Chapter Seven

Wraparound

Pilot Test of the Wraparound Fidelity Index 2.0

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Introduction

The Wraparound approach is an intensive community-based intervention that has been cited widely as a promising service delivery option for which more extensive implementation and empirical validation is warranted (Burns, Hoagwood, & Maultsby, 1998).

One crucial step in this process involves devising methods for defining and measuring fidelity to the intervention. Ensuring treatment fidelity in children's and family services is becoming an increasingly important issue in both service delivery (Kazdin & Weisz, 1998) and research (Lourie, Stroul, & Friedman, 1998). Without methods for determining whether a service has been implemented as intended, researchers may not be able to explain a the results of an evaluation. Negative findings may be misinterpreted as evidence against a service's effectiveness when in fact the intervention was not implemented as intended or the service system did not have the capacity or structure to support effective services. Despite the need for such methods, there is much concern that our ability to conduct research on intervention fidelity is not very advanced at this time (Burns et al., 1998).

Within the Wraparound service model, attempts to reliably measure treatment fidelity are made difficult by the complexity and flexibility of the Wraparound process (Burchard & Bruns, 1998; Lourie et al., 1998). However, a fidelity measure of Wraparound is necessary because of the need for quality assurance within programs, concerns about the proliferation of programs that are not truly adherent to the Wraparound model, and the need for a reliable and valid tool to measure the nature of Wraparound interventions in future large-scale outcome studies (Burchard, Bruns, & Burchard, in press). The broad, long-term aims of the current project are to develop and validate a method for assessing treatment fidelity to the Wraparound approach for use by providers and researchers – the Wraparound Fidelity Index (WFI).

A pilot test of the WFI 1.0 yielded encouraging results, while also pointing to several needed revisions (Bruns, Ermold, & Burchard, 2000). Most importantly, the WFI 2.0, on which this paper reports, requires parents and resource facilitators to respond to questions on all 11 elements, while youth report on eight elements (Ermold, Bruns, Burchard, Wimette, & Suter, 2000). This allows fidelity assessment through a triangulation of multiple respondents. In addition, in WFI 2.0, all items have been revised to reflect better operational definitions of the elements, reverse-scored items have been constructed, and a detailed User's Manual includes scoring criteria for each item within each element. These revisions were intended primarily to increase item variability, which was found to be poor in a pilot test of WFI 1.0. The current study assesses ease of administration of the revised measure, as well as preliminary psychometric properties, including the measure's sensitivity, internal consistency, and interrater reliability.

Method

Measure. The WFI assesses adherence to the Wraparound core principles on a family-by-family basis, producing results that can be aggregated to provide a profile for a program or site. The interview is completed through brief, confidential telephone or face-to-face interviews that assess fidelity to 11 core elements of Wraparound from the perspectives of parents, youth (11 years of age or older), and resource facilitators (case managers). Respondents are asked to rate their agreement on a 0 to 2 scale for four statements within each core element of Wraparound, yielding total element scores ranging from 0 to 8. Elements assessed include:

- Youth and Family Team
- Community-based Services and Supports
- Parent and Youth Voice and Choice
- Cultural Competence
- Individualized Services
- Strength-based Services
- Natural Supports
- Continuation of Care
- Collaboration*
- Flexible Funding and Resources*
- Outcome-based Services*

Procedure. Six agencies providing Wraparound services for families with children experiencing emotional and behavioral disorders (EBD) participated in this pilot project. The sites were in Alaska (two sites), California, Indiana, North Carolina, and Vermont. The WFI was administered by phone by trained interviewers at the University of Vermont for all sites except North Carolina. At that site, trained project staff conducted interviews. Interviewers were not involved with service delivery at any of the six sites.

