to CG families. These findings warrant further exploration, qualitatively and quantitatively, of the WP families' perceptions of the positive regard they had for the Wraparound interventions.

Based on the total scores of the standardized instruments employed, the WP and CG children and families did not experience significantly different behavioral improvements. However, based on a comparison of average out-of-home case costs, the findings suggest that the WP may be two-thirds less expensive than traditional services. The WP children spent about the same amount of time in out-of-home care as did the CG children, but their placement types were significantly less costly. A limitation of this study, however, is that only out-of-home placement per diem costs were analyzed.

There are several possible interpretations for the lack of differences between the WP and CG groups' scores on the BERS, CAFAS, and ROLES. For example, discussion of the concepts of strength-based planning and service delivery has increased in frequency throughout Ontario as wraparound training reaches more practitioners. It is possible that some practitioners receiving this training provided strength-based services to the CG. Also, historically, some practitioners have included strength-based approaches with their clients (Brown, 2000; Brown & Debicki 2000). Given this context, service providers may have been working with the two groups within a similar philosophical framework. Thus, the indirect influence that treatment philosophies central to WP may have had on traditional interventions may contribute to the lack of differences revealed by the standardized outcome measures.

Second, the standardized instruments were child-specific and measured the functioning of a single identified child per participating household. Yet for many families, other children within the family were

also experiencing challenges that were as complex and problematic as those of the child participating in the study. Since wraparound is a process that addresses the families' needs as a whole, it is possible that the instruments did not capture other holistic impacts of the WP. Community-based services, such as wraparound, need to include family measures that may be associated with evaluations of outcomes (Helflinger, Northrup, Sonnichsen, & Brannan, 1998).

Conclusion

Future studies should consider measuring fidelity for wraparound services. It is critical to assess the precise nature of services that WP families receive and to ensure, given the individualized nature of services, that there is some assurance of consistency in the nature of interventions (Malysiak, 1998). Although the wraparound field is becoming more advanced in measuring fidelity, this was not necessarily the case when the study began. See Bruns, Burchard, Sutter, and Leverentz-Brady (2003); Bruns, Burchard, Sutter, Force, & Dakan (2002); Bruns, Burchard, and Ermold, (2001); Bruns, E., Suter, J., & Burchard, J. (2001); Epstein et al. (1998); Force, Suter, Burchard, Bruns, et al. (2001); Rast, Peterson, Mears, and Earnest (2003); and Toffalo (2000); for discussion on efforts to measure wraparound fidelity.

Finally, costs were based solely on out-of-home placements. Future research should determine costs associated with non-institutional care (e.g., family and individual interventions). The Fort Bragg study provides a model for identifying and calculating costs from outpatient services to intermediate services (Bickman et al., 1995), and future wraparound evaluations should consider measuring costs in the detailed manner observed by Bickman and colleagues.

References

Bickman, L., Guthrie, P. R., Foster, E. M., E., Lambert, W., Summerfelt, W. T., Breda, C. S., & Heflinger, C. A. (1995). *Evaluating managed mental health services: The Fort Bragg experiment*. New York: Plenum Press.

Brown, R. A. (2000). The wraparound process. In P. Lehman & N. F. Coady, (Eds.), *Theoretical perspectives in direct social work practice: An eclectic-generalist approach* (347-365), New York: Springer Publishing.

Brown, R. A., & Debicki, A. (2000). The wraparound process: Strength-based practice. In M. Callahan, S. Hessle, & S. Strega (Eds.), *Valuing the field: Child welfare in an international context* (81-97) Hampshire, England: Ashgate Press.

Brown, R. A., & Loughlin, J. (2000). *Final report of the study: An evaluation of the effectiveness of the wraparound processes in the development of a system of care*. Toronto, Ontario: The Ontario Ministry of Community & Social Services.

Bruns, E. J., Burchard, J. D., & Ermold, J. M. (2001). The Wraparound Fidelity Index: Results from an initial pilot test. In C. Newman, C. Liberton, K. Kutash, & R. Freidman (Eds.), *The 13th Annual Research Conference Proceedings: A system of care for children's mental health: Expanding the research base*. (pp. 339-342). Tampa: University of South Florida.

Bruns, E. J., Burchard, J., Sutter, J., Force, M. D., & Dakan, E. (2002). Fidelity to the wraparound process and its association with outcomes. In C. Newman, C. Liberton, K. Kutash, & R. Freidman (Eds.), *The 15th Annual Research Conference Proceedings: A system of care for children's mental health: Expanding the research base*. (pp. 419-423). Tampa: University of South Florida.

Bruns, E. J., Burchard, J., Sutter, J., & Leverentz-Brady, K. (2003, March). *A national portrait of wraparound implementation: Findings from the Wraparound Fidelity Index*. Paper presented at the 16th Annual Research Conference, A System of Care for Children's Mental Health: Expanding the Research Base.

Bruns, E., Suter, J., & Burchard, J. (2001). Pilot test of the Wraparound Fidelity Index. Retrieved: http://www.uvm.edu/~wrapvt/Florida2001/sld001.htm

Epstein, M. H., Jayanthi, M., McKelvey, J., Frankenberry, E., Hardy, R., Dennis, K., & Dennis, K. (1998). Reliability of the observation form: An instrument to measure the wraparound process. *Journal of Child and Family Studies, 7*, 161-170.

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

Force, M., Suter, J., Burchard, J., Bruns, E., & The Wraparound Vermont Research Team (2001). *Wraparound Fidelity Index 2.1* Department of Psychology, University of Vermont. Retrieved: http://www.uvm.edu/~wrapvt/Sample%20Report.pdf

Hawkins, R. P., Almeida, M. C., & Reitz, A. L. (1992). A scale to measure restrictiveness of living environments for troubled children and youths. *Hospital and Community Psychiatry, 43*(1), 54-58.

Helflinger, C. A., Northrup, D. A., Sonnichsen, S. E., & Brannan, A. M. (1998). Including a family focus in research on community-based services for children with serious emotional disturbance: Experience from the Fort Bragg evaluation project. In M. H. Epstein, K. Kutash, & A. Duchnowski (Eds.), *Outcomes for children and youth with emotional and behavioral disorders and their families: Programs and evaluation best practices*. Austin, TX: PRO-ED, pp. 261-293.

Hodges, K. & Wong, M. M. (1996). Psychometric characteristics of a multidimensional measure to assess impairment: The child and adolescent functional assessment scale. *Journal of Child and Family Studies, 5*(4), 445-467.

Hodges, K. & Wong, M. M. (1997). Use of the child and adolescent functional assessment scale to predict service utilization and cost. *Journal of Mental Health Administration, 24*(3), 278-290.

Malysiak, R. (1998). Deciphering the tower of Babel: Examining the theory base for wraparound fidelity. *Journal of Child and Family Studies, 7*, 11-25.

Rabash J., Brown W., Healy M., Cameron B., & Charlton, C. (2001). *MLwiN, version 1.10.0007: Multilevel models project*. London, England: Institute of Education, University of London.

Rast, J., Peterson, C., Mears, S., & Earnest, L. (2003, March). *Treatment effectiveness: Service process as a determinant of treatment effect—the importance of fidelity*. Paper presented at the 16th Annual Research Conference, A System of Care for Children's Mental Health: Expanding the Research Base.

Toffalo, D. A. D. (2000). An investigation of treatment integrity and outcomes in wraparound services. *Journal of Child and Family Studies, 9*(3), 351–361.

VanDenBerg, J. (1993). Integration of individualized mental health services into the system of care for children and adolescents. *Administration and Policy in Mental Health, 20*, 247-257.

VanDenBerg, J., & Grealish, M. (1996). Individualized services and supports through the wraparound process: Philosophy and procedures *Journal of Child and Family Studies, 5*(1), 7-21.

CONTRIBUTING AUTHORS

Ralph A. Brown, D.S.W., R.S.W.
Professor and Director; 905-525-9140 ext. 24596, fax: 905-577-4667; e-mail: rabrown@mcmaster.ca

Joanne Loughlin, M.A.
Wraparound Research Coordinator, 905-525-9140 ext. 24596, fax: 905-577-4667

All authors: School of Social Work, McMaster University, Hamilton, Ontario, Canada L8S 4M4

The Tapestry Program, A Wraparound Program for Families of Color: A Parent-Community Partnership

Julie Becker

Introduction

The mission of the Tapestry program is to increase access to wraparound services for Latino and African American children and their families in the impoverished central region of San Diego. Due to a general mistrust of traditional providers on the part of these families, *Parent Partners* were employed as wraparound facilitators. Parent Partners are parents of emotionally, behaviorally and learning disabled youth; they receive 40 hours of standardized Partner training and thirty hours of wraparound facilitation training.

