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Collaborative Implementation of a Sequenced Trauma-Focused Intervention for Youth in Residential Care

Charlotte Lyn Bright, PhD¹, Ramesh Raghavan, MD, PhD², Matthew D. Kliethermes, PhD³, David Juedemann, LCSW⁴, and Jerry Dunn, PhD³

Charlotte Lyn Bright: cbright@ssw.umaryland.edu

¹University of Maryland School of Social Work, 525 West Redwood Street, Room: 3W05, Baltimore, Maryland 21201

²George Warren Brown School of Social Work/School of Medicine, Washington University in St. Louis

³Children's Advocacy Services of Greater St. Louis

⁴Evangelical Children's Home, St. Louis, MO

Abstract

Few evidence-based interventions have been developed or tested with youth in residential care. Moreover, models for transferring implementation knowledge from clinical trials to service settings are sparse. This paper addresses the lessons learned about addressing this technology transfer gap by presenting a case study of a collaborative effort to implement a trauma-informed pilot program with youth in residential care. Key considerations are the collaborative nature of implementation efforts, the requirement of organizational support, the need for interventions to be sensitive to the child and the milieu, and the lack of fit between Medicaid reimbursement and evidence-based intervention.

Keywords

evidence-based practice; implementation; residential treatment; adolescent; trauma

Introduction

Increasingly, child welfare professionals are encouraged to adopt and implement evidence-based practices to promote safety, permanence, and well-being (Barth, 2008; Chaffin & Friedrich, 2004). The California Evidence-Based Clearinghouse for Child Welfare (2006-2009), for example, has identified dozens of interventions as “promising,” “supported by research evidence,” or “well-supported by research evidence.” While such efforts are directed toward raising awareness among the provider community regarding the availability of evidence-based practices, there are few efforts directed at providing concrete guidance on exactly how to adapt and deploy these evidence-based interventions within clinical settings. Such guidance is critical for residential treatment centers (RTC), which treat youth with severe emotional and behavioral disturbances (Garrison & Daigler, 2006). Currently, few models exist for transferring implementation knowledge from clinical trials to residential care facilities (Rivard, et al., 2003) (Rivard et al., 2003). This paper addresses the lessons learned while

implementing a trauma-informed pilot program with youth in one RTC using a collaborative adaptation and implementation approach.

Context of Implementation

This project established a collaborative relationship among a youth residential treatment center, a university research center, a community-based children's mental health agency, and the state's Medicaid and mental health departments. These diverse organizations shared a desire to improve the quality of care for youth in residential treatment and to assure the sustainability of quality improvements. Because the primary aim of the pilot project was to conduct and disseminate scholarship on the process of implementation in a residential setting, collaborators received human subjects approval from two institutional review boards prior to initiating the intervention, and also implemented consent and assent procedures, as discussed below.

Pilot Team

The primary drivers of the pilot project formed a pilot team, which met monthly throughout the planning and implementation process. The pilot team included four members of the administration and staff of the RTC, an administrator and a clinician from the community-based health agency, and two university-based researchers. Each member of the pilot team contributed unique expertise. The RTC staff advised on the children and their needs, the mental health professionals shared knowledge about trauma-focused interventions, and the researchers contributed information on intervention development and implementation science.

The overall aim of the pilot team was to elicit practice-based evidence on children's needs and environments, identify specific evidence-based practices suitable for these children, and deploy such practices within the RTC under close guidance and ongoing learning. Because children in residential settings are known to have experienced traumatic stress (Rivard, et al., 2003; Tarren-Sweeney, 2008), trauma-focused treatment was prioritized as a dominant need among children in residential care. Using this issue as its focus, the pilot team chose a sequenced implementation strategy of two interventions, Structured Psychotherapy for Adolescents Responding to Chronic Stress (DeRosa & Pelcovitz, 2006) and Trauma-Focused Cognitive Behavioral Therapy (Cohen, Mannarino, & Deblinger, 2006). This particular sequence of interventions was selected because team members from the RTC and the mental health agency felt the need to teach children strategies to gain mastery and mindfulness before engaging in reduction of trauma symptoms. The intervention strategy is described in more detail below.