Participants. Interviews were conducted with 46 families. However, not all respondents were interviewed for every family. In fact, one site only interviewed parents and youth due to program constraints. Further, youth were only interviewed if they were 11 years or older. Therefore a total of 21 resource facilitators, 35 parents, and 21 youth were interviewed. For all families the mean youth age was 11.9 years (28% female). The youth were 41% Caucasian, 28% African-American, and 17% American Indian or Eskimo. Twelve percent did not report the youth's ethnic background or custody status. Custody status of the youth included parental custody (61%), state custody (17%), guardian or self-custody (6%), relative custody (4%). Resource facilitators reported that 39% of the youth were diagnosed with ADHD, 9% Bipolar Disorder, 7% Major Depressive Disorder, 7% Conduct Disorder, 7% Oppositional-Defiant Disorder, and 7% Post-Traumatic Stress Disorder. Ten percent of youth experienced another disorder and 2% did not have a diagnoses (no diagnosis was known and/or reported for the remaining 12%).

Results

Ease of administration

Mean administration time was found to be 14.5 min (*SD* = 5.7) for resource facilitators, 17.3 min (*SD* = 11.5) for parents, and 11.1 min (*SD* = 7.1) for youth. Unlike the first version of the WFI, participants did not express concern that the interview would be used as a performance review. Ideally, this should result in respondents feeling more willing to respond truthfully about fidelity of services. Two observations were of concern: (1) reaching families without telephone access, and (2) existence of items considered too long by interviewers and several respondents.

Overall findings

The mean element scores for all respondents are presented in Table 1. On a scale of 0 to 8 (0 = lowest possible fidelity score; 8 = highest), mean element scores for individual respondents ranged from a high of 7.57 (Voice and Choice, parent form) to a low of 4.87 (Youth and Family Team, youth form) with an overall mean of 6.44, and a standard deviation of 1.95.

** Youth do not respond to these elements because they typically do not have information about these aspects of service delivery.*

Internal consistency and cross-respondent agreement

Table 2 shows Cronbach's alpha coefficients for each of the elements for all respondents. Cronbach's alpha is a model of internal consistency, based on the average inter-item correlation. Overall alphas were moderate to high (.83 for resource facilitators, .78 for parents, and .90 for youth) and demonstrated a marked improvement over the WFI 1.0 (.73 for resource facilitators, .73 for parents, and .63 for youth). Internal consistencies within each element for individual respondents ranged from -.14 to .81. Finally, Table 2 displays Pearson correlation coefficients between resource facilitators and parents on the 11 element scores. The overall agreement between these respondents was much higher on the new version of the WFI (r = .73, p < .01) than the WFI 1.0 (r = .29, p > .05).

Discussion

Overall, this pilot of the WFI 2.0 demonstrated several improvements over the WFI 1.0. With regard to the sensitivity of the measure, the revised interview demonstrated greater variability of scores across both elements and respondents. The increased variability is likely a result of improved clarity and operationalization of items, and will be crucial if the tool is to be used as a statistical predictor of child and family outcomes in future studies. Despite the greater variability of scores, respondents continue to endorse some elements (e.g., Cultural Competence, Voice and Choice, Outcome-Based) very positively–possibly representing a ceiling effect. This finding is likely a result of high-quality Wraparound sites self-selecting for inclusion in initial WFI 2.0 pilot.

Table 1
Mean Element Scores for
Resource Facilitators (RF), Parents, and Youth

Elements	*RF*		*Parent*		*Youth*	
	M	*SD*	*M*	*SD*	*M*	*SD*
Voice & Choice	7.10	1.48	**7.57**	.95	6.24	2.23
Youth & Family Team	5.48	2.04	5.56	1.91	**4.87**	1.79
Community-Based	6.90	1.45	6.44	1.53	5.87	1.64
Cultural Competence	6.86	1.93	7.55	1.04	6.65	1.84
Individualized	6.59	1.55	6.86	2.00	5.40	2.29
Strength-Based	6.86	1.06	6.49	2.02	5.95	1.83
Natural Supports	5.38	1.83	5.20	2.63	5.21	2.66
Continuation of Care	7.24	.83	6.60	2.29	6.41	1.66
Collaboration*	6.62	1.20	6.26	1.66		
Flexible Funding*	5.67	2.15	5.63	2.48		
Outcome-Based*	7.19	1.17	6.50	2.14		

* Youth do not respond to these elements because they typically do not have information about these aspects of service delivery.