Tapestry has redefined "community-based" to mean that we serve a specific region, we develop and help create resources in the community, and we hire Parent Partners from the same neighborhoods served by the Tapestry Program. This model ensures cultural familiarity and creates career opportunities for an impoverished area. To ensure that Tapestry is community owned and driven, a Community Advisor and Board oversee all aspects of the program.

Tapestry is unique in that it accepts referrals from all sources, including parents, community advocates, churches and clinics. Tapestry practices an active "No Wrong Door" policy, whereby all families referred are contacted, provided resources, and receive follow up services. Finally, because Tapestry is a culture-specific program, we designed a cultural training and supervision program that includes two hours of monthly, cultural supervision.

Outcome Measures

Tapestry chose program outcome measures that could be administered by para-professionals. These measures yield information on both parent and youth functioning and can be scored and formatted into a family report. All families receive feedback from the outcome measures, which are then incorporated into their wraparound plan. Outcome measures include: the Parenting Stress Inventory (Abidin, 1995), or the Stress Inventory for Parents of Adolescents, The Behavioral and Emotional Rating Scale (BERS; Epstein & Sharma, 1997); the long form of the Connors Behavioral Rating Scale for Parents-Revised (Goyette, Conners, & Ulrich, 1978), and The Knowledge of Parenting Practices Questionnaire (Becker, 1999). Raters were trained with the Wraparound Observation form (Epstein, 1999).

Rater Training

To control for the great amount of variability often demonstrated in facilitation styles, Tapestry designed a quality control program to insure that wraparound was conducted in a standardized manner while maintaining its values and principles. Trained raters and staff received 15 hours of training on the Wraparound Observation Form. Training included lectures, test reviews and role playing. Trained staff then visited each wraparound team and rated the facilitator's performance. Table 1 provides the results of this training ($N = 17$). Staff were also taught to practice a conservative form of wraparound that includes an agenda, a meeting checklist for the first six meetings, the use of visual aids, and attention to deliverable outcomes.

Results

Outcome measures were assessed at the onset and termination of wraparound services. Because families were interviewed with one of two versions of the Parent Stress Inventory Scales, numbers were too small to reach significance. However, statistical analysis using a paired *t*-test on change scores with 11 degrees of freedom did reveal that children's symptoms, as measured by the Connors Behavioral Rating Scales, showed significant improvement on all scales except the Shy and Anxious subscales. Table 2 reports the results for this instrument. On the Knowledge of Parenting Practices questionnaire, parents

Table 1
Wraparound Observation Form–Percentages (*N*=17)

Category	*Yes*	*No*	*NA*
Life Domains Discussed			
Cultural	23%		
Education	82%		
Family	100%		
Legal	12%		
Medical/Self Care	41%		
Mental Health	100%		
Residential	88%		
Safety	47%		
Social/Recreational	76%		
Substance Abuse	05%		
Vocational	58%		
Community			
1. Info about Community-resources	82%	11%	.05%
2. Plan of care includes 1 public/private resource	94%		.05%
3. Plan of Care-I informal resource	76%	17%	.05%
4. In Community not out residential placement	17%		82%
5. Non professionals present	35%	64%	0
Individualized			
6. Parents asked what tx have worked in past	29%	11%	52%
7. Professional Partner advocates for services	94%	.05%	
8. All services needed are in plan	100%	0	0
9. Barriers identified and addressed	94%	.05%	
10. Steps to plan are identifies	70%	29%	
11. Strengths of family are discuss	58%	41%	
12. Plan of care includes life domains, g,o,r,i are discussed	82%	17%	
13. Plan of care based upon strengths	41%	58%	
14. Safety plan developed and reviewed	17%	58%	
Family			
15. Convienant plans for family to attend meeting	94%	.05%	
16. Parent/child seated so can be included in meeting	100%		
17. Family members treated courteous	100%		
18. Family member perspective is presented to professionals	58%	41%	
19. Family asked what goals they would like to work on	100%		
20. Parent asked what resources they would prefer	94%		.05%
21. Family designs the plan of care	100%		
22. Tasks assigned to team that promotes self sufficiency	94%	.05%	
23. Team plans for reunification/intact family	94%	.05%	
24. Family members can disagree with plan of care	100%		
Interagency Coll			
25. Staff from other agencies are included on teams	47%	.05%	47%
26. Other agencies can provide feedback	47%	.05%	47%
27. Informal supports give feedback	41%		58%
28. Interagency problems identified/resolved	41%		58%
29. Other agency staff describe community resources	47%	11%	35%
30. Team members speak between meetings	70%	11%	17%
31. Alternative funds discussed before use Wrap flex funds	94%		.05%
Unconditional Care			
32. Termination discussed because of F problems		.05%	82%
33. Termination of services b/c of severity of child/family issues	17%	17%	64%
34. Safety plan discussed for severe problems	52%	11%	35%
Outcomes			
35. Plan of care discussed in measurable terms	41%	52%	.05%
36. Criteria for termination discussed	11%	29%	58%
37. Objective or verification info used for outcomes	70%	17%	
Management			
38. Key members invited to meeting	70%	17%	11%
39. Current info about family is shared	82%	17%	
40. All meeting members introduce themselves	88%		11%
41. Family informed about observation of meeting	76%	17%	
42. Plan of care agreed upon by all	82%	.05%	.05%
Professional Partner			
43. Prof.Partner makes the agenda clear	76%	23%	
44. Prof partner reviews goals, obj., interventions, progress	82%	11%	
45. Prof partners focus on strengths	47%	52%	
46. Prof Partner helps to revise plan	82%	17%	
47. Prof Partner summarizes meeting content	35%	58%	
48. Prof Partner sets next meeting time	100%		

were asked about their knowledge of their children's mental health and treatment, and about their own parenting practices. Initial measures indicated that upon entering the program, 87% of parents did not understand their youth's emotional challenges. Following wraparound participation, which stressed parent education, 70% of parents noted an increase in their knowledge.

Table 2
Connors Behavioral Rating Scale-Revised-Parent Long Form

Scales	*Means*	*Standard Score*	*T-Score*	*D-F*	*Significant*
Oppositional	-11.92	17.06383	-2.419	11	0.034
Cognitive Problems	-11.00	13.40963	-2.842	11	0.016
Hyperactivity	-16.33	17.26443	-3.277	11	0.007
Anxious-Shy	-6.75	12.72881	-1.837	11	0.093
Perfectionism	-8.333	11.27615	-2.56	11	0.027
Social Problems	-12.58	14.50052	-3.006	11	0.012
Psychosomatic	-6.583	16.26741	-1.402	11	0.189
ADHD Index	-12.92	16.11018	-2.777	11	0.018
Restless/Impulsive	-12.67	13.43898	-3.265	11	0.008
Emotional Liability	-12.75	14.45447	-3.056	11	0.011
Connors Global Index	-13.17	14.45893	-3.154	11	0.009
DSM Inattentive	-13.67	15.00505	-3.155	11	0.009
Hyperactive-Impulsive	-18.08	17.96268	-3.644	11	0.004
TOTAL	-16.73	17.5048	-3.169	10	0.010

An interesting finding of the Tapestry program is that Parent Partners appear to proceed through five developmental phases in their growth as facilitators. This developmental series is reflected in their knowledge and ability to process cultural issues. These five phases are: (1) Negative Immersion: Parent Partners approach their position with a history of negative relationships with professional providers, which need to be addressed; (2) Dissonance: A period of ambivalence between job excitement and insecurity; (3) Reflection-The New Professional: A period of reflection about their new role, sometimes including sadness that these services were not available for their own children; (4) Conservatism-The Boot Strap Demeanor: Parent Partners tend to personalize a families progress or lack of progress and may become judgmental of families, expecting them to work as hard as they did, and; (5) Integration: At one year to 18 months the Parent Partners begin to feel comfortable in their roles. A new maturity about cultural issues and family differences develops, and Parent Partners exhibit more personal insight about their interactions with families.

Also of interest is the fact that Parent Partners scored below average on being "strength based." A staff retreat was held to analyze this finding. Parent Partners stated that they had to work so hard to turn their own lives around that they tended not to reward themselves for progress. It is possible that this perfectionism then carried over to their work with families.