Residential Facility and Resident Description

The residential treatment center serves youth with mental health and behavioral needs, as well as a history of child maltreatment and previous out-of-home placements. Youth residents live in 10-bed secured or open living units, segregated by gender. Living units are staffed by Youth Care Workers who have at least a high school diploma. These staff members supervise and assist residents in daily activities, organize recreational activities, administer medications, and are first responders to crises occurring in the units. Each resident is assigned a Care Manager, generally a master's-level social worker. Care Managers coordinate needed mental health, behavioral, and educational services, and arrange visits between youth and family members or guardians. The Care Manager may also provide direct support to youth, intervene in crises, and lead treatment groups. All residents participate in individual therapy with a master's level, licensed therapist. Therapy generally follows problem-solving and task-focused models. Nearly all youth residents also participate in cycles of group work, following a structured skill-building curriculum. Groups are usually co-facilitated by Care Managers or therapists. Additionally, residents have access to on-site psychiatric, medical, and educational services.

During fiscal year 2008, the center served a total of 91 youth, an average of 37.5 per day. The mean length of placement was 141 days for each child. Youth were 15.2 years old on average, 55% were female, and about two-thirds were African American. About three-fourths of the youth admitted in fiscal year 2008 had at least one Axis I mental health diagnosis, most commonly bipolar and mood disorders.

Inclusion and Stakeholder Participation

As part of the research process, the pilot team established inclusion criteria for youth participation in the intervention. Specifically, participants had to be between the ages of 11 and 17, have evidence of trauma in their personal histories, be resident in the identified residential treatment center, be likely to remain in placement at least six months to permit sufficient time for completion of the intervention, have no known history of perpetration of maltreatment (all interventions were conducted at the community-based mental health agency, and its procedures forbade the presence of offenders on its premises), and be judged by RTC staff as able to be safely transported to off-site treatment.

Many of the youth in the residential treatment center are referred for services by workers at the public child welfare agency and their affiliated subcontractors. These children are in the care and custody of the state agency due to substantiated incidents of child abuse or neglect in their histories. The permission of these referring workers was therefore required for the youth to participate in the intervention. To secure this permission, members of the pilot team approached the state child welfare administration, who agreed to the children's participation. Prior to implementation, pilot team members visited child welfare workers to discuss the intervention, describe the referring workers' role in consenting to the participation of the children in their custody, and respond to questions about the treatment protocol.

Because sustainable implementation is an ecological process involving multiple systems and decision-makers (Raghavan, Bright, & Shadoin, 2008), a principal goal of the pilot team was to obtain widespread buy-in among staff of the RTC who cared for study participants on a daily basis. This was achieved through meetings between pilot team members and the RTC staff. At an initial meeting prior to the implementation of the intervention, team members presented information on the intervention and on its delivery, and explained the treatment protocol, which included transporting youth from the RTC to the mental health agency for sessions and collecting data on their mental health and behavioral symptoms. Residential treatment staff asked questions about the intervention, asked for clarification on procedures, and offered their support for the pilot project. Meeting attendees agreed to work together to improve the care of youth dealing with the aftermath of traumatic events.

Pilot team members maintained ongoing communication with the RTC staff caring for study participants. One way in which this occurred was through the feedback provided by team members who were on the staff of the RTC to both their colleagues at the facility and to the other pilot team members. This regular communication was invaluable in maintaining the integrity of the intervention and the data collection process, in determining eligibility, and in supporting participation in the intervention despite other scheduling needs in the milieu. Another form of communication between the pilot team and the residential treatment staff occurred during regular staffing meetings, held every 30 or 60 days (depending on the youth classification at the RTC) to discuss each resident. The clinician who delivered the intervention was a member of the pilot team, and he attended these staffings to provide input on the child's progress in treatment, discuss the impact of trauma on youth functioning, and respond to questions or concerns about the resident's participation in the intervention.