Table 2
Cronbach's Alphas for All Respondents
and Interrater Reliabilities (r) for
Resource Facilitators (RF) and Parents (P) on
All Elements of the Wraparound Fidelity Index 2.0

Elements	*Cronbach's Alphas*			
	RF n = 21	*Parent* n = 35	*Youth* n = 21	*RF-P* r
Voice & Choice	.59	.58	.76	.44
Youth & Family Team	.37	.18	.12	.62*
Community-Based	.28	.04	.03	.66*
Cultural Competence	.81	.37	.64	-.11
Individualized	.46	.74	.71	-.28
Strength-Based	-.14	.63	.56	.21
Natural Supports	.62	.73	.79	.51
Continuation of Care	-.14	.64	.32	.03
Collaboration***	.13	.06		.46
Flexible Funding***	.72	.77		.31
Outcome-Based***	.25	.76		.46
Overall	.83	.78	.90	.73**

Note: Interrater reliabilities represent Pearson Correlation Coefficients for the 14 families with both resource facilitator and parent respondents.
* = p < .05
** = p < .01
*** Youth do not respond to these elements because they typically do not have information about these services.

Internal consistency of the WFI 2.0 improved and alphas were in the good range for overall WFI scores, but alphas remain poor within some individual element scores. Most likely this results from having a small number of items for each element and low variability of scores on some elements. Agreement between parents and resource facilitators showed a great deal of improvement since the last revision, probably reflecting the focus on consistency in underlying element constructs across respondents. Future steps include continued psychometric assessment, including a construct validity test that compares WFI results to on-site expert ratings and to system-level characteristics. In addition, we will continue to seek collaborating sites nationally in order to develop a robust normative sample that individual sites can use for comparison, as well as to promote measurement of Wraparound fidelity and improvement of services to families and youth. Our Wraparound website is available at: www.uvm.edu/~wrapvt

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Using the Internet to Promote Research Collaboration for the Wraparound Fidelity Index 2.0

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Introduction

Wraparound is a comprehensive philosophy of care that includes individualized community-based services for children and their families (Burns & Goldman, 1999). This approach developed from the need to decrease institutionalized and often fragmented care for children and adolescents with severe emotional disorders (SED). Wraparound adheres to the set of principles recently adopted as policy for developing systems of care in all 50 states. These principles state that services will be individualized, family-centered, community-based, culturally competent, and provided in the least restrictive setting possible (Burns, Hoagwood, & Maultsby, 1998). Wraparound is guided by an environmental ecological model, which advances the belief that to promote healthy functioning the family, community, and service system must support the strengths of youth having SED. The Wraparound process is driven by ten essential elements:

1. Community-based
2. Individualized, strengths-based services
3. Cultural competence
4. Family "Voice and Choice"
5. Team driven
6. Flexible funding and resources
7. Natural Supports
8. Unconditional commitment
9. Interagency collaboration
10. Outcome-based

To date there have been 15 published outcome studies of Wraparound which suggest that this approach can be an effective way to meet the complex needs of youth with SED in community settings (Burns & Goldman, 1999). A recent national survey (Faw, 1999) reported that over 91,000 youth in 47 U.S. states and territories were receiving Wraparound services. Despite these large numbers it is unlikely that all of the agencies that reported using a Wraparound approach operated consistently within the definition and elements outlined here. Fidelity measurement is therefore essential for understanding the true effectiveness of the Wraparound approach.

Fidelity Measurements

Treatment fidelity refers to the extent to which an intervention was delivered as intended. With respect to service delivery, lack of adherence to protocols may explain why treatments in usual care settings may show few positive effects (Kazdin & Weisz, 1998). In research, a crucial step in demonstrating the effectiveness of an intervention is to ensure that it has been adequately described and implemented. Without the ability to measure whether a service was administered faithfully, it is extremely difficult to explain why a particular intervention did or did not work. For example, findings that youth are doing no better following an intervention could be misinterpreted to suggest that the program did not work when, in reality, the services may not have been delivered correctly. Attempts to reliably measure treatment fidelity are made difficult by the individualized and flexible nature of the Wraparound philosophy and process (Burchard & Bruns, 1998). Yet with the proliferation of agencies that report use of Wraparound to serve youth and families, it becomes critical to measure the extent to which their services match the stated definition, elements, and values of the Wraparound philosophy.