Conclusion

Though not designed as a research project, these data suggest that wraparound teams facilitated by Parent Partners can be effective in producing change in youth's mental health symptomology, and in providing parents with information and parenting skills for their youth.

References

Abidin, R. R. (1995). *Parenting Stress Index (3rd ed.)*. Odessa, FL: Psychological Resources, Inc.

Epstein, M. & Sharma, J. (1997). *Behavioral and Emotional Rating Scale: A strength-based approach to assessment*. Austin, TX: PRO-ED.

Goyette, C. H., Conners, C. K., & Ulrich, R. F. (1978). Normative data on revised Connors parent and teacher rating scales. *Journal of Abnormal Child Psychology, 6*, 221-236.

CONTRIBUTING AUTHOR

Julie Becker
Program Director/Parent; Harmonium, Inc., 616 Raven St., San Diego CA, 92102; 619-266-1027, fax: 619-266-1264; e-mail: jbecker@harmonium-inc.com

Symposium

Defining Wraparound: Functional Outcomes, Fidelity, and Accountability Strategies

Chair
John VanDenBerg

Authors
Christa Peterson et al.
Jim Rast et al.
Sheila Bell

Introduction

Wraparound as a treatment process has been discussed and implemented in system-of-care projects throughout North America over the past fifteen years. The following summaries report on strategies underway to measure and describe the impact of wraparound processes in different settings, as well as address issues of defining and measuring fidelity in real-world application.

Comparing Functional Outcomes of Wraparound and Traditional Mental Health and Child Welfare Services

Christa Peterson, Les Gruner, Leanne Earnest, Jim Rast & Norma Abi-Karam

Acknowledgements: This research was partially funded through a Title IV-E research and training funding. The evaluation for the children and youth in the Las Vegas sites was partially funded through a grant from SAMHSA for Building Systems of Care through Neighborhood Care Centers.

Introduction

The use of "wraparound" as a service process has steadily increased over the past fifteen years and recent estimates are that as many as 400,000 children and youth may have received wraparound services (VanDenBerg, 2003). Multiple demonstration projects have reported successful reductions in the number of days and level of restrictiveness of residential placements using a wraparound approach. These and other demonstrations have shown improved school, social, emotional, and behavioral functioning for children and youth and improved quality of life and empowerment to meet the needs of their own children for parents using a wraparound approach (VanDenBerg, 1993, Rast, 1999, Burns 2002). Although these demonstrations have included thousands of children, they have not met the criteria of *evidence-based* because they have been demonstration projects and not controlled research. This paper reports on the pilot phases of a research process in Nevada to evaluate the impact of the wraparound process for several hundred children in the child welfare system.

This pilot project is a result of a legislative mandate that is changing the child welfare system in Nevada. The context and history of this legislation may serve as a guide to others who want to evaluate promising practices to establish evidence-based results. In 1998 Nevada was the only state in the country that still had a bifurcated child welfare system in which the counties performed investigations and child support while the state managed foster care and adoption. It was decided that this division was related to bad outcomes for children and families, and created duplication and fragmentation of public services. A legislative committee was formed to decide how to make a change; some steps taken that may have influenced the final legislation were:

- Mental Health staff and advocates became active participants in this planning process (devoting thousands of hours of time and resources) to ensure that the new system met the behavioral health needs of the children and youth.
- Families and staff told multiple stories of how unmet mental health needs had led to bad outcomes for children and youth in the child welfare system and stories of how effective mental health supports (through the Substance Abuse and Mental Health Services Administration's Systems of Care project) had led to good outcomes.

- Division of Child and Family Services (DCFS) staff evaluators in Las Vegas completed an assessment of the number of children in the foster care system who had mental health needs and how many of these children were not receiving appropriate levels of services.
- National experts were brought in to testify on the impacts of implementing systems of care and to work with the legislative committee on describing how this could occur in Nevada within the context of the proposed changes in the child welfare system.
- DCFS staff and evaluators presented data on the positive impact of system of care and wraparound implementation for children within the Neighborhood Care Center Project.

The final result was child welfare legislation that established collaborative Mental Health Consortia in each jurisdiction of the state whose role is to annually assess the current need for children's behavioral health services, to assess how well this need is met, to develop a plan for how this need can best be met, and to communicate findings to a newly formed standing committee of the legislature. In addition, the legislation created funding and flexibility to provide comprehensive wraparound services for 327 children in the child welfare system and mandated an evaluation of the impact of the service process with quarterly reports to the Legislative Committee on Children and Youth. The mandate of the services and evaluation for these children kept this project going through tough economic times.

Method

The subjects for the pilot phase of the research project were 65 children and youth in the child welfare system who met the criteria for severe emotional disorders (SED). Thirty-three of the children were assigned to the experimental group and 32 were assigned to the control group. Through a statewide assessment process, over 400 children were identified who met the basic criteria for the initial services. It was decided to do the initial pilot work in four areas of the state (Reno, Carson City, and North and West Las Vegas). Eight children were selected to receive wraparound services from this list of 400 children in each of these regions with a ninth from North Las Vegas. In each of these areas eight children were selected to serve as controls. Children were matched on age, sex, race, current residential placement, severity of mental health problems as measured by the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges, 1997) and the Global Assessment of Functioning measure (GAF; APA, 1994). See Table 1 for the comparison of these two groups.

Table 1
Sample Characteristics at Intake

	Control (N = 32)	*Experimental (N= 33)*
Average Age	11.7 years	11.9 years
% Caucasian	51.9%	54.2%
CAFAS[a]	103	102
GAF[b]	48	46
Residential Level[c]	3.4	3.2
Moves Last 6 Months[d]	1.9	2.4
Days in Custody[e]	1318	851

[a]The CAFAS scores are the average using the 8 scale scoring system.
[b]The GAF (global assessment of functioning) scores were done at time of entry into the study.
[c]The residential level is based on the ROLES (Restrictiveness of Living Environment Scale) levels adapted for Nevada in which higher levels are more restrictive.
[d]The moves are the number of changes in primary residence in the 6 months prior to initiation of the study
[e]Days in custody is the number of days the child had been in the custody of the state at the date of study initiation.

The thirty-three children and youth in the experimental group were assigned to one of four wraparound facilitators who were trained in the wraparound process. Each of these facilitators also received hands-on coaching as they learned and began to implement the process. The quality of the wraparound process was measured using the wraparound fidelity index (WFI)[1]. Children and youth in the control group received the standard child welfare and mental health services available in the system[2].

[1] *Implementation and the results of the process measures using the WFI are described in a separate paper in this symposium by Rast, Peterson, Earnest, and Mears entitled, Service Process as a Determinant of Treatment Effect – The Importance of Fidelity.*

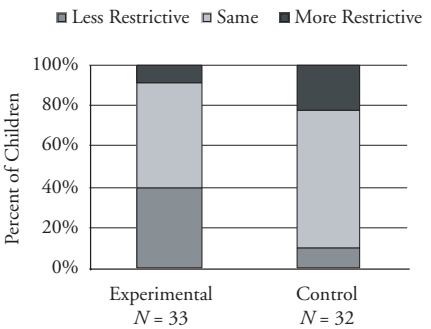
[2] *The differences in what children received is being documented and analyzed through a services and costs study not reported in this symposium.*

The evaluation for this study has three primary parts: a child and family-outcome study, process assessment, and services and costs. This paper discusses some of the initial findings for the child and family-outcome study. Data is being collected in the following areas: child symptoms and intensity and substance abuse (CAFAS); child behavior (CBCL; Child Behavior Checklist, Achenbach & Edelbrock, 1991), social functioning; substance use; school attendance and performance; delinquency; juvenile justice involvement (Nevada Child Status Report); and stability of the child's living arrangements (modified ROLES). This evaluation component gathered information on children for the six months prior to study implementation and for an additional eighteen months.

Results

The initial results show some large improvements in many of the primary outcome measures for the children and youth receiving wraparound. Figure 1 shows the changes in residential placement for the two groups of children after six months. Thirteen of the 33 children who received wraparound moved to less restrictive environments compared to only 3 of the 32 children in the control group. In addition 7 of the 32 children receiving usual services moved to more restrictive placements compared to only 3 of those who received wraparound. In fact, through the process of the strengths, needs and culture discovery family members were found for seven children in the experimental group who had previously had permanency goals of long term foster care.