Collaborative Implementation of the Intervention

Following identification and adaptation of the intervention, the pilot team developed into a collaborative implementation group. Residential treatment center staff identified youth appropriate for the intervention, conducted preliminary screening, informed consent/assent to participate in the study, and referred eligible youth to the community-based treatment agency (intervention site). Clinicians at the intervention site completed assents for treatment and study-related assessments, and delivered the intervention. Coordination between the RTC and the intervention site was established through a study coordinator who monitored administration of assessment instruments and “handoffs” between the two agencies involved in this study. University researchers arranged financing for study participants through the Medicaid program, and worked with the state's mental health department to cover transportation costs. The researchers developed a framework to track and quantify the true costs of mental health service delivery. Over the ten months of the study, a total of 143 sessions were delivered to nine study participants.

Intervention Description

The sequenced set of interventions used here was chosen based on existing literature demonstrating their potential to improve outcomes for this population. These interventions were modified to be used in conjunction with one another and to be conducted in individual (rather than family or group) sessions. The sequence consisted of elements from Structured Psychotherapy for Adolescents Responding to Chronic Stress (SPARCS; DeRosa & Pelcovitz, 2006) and Trauma-Focused Cognitive Behavioral Therapy (TF-CBT; Cohen, Mannarino, & Deblinger, 2006). This modular approach, in which components of each evidence-based practice are begun and ended according to each client's progress and needs, has the potential to facilitate efficient and effective service delivery (Chorpita, Daleiden, & Weisz, 2005).

Each participant completed one 50-minute therapy session per week. The intervention was conducted in a minimum of six months to a maximum of nine months. The endpoint of these sessions was not standardized; rather, therapy was terminated when the individual gained control of his or her symptoms and his or her mental health needs were addressed. Therapy was provided by a licensed psychologist who is trained in both SPARCS and TF-CBT. He was also a member of the pilot team.

The intervention was delivered in 12 modules. The first two modules of the treatment program focused on building a therapeutic relationship, providing education about the prevalence and impact of stress and trauma, introducing the concept of maladaptive coping strategies, and explaining the importance of monitoring personal levels of distress and self-control. Both TF-CBT and SPARCS focus on education on trauma; however, SPARCS tends to focus on general information around trauma, while TF-CBT provides greater specificity about different types of trauma (e.g., sexual abuse). The components related to maladaptive coping strategies and monitoring distress and self-control are SPARCS components.

The middle stage of the treatment program consisted of multiple modules focused on the development of coping, problem solving, and communication skills. Specific skills addressed included components from TF-CBT (i.e., identifying and expressing emotions; understanding interactions between thoughts, emotions, and behaviors; relaxation skills) and SPARCS (i.e., mindfulness; distress tolerance; support-seeking; problem solving; effective communication). It should be noted that there is some overlap between TF-CBT and SPARCS in their mutual emphasis on mindfulness and distress tolerance.

The final stage of the treatment program focused on processing specific traumatic experiences and consisted almost entirely of elements from TF-CBT. In this stage, treatment activities

included processing the client's memories of past traumatic events and identifying and restructuring unhealthy beliefs that they may have about the trauma (e.g., "The sexual abuse was my fault because I didn't fight hard enough"). During this segment of treatment, time was also devoted to the development of personal safety skills, addressing termination issues, and preparing for graduation from the treatment program.