The Wraparound Fidelity Index (WFI)

The WFI 2.0 is an interview that measures the characteristics of Wraparound services that families receive on a family-by-family basis. The WFI is completed through brief, confidential telephone or face-to-face interviews that assess adherence to the core elements of Wraparound (Burns & Goldman, 1999) from the perspectives of parents, youth (11 years of age or older), and resource facilitators (case managers). The WFI measures the elements by having the respondent rate four questions or items that are regarded as essential for each element. Each item is scored on a three-point scale, where 0 = *No*, 1 = *Sometimes/Somewhat*, and 2 = *Yes*. Because there are four statements for each element, a respondent's total element score can range from 0 to 8.

An earlier version of this interview was the WFI 1.0 (Bruns, Ermold, & Burchard, 2000), which did not ask the respondents questions from each element. Only resource facilitators evaluated questions about youth and family team, community-based services, collaboration, flexible funding, and outcome-based services. Parents and youths reported on cultural competence and parent and youth voice and choice. All three respondents answered questions about individualized and strength-based services. This earlier version was pilot tested and demonstrated adequate reliability and validity (Bruns et al., 2000).

These findings, in combination with family and service provider focus groups, lead to two major changes that resulted in the WFI 2.0 version. First, efforts have been made to improve items and increase variability in responses by scripting items that are more stringent and specific to each element being assessed. Second, parents and resource facilitators are now asked questions on all of the Wraparound Elements while youths are asked to report on all elements except collaboration, flexible funding, and outcome-based services.

Collaborative Methodology

In order to initiate the validation of WFI 2.0 within a limited operating budget, an innovative collaborative research framework was devised that capitalizes on the need among service systems nationally for a tool to assess adherence to the Wraparound intervention. This includes recruitment of participants and collection of data in Vermont and by collaborating with other sites nationally. To date, response to preliminary findings on the WFI has been highly positive, and many programs and sites expressed interest in using the tool, even in a preliminary form. To meet this demand our research team created the Wraparound Vermont website, at: (http://www.uvm.edu/~wrapvt). The website contains a description of the WFI, examples of Wraparound reports, presentations on the WFI, and information on how to collaborate with our team.

The collaborative process involves two phases. The first step toward collaborating is for the site or program to submit a request for the WFI through an on-line form. The three versions of the WFI (parent, youth, and resource facilitator) are sent by mail. The second step occurs after the site examines the WFI and determines whether would like to collaborate with our team. At this point they return to the website and submit a Request for Collaboration (RFC), where they provide information regarding: (a) the questions they hope to answer by using the WFI, (b) their methodology, (c) how they will obtain consent, and (d) how they will insure confidentiality. Our research team reviews all RFCs to ensure the WFI will be used in an appropriate manner. Once the RFC is approved we send the site a detailed Memorandum of Agreement (MOA) and the WFI 2.0 Manual. Through the agreement, our team provides the WFI and related support while the collaborating programs agree to share the data they collect. The spreadsheet for data entry is also located on the website. Program staff who are working with us download the spreadsheet, enter the data from the interview forms, and then e-mail the data back to us. Participant names and other identifying information are never shared with our team.

Results

The response to this unique method of collaboration has been very favorable. Programs from across the country have submitted requests for the WFI forms (N = 42) and formal RFC's (N = 16). One of the exciting benefits of this approach is the opportunity to collect WFI data from diverse sources. The sites are located all across the United States, allowing us to analyze WFI data from different geographic locations. Further, the sites represent a variety of different organizations from universities and research centers to mental health agencies and practitioners. Our collaborators' reasons for requesting our measure are as diverse as the agencies themselves. Some sites have designed extensive multi-year research studies to examine the fidelity and effectiveness of Wraparound, while others are looking for ways to evaluate and improve the services they are offering in their communities. It is clear that the website approach is a promising method for validating the WFI 2.0 in a manner that is cost-effective yet adequately systematic and with an adequate sample size.