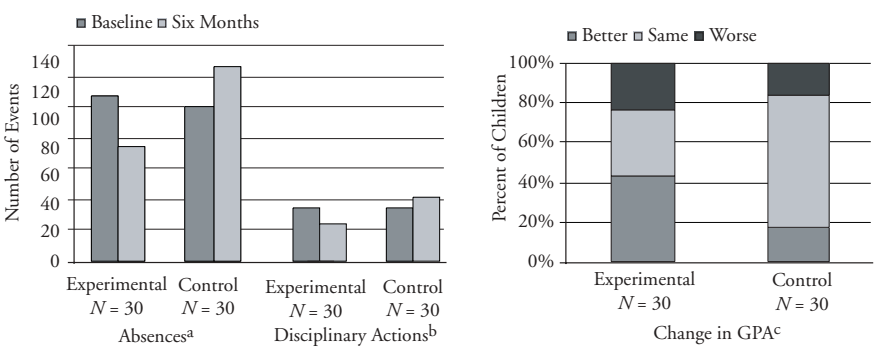
Figure 1
Residential Placement Level By Study Group at Six Months Post-Study Initiation



Note: The levels are based on the ROLES modified to the specifics of the Nevada continuum of residential placements.

Figure 2 shows three of the primary school outcomes for the two groups. Thirty of the children in each of the two groups were enrolled in school. For these children, the left panel of the figure shows school attendance and disciplinary actions. In each case the children receiving wraparound had a 29% decrease in absences and a 26% decrease in disciplinary actions compared to those in the control group who had a 26% increase in absences and a 18% increase in disciplinary actions. The right panel of Figure 2 shows the changes in grade point average. Forty-three percent of the children in wraparound had an improved GPA compared to only 17% of the controls. On the other hand 23% of the children in wraparound had lower grades compared to only 10% of the controls.

Figure 2
School Outcomes



[a]Absences refers to the total absences of all students in each group adjusted for the number of days of scheduled school.
[b]Disciplinary actions shows the number of detentions and suspensions for the students in each group during the same time period.
[c]Change in GPA compares the grade point average for the six months prior to study initiation with the first six months of the study. Better reflects grade point averages that increased by more than 0.1 on a 4-point scale and worse reflected GPAs that decreased by more than 0.1.

Table 2 shows the results for seven of the primary outcome measures. Children in the control group showed improvement in four of the seven areas, however the children in wraparound showed greater improvement in these areas, and some improvement across all seven areas. These are only the pilot data for the first group of children in this study but the initial results are promising.

Table 2
Summary Results for Primary Study Outcome Measures

	Control		*Experimental*	
Measure	*Baseline*	*6 Months*	*Baseline*	*6 Months*
Residential Level	2.9	2.8	2.9	2.2
Abuse Reports	0.5	0.2	0.3	0.03
Law Enforcement Contacts	0.6	0.4	0.4	0.1
GPA	2.5	2.5	2.4	2.4
Absences	3.3	4.2	3.5	2.5
Disciplinary Actions	0.9	1.3	1.1	1.1

Note: *Residential level* is measured from the six levels of the ROLES adapted for Nevada. Level 1 is the level for living with family or independent living and Level 6 is psychiatric hospitalization. *Abuse reports* refers to the average number of abuse reports filed in the six months prior to study initiation and the number filed in the first six months of the study. The *law enforcement contacts* refers to the average number of contacts in the same time periods. *GPA* refers to the average grade point average for children in the six months prior to study initiation and the first six months after initiation. *Absences* is the average number of school absences and *disciplinary actions* is the average number of school disciplinary for these time periods.

Discussion

Although there have been several single subject design studies and multiple demonstration projects that have reported positive outcomes from wraparound processes, there is a continued need for controlled research. Wraparound is a real world process that must be individualized for every child and family. This need for individualization makes it more difficult to conduct the needed research to define the impacts of wraparound and the differential impacts of the steps in the process. Through engaging and building on an ongoing systems change effort in DCFS, it has been possible to establish the conditions for doing this type of research. The initial results seem to show that wraparound can result in positive gains for children and youth in residential placements, primary school outcomes, and reduction in mental health symptoms.

References

Achenbach, T. M., & Edelbrock, C. (1991). *Child Behavior Checklist/4-18.* Burlington: University of Vermont, Department of Psychiatry

American Psychiatric Association, (1994). *Diagnostic and statistical manual of mental disorders, 4th Edition* (DSM-IV). Washington, DC: Author.

Burns, B. K. (2002). Reasons for hope for children and families: A perspective and overview. In Burns, B. and Hoagwood, K. (Eds.), *Community Treatment for Youth: Evidence-Based Treatment for Severe Emotional and Behavioral Disorders.* Oxford: Oxford University Press.

Hodges, K. (1997). *Child and Adolescent Functional Assessment Scale*. Ann Arbor, Michigan: Functional Assessment Systems, L.L.C.

Rast, J. (1999) Promising Practices in Children's Mental Health, Systems of Care 1999 Series, Volume VII. NRN (Eds.) in *Integrated Evaluation and the Development of Systems of Care.* Washington, D.C.: Center for Effective Collaboration and Practice, American Institutes for Research.

VanDenBerg, J. (1990). The Alaska Youth Initiative: A demonstration of individualized treatment and Education. In R. Friedman and A. Duchnowski, *The Second Annual Conference Proceedings, A System of Care for Children's Mental Health: Expanding the Research Base*, (pp. 59-72): Tampa, FL. University of South Florida, Louis de la Parte Florida Mental Health Institute, Research and Training Center for Children's Mental Health.

VanDenBerg, J. (2003). The History of Wraparound. *Vroon VanDenBerg Website*: VroonVDB.com.

Service Process as a Determinant of Treatment Effect – the Importance of Fidelity

Jim Rast, Christa Peterson, Leanne Earnest & Susan Mears

Acknowledgements: This research was partially funded through a Title IV-E research and training funding. The evaluation for the children and youth in the Las Vegas sites was partially funded through a grant from SAMHSA for Building Systems of Care through Neighborhood Care Centers.

Introduction

During the past fifteen years the use of "wraparound" as a process has exploded with an increase from less than 10,000 to over 400,000 children and their families receiving something called wraparound. At the same time there has been an increased focus on using "evidence-based" practices. Some studies have suggested that coordinated systems of care do not produce better outcomes than usual care (Bickman, Summerfelt, & Noser, 1997). From these and other studies the authors have often contended that in addition wraparound does not result in improved functioning for children and youth compared to usual mental health services. Unfortunately in the rush to produce evaluations of large-scale system of care implementation and studies to build the "evidence-based" literature, insufficient attention has been placed on the process for wraparound or system of care structure and function for systems of care. In some cases the process is not defined, in others it is defined but not with the specificity that guides implementation or replication, and even when this is done, studies and evaluation have overlooked the importance of assessing whether the process has been implemented as intended.

Wraparound as a process for delivering services was first used to describe the service process of the Kaleidoscope Program in Chicago in 1975. It has been defined as a family-centered, team based process that focuses on the strengths, needs and culture of the child and family to develop an individualized plan. Although several articles and monographs have described the process and some general principles (Burchard, Burchard, Sewell, & VanDenBerg, 1993; VanDenBerg & Grealish, 1996; Burns & Goldman, 1999), only recently have the practice principles and elements been defined and most of the "wraparound" that is ongoing does not meet the criteria of these practice principles and elements. In some communities and states, wraparound services are any services purchased with non-categorical dollars. In others it is any form of team process for developing plans. In others it is a professional system that uses a continuum of care to assign children to levels. Thus research on wraparound can only be completed and replicated when the process is clearly defined through practice principles and elements and these "standards" are measured to ensure the research meets fidelity standards.

The first efforts to define fidelity of the wraparound process were done through quality improvement processes (Rast, 1999, Bruns, 1999). Several tools have been developed to measure the fidelity of the wraparound process to the intended practice principles but the one that has been used most widely and looks at all eleven of the practice principles is the Wraparound Fidelity Index (WFI; Bruns, Ermold, & Burchard, 2001). This paper reports the use of the WFI to assess the quality and fidelity of the wraparound process provided in the Nevada research project described in the previous paper[3].

[3] *Peterson, Rast, Gruner, Abi-Karan, and Earnest, this volume, Comparing Functional Outcomes of Wraparound and Traditional Mental Health and Child Welfare Services.*

Method

This study was one of a three-part study to examine the impact of the wraparound process on children and youth within the child welfare system in Nevada. Sixty-five children participated in the study. Thirty-three children were assigned to the experimental groups and received the wraparound process. Thirty-two children were assigned as controls and received usual child welfare and mental health services[4]. The 33 children assigned to the wraparound process were from four geographical regions of the state (Carson City, Reno, North Las Vegas, and South Las Vegas). Each of these four groups had an assigned wraparound facilitator who was responsible for implementing the process and a community team responsible for the System of Care support for wraparound. The facilitators received four days of basic training in the wraparound process and an additional 8 to 40 hours of hands-on coaching in the process.

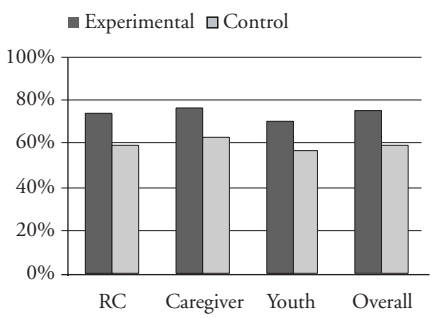
Approximately five months after children began the wraparound process (or at the same time for children assigned to the control group) telephone interviewers began contacting the primary caregivers, resource coordinators, and youth if they were 11 years of age or older. Three interviewers completed a total of 149 interviews across the two groups. All of the possible interviews were completed for the children in wraparound and all but caregiver interviews for 4 of the 32 children in the control group were completed. The WFI questions are scored on a three point Likert-type scale (*Not Met, Sometimes Met* and *Met*). Each of the eleven practice principles has four questions. This means that the possible score on each principle is 8. The scores were converted to a one hundred point scale for ease of review by staff and supervisors.

The scores for the four wraparound facilitators were calculated independently and it was determined that three of the four facilitators had scored at low fidelity levels on at least four of the principles. The fourth facilitator had scored at high levels on ten of the eleven principles. For this reason the outcome measures were resorted by high and low fidelity wraparound and presented in this paper in that format.

Results

Overall there was a significant difference between the wraparound fidelity scores for the 33 children in the experimental group and the 32 children in the control group. Figure 1 shows these results. The dark columns show the average scores across the four facilitators for all of the interviews. The experimental group averaged 75.6% fidelity to the practice principles while the control group averaged 59.6%. The first three sets of columns show the ratings by resource coordinators (case workers and wraparound facilitators), primary caregivers and youth. Although there is some variation in the ratings of the three groups, the overall difference between the two groups remains relatively constant across groups.

Figure 1
Average Rating for Service Process As Scored on the Wraparound Fidelity Index



The data for each of the four facilitators was calculated separately. These data showed that three of the facilitators had scores that ranged from 63.5 to 78.0% and each had 4 to 6 practice principle areas that had scores below 70%. The fourth facilitator had an overall average of 86.9% and no practice principle areas below 70%. Table 1 shows the average ratings for the three facilitators with the lower averages (Low Fidelity Wraparound, LF) and the facilitator with the higher scores (High Fidelity Wraparound, HF). The three shaded areas show the three practice principles

[4] *Part three of the study looks at the services and costs and reports on the types and amounts of services and supports received by each group. Information on this part of the study can be obtained from the authors.*

(youth and family team, natural supports, and flexible funding and resources) for the LF Wraparound that were scored at less than 70%. In addition, the HF Wraparound scored at least 15% higher in community-based supports, individualized services, and collaboration.

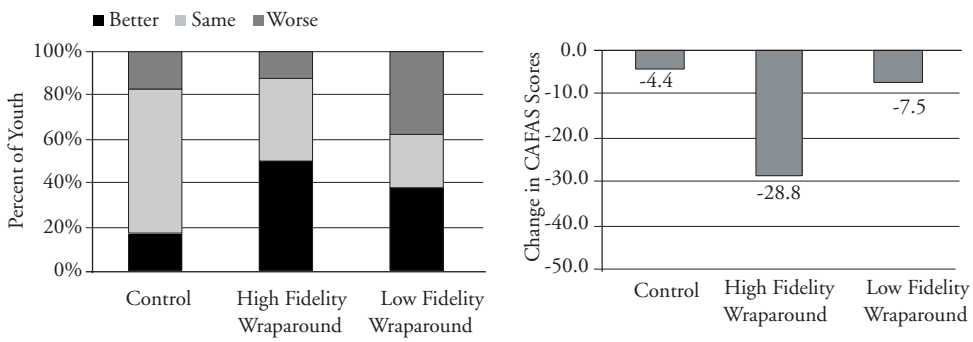
Table 1
Average Ratings on Wraparound Fidelity Index (WFI) for Facilitators Classified by Low and High Fidelity Wraparound Provision

	Low Fidelity Wraparound	*Low Fidelity Wraparound*
Voice and Choice	76%	87%*
Youth and Family Team	61%	91%
Community Based Services and Supports	73%	90%*
Cultural Competence	74%	89%
Individualized Services	74%	96%*
Strengths Based Services	72%	86%
Natural Supports	52%	84%
Continuation of Care	84%	90%
Collaboration	71%	95%
Flexible Funding and Resources	47%	71%
Outcome Based Services	77%	74%
Overall	**72%**	**87%**

Note: The first eleven rows show the average ratings across parent/caregivers, youth, and resource coordinator interviews. The final row shows the overall ratings for the two groups. The shaded areas highlight the areas of greatest difference in meeting the fidelity standards of wraparound as defined in the WFI.
*$p < .05$

Figure 2 shows the GPA outcome data from the previous study resorted by HF and LF wraparound. In the comparisons on the left the experimental group has had more students improve their grades but also had had more students with lowered grades. The resorted data on the right shows that three times as many children in HF Wraparound had improved outcomes compared to the controls and fewer children whose GPAs decreased. On the other hand the children with LF Wraparound had more than twice the percent of children with an increase in GPA and twice the increase in children with decreasing GPA. The confounding finding of the increasing percentage of children in wraparound with decreasing school performance was all contained in the LF Wraparound group.

Figure 2
Changes in GPA[a] and CAFAS[b] Scores By High and Low Wraparound Fidelity



[a] *Same* indicates students whose GPAs remained within 0.1 on a 4-point scale.

[b]The CAFAS scores use the eight item scoring system. The data compares the change in scores from the time of intake (which assessed the score based on the six months prior to the study) and after six months in the study.

The experimental group had an average decrease in CAFAS scores of 12.8 points over the first six months in the study. The control group had an average decrease of 4.4 points. When the two wraparound groups are compared, however, the LF Wraparound group had an average decrease of 7.5 points compared to an average decrease of the HF Wraparound group of 28.8 points. Table 2 shows the comparison of six of the other primary outcome measures for the HF and LF Wraparound groups. The LF group showed improvements in only 3 of the 6 areas and actually worsened in two of the areas. On the other hand the HF group showed significant improvements in each of the six measures and more improvement that the LF group in all measures.

Table 2
Summary Results for Primary Outcome Measures

	Hi Fidelity Wraproud		*Low Fidelity Wraaround*	
Measure	*Baseline*	*6 Months*	*Baseline*	*6 Months*
Residential Level	2.9	1.1**	2.9	2.6
Abuse Reports	0.5	0.0*	0.3	0.1
Law Enforcement Contacts	0.8	0.0**	0.3	1.0
GPA	2.5	2.9*	2.4	2.3
Absences	2.8	1.8*	3.8	2.7
Disciplinary Actions	0.8	0.5*	1.3	1.3

Note: *Residential level* is measured from the six levels of the ROLES adapted for Nevada. Level 1 is the level for living with family or independent living and Level 6 is psychiatric hospitalization. *Abuse reports* refers to the average number of abuse reports filed in the six months prior to study initiation and the number filed in the first six months of the study. The *law enforcement contacts* refers to the average number of contacts in the same time periods. *GPA* refers to the average grade point average for children in the six months prior to study initiation and the first six months after initiation. *Absences* is the average number of school absences and *disciplinary actions* is the average number of school disciplinary for these time periods.
$^{**}p < .01$, $^{*}p < .05$

Discussion

Although this data only represents the initial six months of pilot work and the number of children in HF wraparound was small (8 children), the results suggest a link between the fidelity of the wraparound process and the eventual impact of the process. In addition, the areas in which the LF Wraparound group were consistently lower on the fidelity scores (youth and family team, engaging natural supports, individualization, collaboration, and flexible funds) may begin to show what about the process is important to produce good outcomes. The study is expanding, and the process to ensure high fidelity wraparound is being strengthened, but preliminary results suggest a clear relation between the quality and fidelity of wraparound and outcomes for children and families.