Discussion

The primary focus of our research team is to conclude the validation of the WFI 2.0. Due to the tremendous response we have received from our web site we expect to conclude the validation study by Fall 2001. To reach this goal we will need to meet several important milestones over the coming months. First, we look forward to collecting agency level data (e.g., years of existence of the program, caseload sizes, degree of pooled funding, and interagency collaboration) to compare to our fidelity findings collected from the three respondents. Second, we would like to conduct intensive on-site fidelity assessments by an expert or team of experts from the national research team that includes record reviews, child and family interviews, and surveys of service providers and administrators, to provide construct validation of the WFI. Third, with the development of other measures of treatment fidelity, we may have the opportunity to compare our instrument with other instruments, lending cross-validation support. Fourth, we will work toward obtaining a large and nationally representative sample in order to provide individual sites with normative comparisons for Wraparound fidelity. And fifth, we wish to increase the opportunities for communication among our community of collaborators. Ways to meet that final goal could include the maintenance of an e-mail listserve or electronic postings bulletin board on our web site. Ultimately we expected to engage in many more exciting activities by the conclusion of this project as the diversity and creativity of our collaborators point us to additional avenues of inquiry.

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The Relationship Between Flexible Wraparound Funds and Mental Health Outcomes

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Introduction

Wraparound is a treatment process that includes developing an individual service plan with families and ensuring a provision of needed services to maintain children at home (VanDenBerg & Grealish, 1996). It is based on individualized, needs-driven planning and consumer oriented services. Specifically, problems within particular life domains, which are key components to an individual's life, are addressed in order to assist in the full treatment intervention process.

In order to fully implement this individualized service plan approach, Riverside County Department of Mental Health created a flexible wraparound fund to purchase necessary goods and services for clients and their families. Thus, wraparound enhances support by providing funds to: (1) do "whatever it takes" to maintain children at home, (2) assist clients to develop appropriately, and (3) function well at home, school, and in the community.

This paper describes the results of research on flexible wraparound funding in the Riverside County Department of Mental Health. The following questions were addressed: (1) who are the clients who receive wraparound funds, (2) is there a relationship between receiving wraparound funds and improved mental health functioning, and (3) did the clients who received wraparound funding show a greater improvement in mental health functioning over time than did a comparison group?

Method

Wraparound data were collected between June 1998 and March 1999. During that time, 393 requests for funds were approved for 284 clients of Riverside County. Descriptive analysis of the data revealed that the majority of clients receiving funds were Caucasian, male, and voluntarily receiving services. The average age was 13. In addition, funds were primarily directed to financial and recreation/social supports. The overall average amount approved was $155.81. However, the most frequently requested amount ranged from $5-$50, closely followed by $101-$200.

To determine whether wraparound funding assists clients in demonstrating improved functioning in the home, school, and community, the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges & Wong, 1996) was utilized. The CAFAS measures the degree of disruption in the youth's current functioning on five subscales (Role Performance, Behavior Towards Others, Moods, Substance Abuse, Thinking). We used the following scores to rate the youth: a score of 30 for "severe" (disruption or incapacitation), 20 for "moderate" (persistent disruption), 10 for "mild" (significant problems or distress), and 0 for "minimal or no impairment" (no disruption of functioning). A total score was generated from the sum of the five subscales; this total score can range from 0–150. Improvement in functioning is demonstrated by a *decrease* in CAFAS scores.

Although 284 clients (non-duplicated) received funds, only those clients who had intake and discharge CAFAS data were selected for analysis. Additionally, clients must have received funds in between intake and discharge. This resulted in 60 clients for whom analyses were conducted ($N = 60$). In addition, in order to evaluate the possible effects of receiving funds, wraparound clients were compared with other clients receiving services from Riverside County Department of Mental Health. Clients were matched so that only those clients who were receiving services from the same providers and during the same time period as the wraparound clients were included in the analysis. In addition, only those clients for whom CAFAS intake and discharge data were available were included in the analyses. This resulted in 201 clients available for comparison ($N = 201$). Each group was examined separately to determine whether differences in the two time intervals occurred (i.e., did the groups

change over time?). A second analysis examined whether the groups differed significantly in these changes (i.e. did one group improve more than the other?). *T*-tests were conducted to determine statistical significance.

Results

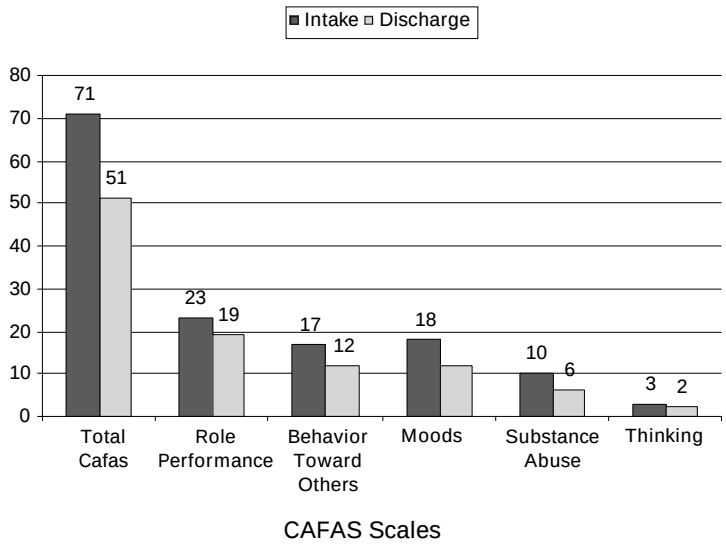
Results indicated that groups did not differ in average length of treatment, age, and legal status. However, there were some differences in terms of ethnic background and gender. The comparison group consisted of more males (69%) than the wraparound group (58%). In addition, while the comparison group had an equal proportion of Caucasians (41%) and Hispanics (43%), the wraparound group consisted of twice as many Caucasians (60%) compared to Hispanics (27%). Nevertheless, it was assumed that these differences in demographic composition will not have a strong influence on any findings.

A comparison of the Total 5-scale CAFAS scores (Role Performance subscale, Behavior Towards Others subscale, Moods subscale, Substance Abuse subscale, and Thinking subscale) at intake and discharge revealed significant improvement in functioning, as indicated by a decrease in scores, among those clients receiving wraparound funds ($p < .05$). In particular, improvement was shown on all scales, with ts > 2.92, $p < .05$, except the Thinking subscale ($t = 1.82$; $p > .05$). Figure 1 shows the observed improvement over time.

A comparison of the CAFAS scales at intake and discharge indicated that there was a significant improvement among clients who did not receive wraparound funds ($p < .05$). The results were essentially the same as those found with the wraparound clients; clients improved on all CAFAS subscales, with ts > 7.06, and ps < .05, except for the Thinking subscale ($t = .39$; $p > .05$). Figure 2 shows the observed improvement over time.

A comparison between the groups at intake revealed that there were no significant differences in levels of impairment ($p > .05$. That is, wraparound clients and the comparison clients had roughly the same level of functioning level when they began receiving services. At discharge, there were also no significant differences between the two groups ($p > .05$).

Figure 1
Change in CAFAS Scores for Wraparound Clients



Since the changes observed were essentially the same for the groups at both timeframes, no further analysis was possible. Therefore, the wraparound clients did not show greater improvement (as measured by the CAFAS) over time compared to the comparison clients. However, both groups demonstrated significant improvement.

Discussion

It was predicted that the provision of wraparound funds would augment the treatment process. Although greater improvement among clients who received wraparound funds compared to other clients was not found, this should not detract from the fact that improvement was shown among these clients. Furthermore, the present analysis does not measure other possible benefits that wraparound funds may produce, such as assisting clients in meeting their specific treatment goals, improving client-clinician relations, increasing the clients' and caregivers' sense of involvement and commitment to the treatment process, and decreasing restrictive out-home placements. Examination of these possible benefits is possible with more outcome measures obtained from the client, caregiver, and clinician and attempts should be made to collect such data.