References

Bickman, L., Summerfelt, W. T., & Noser, K. (1997). Comparative outcomes of emotionally disturbed children and adolescents in a system of services and usual care. *Psychiatric Services, 48,* 1543-1548.

Bruns, E. J. (1999). National approaches to measuring and monitoring treatment fidelity. Paper presented at the *12th Annual Research Conference: A System of Care for Children's Mental Health,* Clearwater Beach, Florida.

Bruns, E. J., Ermold, J., & Burchard, J. D. (2001). The Wraparound Fidelity Index: Results from an Initial Pilot Test. 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. 339-342) Tampa, Florida: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Research & Training Center for Children's Mental Health.

Burchard, J.D., Burchard, S.N., Sewell, R., & VanDenBerg, J. (1993). *One kid at a time: evaluative case studies and description of the Alaska Youth Initiative Demonstration Project*. Washington DC: Georgetown University Child Development Center, CASSP Technical Assistance Center.

Burns, B. K. (2002). Reasons for hope for children and families: A perspective and overview. In Burns, B. and Hoagwood, K. (Eds.), *Community treatment for youth: evidence-based treatment for severe emotional and behavioral disorders.* Oxford: Oxford University Press.

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

Rast, J. (1999) Promising Practices in Children's Mental Health, Systems of Care 1999 Series, Volume VII. NRN (Eds.) in *Integrated evaluation and the development of systems of care.* Washington, D.C.: Center for Effective Collaboration and Practice, American Institutes for Research.

VanDenBerg, J. & Grealish, E. M. (1996). Individualized services and supports through the wraparound process: Philosophy and procedures. *Journal of Child and Family Studies*, 5, 1, 7-21.

Certification of Facilitators as a Method for Increasing Wraparound Fidelity

Jim Rast & John VanDenBerg

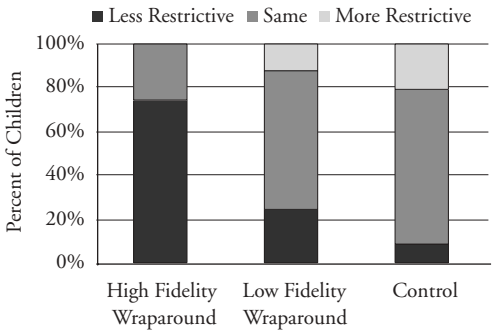
Acknowledgements: This research was partially funded through a Title IV-E research and training funding. The evaluation for the children and youth in the Las Vegas sites was partially funded through a grant from SAMHSA for Building Systems of Care through Neighborhood Care Centers.

Introduction

The use of the term wraparound to describe a process or set of services for children with mental health needs has expanded rapidly over the past fifteen years. The first mention of the word "wraparound" was in an article by Dr. Lenore Behar in 1986. The first article about wraparound as a formal process was in a 1988 article by John VanDenBerg and was described as a process for providing community-based individualized services for children with severe emotional disorders. Over time wraparound has been used to describe everything from a set of prescribed services, to flexible non-categorical supports, to a value-based process of providing individualized services and supports. These variations in expectations and processes have made it difficult to research wraparound and to implement the process.

The growing demand from legislators, agency heads, supervisors, and advocates for evidence-based practice has established a need for research on the wraparound process. Defining and measuring the fidelity of wraparound is important for research to specify the expected service process and differentiate it from the control condition. The first step in this process is to clearly define the performance elements of the wraparound process. This defines what must be present to be called wraparound. The second step is to measure the process to see if it matches the expectations. If these two steps are not addressed, the outcomes of research cannot be related to the wraparound process. It may be that the services provided do not meet basic criteria for wraparound or that the control process is so similar to wraparound that the comparison is not a good evaluation of the wraparound process. For example, Peterson et al., this volume, report that the fidelity of the wraparound process has direct impact on the outcomes for seven outcome measures for children in the child welfare system. Figure 1 shows the differential impact on residential placement of high and low fidelity wraparound as measured on the Wraparound Fidelity Index (WFI).

Figure 1
Residential Placement Level at Six Months by High and Low Wraparound Fidelity



Note: The data compares the level of restrictiveness of residential placement at the time of study initiation with the level of restrictiveness after six months. The levels are based on the ROLES modified to the specifics of the Nevada continuum of residential placements. The difference between the HF group and both the LF and Control group are significant, $p < .01$.

Determining the fidelity of the process is also important for implementation. One function served through the fidelity process is to clearly define the expectations for providing the wraparound process. Providing facilitators with this level of detail serves as an effective form of communication for initial orientation and training. As training and coaching progresses measuring fidelity and using this assessment to prioritize and manage the training and coaching process can improve the impact training and lead to improved fidelity of the process. Supervisors can use the fidelity measures to guide ongoing professional development. Wraparound as a process is based on a collaborative community-based partnership that can only be effectively provided within the context of a collaborative community system of care. Measures of fidelity of the process can be used to identify and correct system barriers and challenges to the effective implementation of high quality wraparound.

Initial work to develop fidelity measures for wraparound focused on quality assurance (Bruns, 1999: Rast 1999). These tools were based on the values of the wraparound process and consisted of case review of wraparound plans, interviews with staff, interviews with families, satisfaction surveys for child and family team members, and direct observation of team meetings. Two fidelity tools were developed and tested for reliability and validity. The Wraparound Observation Form (WOF) was adapted from earlier QA forms to assess the fidelity of the wraparound team meeting process to meet the core wraparound principles (Epstein, et. al. 2003). The wraparound fidelity index (WFI) was developed by Burchard and colleagues as a set of phone interviews for the primary facilitator, caregiver and youth over 11 to assess how well the process meets the eleven wraparound principles.

The WOF provides a good indication if the process of facilitating child and family team meetings is being done in a way that meets the practice principles for wraparound, but offers no information about the other seven steps of the wraparound process. The WFI provides a good overview to the fidelity of the wraparound process for research but does not provide the supervisor, coach, or staff person the detailed information needed to implement the wraparound process. For these reasons, the coaching and supervisory wraparound tools were developed. This paper describes the process of developing these tools and some examples of how they have been used.

Method

The initial work to develop the VVDB quality improvement tools for wraparound was done in Michigan. A large group of Michigan stakeholders (over 125 individuals) representing parents, youth, staff and supervisors from the primary child serving agencies, and state officials first developed a set of thirteen values to support implementation of systems of care and wraparound. Through the second phase of this process, the group developed performance indicators for each of these values at the direct practice, supervisory, and community levels (Rast, 1998). A series of tools were developed from these performance indicators. After three years of pilot and full implementation of these tools and replication of this process in five other states, VVDB assessed the overall impact of the use of these tools. It was evident that each of the communities using the tools had seen consistent improvement in the quality of services but there were some consistent needs that were not being met. An analysis of these needs identified areas of fidelity that were not covered by the tools. The approach to developing the tools was reviewed and it became apparent that the initial focus on values had not covered all critical elements in the steps of wraparound. Using the values as the primary determinants of the performance indicators had not resulted in a shared vision of the practice model or the necessary community supports. The eight steps of wraparound (see Table 1) are listed below.

Table 1
Steps of the Wraparound Process

Step 1	Engagement of the Child and Family
Step 2	Immediate Crisis Stabilization and Safety Planning
Step 3	Strengths, Needs, and Culture Discovery
Step 4	Child and Family Team Formation and Nurturing
Step 5	Creating the Child and Family Team Plan
	Preparing for the Meeting
	Facilitating the Meeting
	The Wraparound Plan
Step 6	Ongoing Crisis and Safety Planning
Step 7	Tracking and Adapting (the Wraparound Plan)
Step 8	Transition (Out of Formal Services)

The performance indicators derived from the values were cross walked to the steps of wraparound and several key omissions were identified. Performance indicators were developed for these missing steps and reorganized to match the steps. Each of the seven steps and the three sub-steps of the actual plan development process has a sheet with 10 to 15 standards. These are separated into three basic skills and seven to twelve advanced skills.

The tools are used in initial training and orientation to communicate details of the practice model to the staff and supervisors providing the process, and can be used to communicate the service process model to others in the community. Initial coaching and training focus on mastering the 30 standards that are identified as basic. Once a facilitator has mastered these standards they are "certified" to provide wraparound. The supervisor, coach and staff then use the tools to prevent process creep and to focus efforts at personnel development on the advanced skills. Table 2 shows a sample of one of the worksheets from the coaching and supervision tools.