In addition, it is important to consider how decisions are made with regard to which clients receive wraparound funds. Although there are specific guidelines for receipt of these funds, the decision ultimately lies with the clinician. As such, the availability of funds also involves a subjective judgement and decisions may be influenced by factors outside the guiding criteria.

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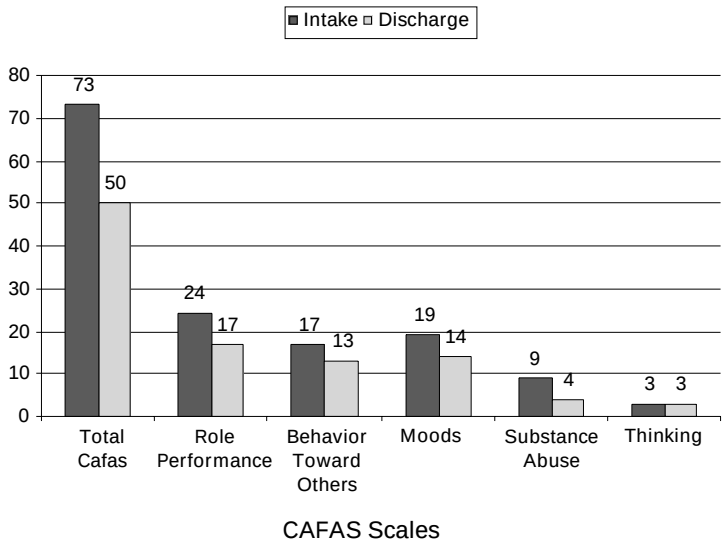
Figure 2
Change in CAFAS Scores for Comparison Clients



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Reductions in Legal Offenses of Delinquent Youth Enrolled in the Wraparound Milwaukee Program—One Year Follow-up

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Introduction

This study sought to determine if delinquent juveniles enrolled in the Wraparound Milwaukee program demonstrated a reduction in legal offenses following discharge from the program. Wraparound Milwaukee is a large, comprehensive, continuum-of-care program serving Milwaukee County, Wisconsin. Because approximately 70% of enrollees in the program have been adjudicated delinquent for various offenses, a reduction in offenses is an important indicator of improved community safety. Previous studies have found that youth demonstrated a reduction in legal offenses and adjudications during enrollment in the Wraparound Milwaukee program (Seybold, Gilbertson, & Edens, 2001). This study advances the literature by determining whether youth continue to exhibit a reduction in offenses after they are disenrolled from the program.

Method

The sample consisted of 180 delinquent youth enrolled in the Wraparound Milwaukee program. Youth included in the sample had been enrolled between January 1, 1998 and April 31, 1999, had been in the program for at least five months, and been discharged by November 30, 1999. These inclusion criteria resulted in data collection on 85% of all delinquent youth enrolled within this period. The 15% of delinquent youth who were excluded had been enrolled for less than five months. The average length of enrollment for youth included in the study was 12.2 months, with a range of 6-22 months.

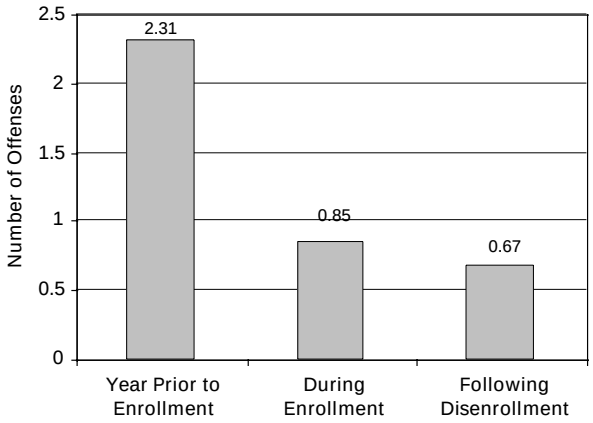
Data were obtained from court records. All offenses were classified into six broad categories: (1) sexual offenses, (2) assaults, (3) weapons offenses, (4) property offenses, (5) drug offenses, and (6) other offenses, which primarily included disorderly conduct. Offense data for the period during enrollment were standardized to a "per year" number of offenses. This transformation allowed for enrollments of less than or greater than one year to be compared to the measurement periods before enrollment and following discharge. Post-disenrollment data included offenses occurring within one-year following the disenrollment date. Data for youth disenrolled to corrections (17%) were not included in the average number of offenses following disenrollment because the youth were no longer in the community. The data for these youth were used to determine the average number of offenses before and during enrollment. Data were analyzed using a repeated measures analysis of variance.

Post-hoc analyses were conducted to determine if the sample of youth exhibited a reduction in symptoms as reported on the Child Behavior Checklist (CBCL/4-18; Achenbach & Edelbrock, 1991), the Youth Self-Report (YSR; Achenbach, 1991), and on the Child and Adolescent Functional Assessment Scale (CAFAS; Hodges & Wong, 1996). A repeated measures analysis of variance was used. An additional post-hoc analysis was conducted to determine if child or family demographic variables, clinical instrument scores at intake, service utilization, or offense history were predictive of discharge to a correctional facility. A stepwise discriminant analysis procedure was used for this analysis.

Results

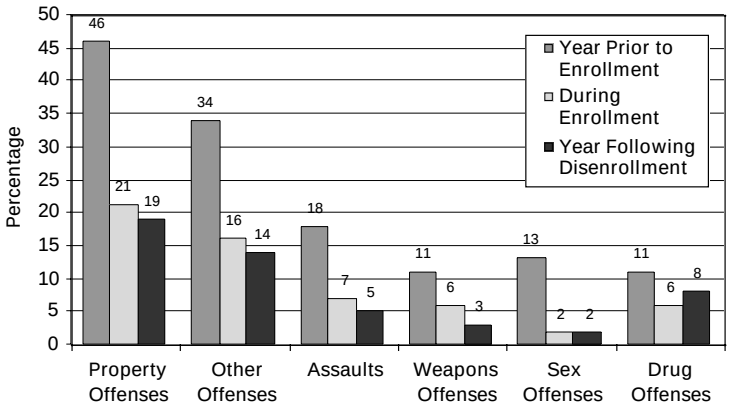
Figure 1 indicates that the average number of offenses per year was reduced both during enrollment and for one year following disenrollment. The reductions from the year prior to enrollment baseline were significant ($p < .001$). On average, youth began the program having committed more than two offenses during the year prior to enrollment. This number fell to under one offense per year during enrollment, and was maintained during the year following disenrollment.

Figure 1
Average Number of Offenses per Client Prior to Enrollment, During Enrollment, and Following Disenrollment.



A more detailed presentation of specific offense reductions is presented in Figure 2. This graph demonstrates the percentage of youth committing specific types of offenses during the year prior to enrollment, during enrollment, and the year following enrollment. The data indicated that, with the exception of drug offenses, the proportion of youth involved in the various offense types was reduced below the baseline and remained low during the year following disenrollment.

Figure 2
Percentage of Youth Committing Specific Offenses Before, During, and Following Enrollment in the Milwaukee Wraparound Program



A repeated measures analysis of variance indicated that youth in the sample exhibited significant symptom reductions during enrollment as reported on the CBCL (F (50) = 16.27, p < .001); YSR (F (29) = 11.14, p < .001); and CAFAS (F (90) = 39.66, p < .001). A stepwise discriminant analysis procedure was used to determine if demographic, clinical, and historical juvenile justice variables were predictive of disenrollment to corrections. The results indicated that two variables were predictive of corrections placement: a previous history of assault charges (F (180) = 7.93, p < .05) and lower YSR Social Competency scores at intake (F (95) = 6.96, p < .05).

Discussion

This pilot study suggests that community safety was affected in a positive way while youth were enrolled in the Wraparound Milwaukee program. There were significantly fewer offenses committed both during enrollment and following disenrollment when compared to one year prior to enrollment. Similarly, with the exception of drug offenses, all offense areas were reduced.

This data collection effort will continue to include a greater proportion of youth enrolled in the Milwaukee Wraparound program. Initial collection efforts are also underway to collect 3-year follow-up data on these youth. Future analyses will include survival analysis techniques, and will strive to contribute to the literature in the area of understanding and predicting recidivism in this group of youth.

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