The new tools were then piloted in fourteen communities in five states. In three of these states the previous value oriented quality improvement tools had been previously used (some of which were retained and are still in use) and in two of these were the first quality improvement tools to be used to measure wraparound fidelity. Staff and supervisory were interviewed on the use and impact of the tools. The quality of wraparound was monitored using the WFI as a comparison for the pilot project in Nevada.

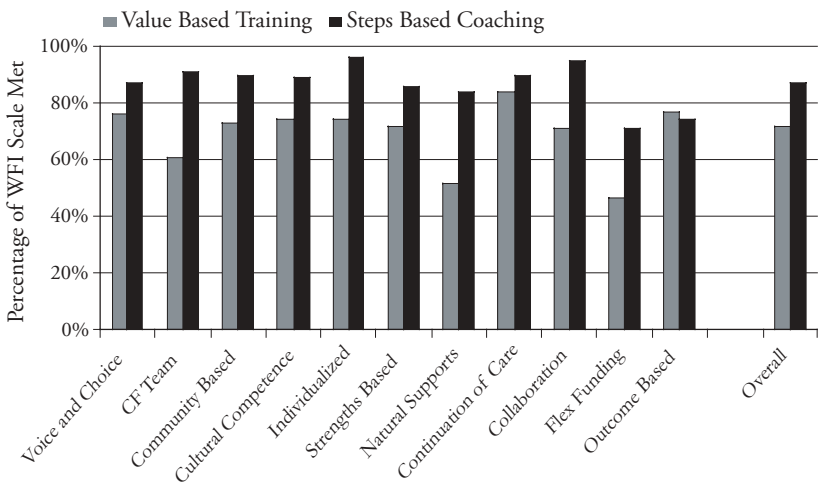
Table 2
Sample Worksheet from Coaching and Supervision Tool
Crisis Stabilization

	Standard	Rating
BASIC	Facilitator asks about ongoing potential crisis situations and safety concerns from referring agency and during first visit.	M MM MU U DNA
	If family is in crisis, facilitator completes brief functional assessment to predict, prevent and plan for crisis during the first visit.	M MM MU U DNA
	Facilitator communicates crisis stabilization and initial safety plans to CF Team members and others as needed.	M MM MU U DNA
ADVANCED	Facilitator works with family and others as necessary to determine what needs to be in place to satisfy safety concerns.	M MM MU U DNA
	Facilitator determines if crisis and/or safety plans have already been developed.	M MM MU U DNA
	Initial crisis stabilization and safety plans build on family strengths and available natural supports.	M MM MU U DNA
	The initial plan includes signs and symptoms of impending crisis and ways to deescalate these situations.	M MM MU U DNA
	Facilitator works with family to develop a crisis response (ways to respond to the crisis if they occur).	M MM MU U DNA
	Facilitator takes action to stabilize immediate crises during the first visit.	M MM MU U DNA
	Based on the crisis stabilization plan, the family can better recognize, prevent and respond to crisis situations.	M MM MU U DNA
	Based on the crisis stabilization plan the family can better recognize, prevent and respond to crisis situations.	M MM MU U DNA

Results

Figure 2 shows the comparison of four staff who were trained in the wraparound process using the value based indicators and those using the steps related indicators. There were many confounding variables that may account for the differences in these two approaches and additional research is needed to assess this impact, but those trained and coached with the steps based tools scored at significantly higher levels on overall fidelity to the wraparound model.

Figure 2
Wraparound Fidelity Scores (WFI) by Training Method, Nevada Pilot Study



Note: WFI scores have been converted from the eight point scale to a hundred point scale for ease in interpretation.

Reports from staff and supervisors in five states reported multiple uses for the tools. When new staff began to provide wraparound services, the tools were used to describe the process and to define the thirty critical standards to be met. Supervisors used the tools as focus for staff meetings and staff training to assess the overall quality of the process being provided in a program. Supervisors used the data from the tools to show community teams overall fidelity measures for wraparound and to support identification of system problems that were barriers and challenges to providing good wraparound. Supervisors reported that the focus on the individual steps made individual work with staff much easier because this organization allowed them to focus on the work of the staff one step at a time.

Discussion

Wraparound is a complex process with multiple practice principles and steps. Wraparound was initially developed as a flexible process and much of the variation in what is currently called wraparound is based on interpretation of the critical elements of the process. The development of standard measures to use to determine fidelity for research purposes and for implementation purposes and their use across multiple sites should provide an opportunity to determine the relative efficacy of the different elements in the process. It may be that a simplified version of the process will yield the same or better results than the whole enchilada, or it may be that without certain elements being consistently implemented there is little consistent impact to the process.

Defining and measuring the fidelity of wraparound is critical for both successful research and implementation of the process. The functions and uses of fidelity measures for research and implementation are not identical, and use of these measures to guide successful implementation requires more detail in the description of the process. While a limited number of key elements may be sufficient to determine if the process being provided can be considered wraparound for research purposes, it does not provide the level of detail necessary to teach, coach and develop quality wraparound process. The coaching and supervision tools described in this paper are a first effort at providing the level of detail necessary to ensure consistency and quality of the process.

References

Behar, L. (1986). Individualized services for children. *Children Today*, 15, 3 [May-June].

Bickman, L., Summerfelt, W.T., & Noser, K. (1997). Comparative outcomes of emotionally disturbed children and adolescents in a system of services and usual care. *Psychiatric Services, 48,* 1543-1548.

Bruns, E. J. (1999). National approaches to measuring and monitoring treatment fidelity. Paper presented at the *12th Annual Research Conference: A System of Care for Children's Mental Health,* Clearwater Beach, Florida.

Bruns, E. J., Ermold, J., & Burchard, J. D. (2001). The Wraparound Fidelity Index: Results from an Initial Pilot Test. 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. 339-342) Tampa, Florida: University of South Florida, The Louis de la Parte Florida Mental Health Institute, Research & Training Center for Children's Mental Health.

Burchard, J. D., Burchard, S. N., Sewell, R., & VanDenBerg, J. (1993). *One kid at a time: evaluative case studies and description of the Alaska Youth Initiative Demonstration Project*. Washington DC: Georgetown University Child Development Center, CASSP Technical Assistance Center.

Burns, B. K. (2002). Reasons for hope for children and families: A perspective and overview. In Burns, B. and Hoagwood, K. (Eds.), *Community treatment for youth: evidence-based treatment for severe emotional and behavioral disorders.* Oxford: Oxford University Press.

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

Epstein, M. H., Nordness, P. D., Duchnowski, A., Kutash, K., Schrepf, S., & Benner, G. (2003). Assessing the wraparound process during family planning meetings. *Journal of Behavioral Health Services & Research 30*(3), 352-362.

Rast, J. (1998). *The Michigan quality improvement handbook*. Michigan Department of Community Health, Lansing Michigan.

Rast, J. (1999) Promising Practices in Children's Mental Health, Systems of Care 1999 Series, Volume VII. NRN (Eds.) in *Integrated evaluation and the development of systems of care.* Washington, D.C.: Center for Effective Collaboration and Practice, American Institutes for Research.

VanDenBerg, J. & Grealish, E.M. (1996). Individualized services and supports through the wraparound process: Philosophy and procedures. *Journal of Child and Family Studies*, *5*, 1, 7-21.

Wraparound Fidelity and Accountability Strategies in Systems of Care

Sheila Bell

Introduction

For three years, Community Connections for Families (CCF), a Substance Abuse Mental Health Services Administration (SAMHSA) system of care grant project in Allegheny County, PA, has been developing, implementing, and monitoring a family driven wraparound approach to service delivery for children and adolescents (ages 6-14 years) with Serious Emotional Disturbances and their families.

CCF is being implemented in 5 partner communities in Allegheny County. Staff in each community includes a program supervisor, a family support specialist and two service coordinators. These staff work to build child and family teams focused on coordinating services across multiple child serving systems and building upon natural supports. In addition to staff in the five communities, a management team resides with the Allegheny County Department of Human Services. This team consists of a project director, family support coordinator, family involvement coordinator, operations coordinator, evaluation team, training and technical assistance coordinator, and a community organizer.

In order to assure that CCF is operating in accordance with wraparound principles and values (i.e., to ensure fidelity to the wraparound process), CCF worked with Dr. James Rast to develop a family driven practice model to monitor key indicators for each of the system of care and CASSP values to ensure quality service delivery and fidelity to the model.

Wraparound is a philosophy built on core values and elements to meet the needs of children and their families. The CCF model of wraparound is based on twelve core values: youth centered; family-focused and driven; safety of the youth, family and community; individualized; strengths-based; culturally competent; community-based/least restrictive; relentless advocacy; outcome-based; cost-effective/cost-responsible; education; and physical and mental well-being. When put into practice, these values become the backbone of a wraparound model for service delivery.

With the purpose of monitoring value and element implementation, CCF developed a value-based practice model. There are eight elements in the wraparound practice model. They are: family engagement, crisis planning and stabilization, functional strengths and needs assessment, child and family team, service planning, plan implementation, tracking and adapting, and transition. Each of these elements should be implemented in a value-based manner. This paper discusses how CCF worked with family members, communities and system partners to develop this model, how it is being measured and how results are used for quality improvement efforts in the system of care.

Method

Monitoring the fidelity of the wraparound service process was important to CCF for several reasons. First, staff wanted to ensure that the program was accountable to the children and families being served. Input and guidance from family members is key to the development of the system of care and CCF needed to know if that input and guidance was operationalized. CCF also wanted to measure fidelity so that the quality of the wraparound process could be improved upon over time and so that benchmarks for standards and success could be established. Finally, CCF believed that measuring fidelity was vital to future replication of the wraparound process in Allegheny County, as its results can help to demonstrate whether wraparound is the best way to serve children and their families.

There were five steps to developing the CCF value-based practice model: (1) operationalizing mission and values; (2) defining the model; (3) brainstorming elements and indicators; (4) designing and implementing tools for monitoring; and (5) creating a feedback loop. Each of these steps were approached and accomplished by holding meetings with two stakeholder groups. The first group was the CCF Community Evaluation Team. This team consists of caregivers of youth who have SED as well as child serving system partners from mental health, juvenile justice, and education. The second group was made up of CCF community and management team staff.

Operationalizing Mission and Values. The first step taken to defining the value based service process was to operationalize the CCF mission and values. This was accomplished by reviewing the standard system of care/wraparound values as well as the CASSP (Child and Adolescent Service System Program) values, and then adding values we thought were needed for our community to those lists. Because CCF works with multiple child serving systems, it was important to consider adding the values of those other systems to the CCF model. Hence, values such as education, physical well-being and safety were added to the values list.

Defining the Model. The second step in the process was deciding at what levels the values would be measured. Stakeholder groups agreed that there were three levels to the practice model: the service level, community level and system level. The service level was completed and the community and system levels are still being defined. Each of these levels has it's own set of elements and indicators to monitor. The elements for the service level of the value-based practice model were described above.

For each of the 8 elements noted, stakeholder groups ***brainstormed indicators*** that would demonstrate fidelity to the model. These indicators were then prioritized and refined over several meetings. For example, four indicators for the element "Family Engagement" are: meetings are held at times and places convenient for the family (family focused and driven value); families are asked about their hopes and dreams (strengths based value); families are asked about their culture and social networks (culturally competent value); and staff inform families about their status as mandated reporters (safety value).

Designing and implementing tools. The third step to developing the practice model was to create ways to measure the indicators chosen. Again, stakeholder input was key to the design, language and schedule for using the tools. More than one tool was created so that information could be collected from multiple sources at intervals that would not seem too overwhelming or repetitive. Tools that were developed included: child and family team satisfaction survey; record/case review tool; quality improvement mail survey; team meeting observation forms for supervisors; and initial meeting observation forms for supervisors. Reports from the CCF information system that contained information on indicators were also created.

Tracking the indicators. The fourth step was to use the tools and monitor whether they were measure the values and elements that they were intended to collect information on. Each indicator might be measured on more than one tool. For example, the indicator "Meetings are held at times and places that are convenient" is tracked on the following tools: observation forms, child and family team meeting satisfaction survey, continuous quality improvement survey, and from reports that document times meetings are held in the information system.

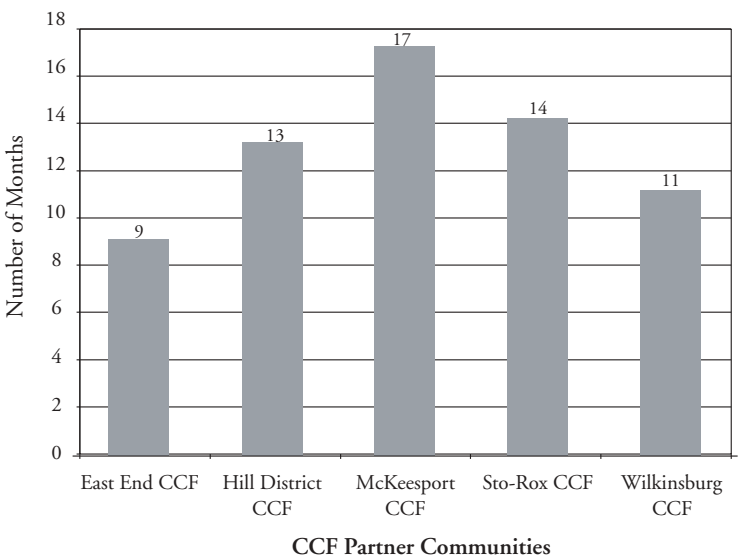
Creating the feedback loop. One of the most critical steps in the process was to create a way to use the data for quality improvement and assurance in the system of care. Stakeholder groups provided input on how and when they would like to see the information that was collected. Data collected with the tools above are shared through regular reports that are sent out through the mail, discussed at meetings, used in strategic planning, and is also used in the direct supervision of staff.

Results

CCF has used the tools discussed above for approximately one year. Figure 1 below illustrates results from the child and family team meeting satisfaction survey and the continuous quality improvement survey. Team meeting surveys were gathered in each community after team meetings were held. All team meeting participants complete the survey and place it in an envelope, which is then sealed and signed by the CCF service coordinator. The service coordinator does not see the results so that those who fill it out can honestly report their levels of satisfaction. The quality improvement survey was sent out to 278 child serving system partners and family members who have participated in child and family team meetings. Twenty-seven percent of the surveys were returned.

As displayed in Figure 1, both surveys rated CCF practice model elements as being met, for the most part. However, quality improvement survey respondents tended to rate all elements a bit lower than team meeting respondents. Crisis stabilization, and tracking and adapting were two elements that rated fairly low for both surveys. Further analysis is currently being conducted on how well the values are being met, as well as how results are being used to supervise staff.

Figure 1
Average Length of Stay in the CCF Program



Discussion

CCF had several lessons learned from the process of creating a value based practice model. First, although it was a time intensive process – lasting approximately 8 months – it was worth the investment as stakeholders became involved and are now invested in using the tools and data to create a better system of care. Stakeholder involvement from the start was key. Second, it takes more than one tool to measure the complexities of the wraparound philosophy and the values it embodies. CCF discovered that there are multiple ways to measure the same information so that various perspectives can be gathered to inform the system. Another lesson learned was that it is hard for some staff and stakeholders to use the data as a tool and not consider it as something that will be used as punishment. Education on what quality improvement is and why all stakeholders should use data is important. Finally, CCF has learned that the creation and implementation of a value-based practice model can introduce a level of accountability and credibility into the system of care that can then enhance efforts for sustainability and quality assurance.

CONTRIBUTING AUTHORS

Norma Abi-Karam, Ph.D.
Neighborhood Care Centers Las Vegas, Nevada 89102

Sheila Bell, M.A.
Evaluation Coordinator, Community Connections for Families, 304 Wood Street, Pittsburgh, PA 15222; 412-350-5760, fax: 412-350-3458; e-mail: sbell@dhs.county.allegheny.pa.us

Leanne Earnest, Ph.D.
Neighborhood Care Centers Las Vegas, Nevada 89102

Les Gruner, Ph.D.
Northern Nevada Child/Adoles. Svs Reno, Nevada

Susan Mears, M.S.W.
Neighborhood Care Centers Las Vegas, Nevada 89102

Christa Peterson, Ph.D.
Department of Child/Family Services, 6171 West Charleston Blvd., Las Vegas, Nevada 89146; 702-486-6120, fax: 702-486-7742; e-mail: CRPETERS@dcfs.state.nv.us

Jim Rast, Ph.D.
CEO, Vroon VanDenBerg, 98 Inverness Dr. E., Suite 310, Englewood, CO 80138; 303-790-4099, ext. 104, fax: 303-790-1926; e-mail: jim@vroonvdb.com

John VanDenBerg, Ph.D.
President, Vroon VanDenBerg; 303-790-4099, ext. 105, fax: 303-790-1926; e-mail: john@vroonvdb.com