Financing the Intervention

Two initial financing challenges presented themselves to the pilot team. First, the sequenced, modular approach to providing evidence-based interventions used in this pilot did not conform to the requirements of the state's Medicaid agency. This intervention was designed as an addition to existing interventions delivered by staff at the residential treatment center. Because all youth participants were in Medicaid-funded residential care, additional services provided by off-site clinicians were not eligible for Medicaid reimbursement. Second, the actual delivery of the evidence-based interventions occurred at the mental health agency, an arrangement which required transportation of youth from the residential treatment center to the mental health agency. Existing funding mechanisms did not cover costs of transportation to specialized facilities for purposes of treatment.

In order to solve these problems, the pilot team communicated with state agencies about the issues and plans involved in this project. After learning of the rationale for the intervention and receiving intervention protocols, the state Medicaid agency agreed to treat this pilot as a quality improvement initiative, and developed a specific financing agreement with the pilot team to permit reimbursement for multiple service providers across therapeutic formats. The state's Department of Mental Health agreed to assist with transportation costs, providing reimbursement to the residential treatment facility for its costs related to transportation.

No financing was available for implementation activities undertaken by members of the pilot team. Outside the time the clinician spent with participants, pilot team members volunteered their efforts in the interest of improving services to children.

Lessons Learned

Through the course of implementation of this pilot, the team learned a number of lessons about the complexity of implementing an evidence-based, sequenced intervention across two organizations. In the hope that these pieces of information will be instructive to other service providers, administrators, and policymakers, they are described here.

1) A collaborative implementation team is essential

Implementation efforts require expertise in the population, in clinical interventions, and in the science of implementation. Effective communication is an integral part of the implementation process. Initially, the pilot team members engaged in planning activities, making decisions about the design of the pilot study through consensus. As the pilot study progressed, the team continued to meet, providing support and brainstorming solutions to problems as they arose. The clinical, population, and research information shared within meetings was critical to the team's ability to maintain intervention efforts. Regular communication allowed the pilot team to stay abreast of questions and impediments to progress and to strategize about needed actions. For example, team members used meeting time to discuss how to improve recruitment efforts, to review potential participants' information and determine eligibility, to resolve issues around youth scheduling conflicts, and to strategize about communication with other stakeholders, as described in more detail in the next point.

2) Implementation involves organizational buy-in

Implementation research involves treating not only research subjects, but also organizations as co-participants. Prior to beginning recruitment, pilot team members spoke with clinicians, line staff, and administrators within the partner organizations about the intervention and the research. These conversations helped shape the implementation process and allowed those affected by changes in practice to discuss the nature and extent of these changes. The input of public child welfare workers and administrators and of residential treatment staff was invaluable to instituting procedures for implementation of the intervention and to allowing child access to these services.

3) Interventions must be sensitive to the needs of both the child and the milieu

Transporting participants from their residential setting to therapy sessions limited youth participation in the intervention, and proved to be a very problematic element of this pilot study. Several youth who were determined to be eligible for the intervention declined to participate, or prematurely terminated their participation, citing transportation off-site as an issue. Specifically, they expressed concerns about the burden of adding appointments to already busy schedules and about missing activities at the residential treatment center. Moreover, inclusion criteria associated with providing services off-site limited participation; youth who were judged to be at risk of elopement or who had perpetration of abuse in their histories could not be transported to the community-based mental health agency.

On the other hand, there were benefits associated with providing trauma services off-site at an agency specializing in just such service provision. This location provided a “containment” site for the trauma processing, which in and of itself can be beneficial. The participation of an outside clinician in making decisions and reviewing plans for youth in residential care allowed for the incorporation of a different perspective, which can complement services and lend a more comprehensive perspective to treatment.

To resolve the identified issues, children could potentially be served by trained clinicians within the residential treatment center itself, and/or the milieu could be modified to make overall care more trauma-informed, for example by training treatment staff to provide some components of the intervention. However, many residential treatment facilities might not be in a position to house specialist staff within their own organization. It is likely that staffing patterns at many residential treatment facilities will require the transport of youth elsewhere for services. Transportation poses considerable implementation challenges, both logistically and financially, and interventionists and the residential treatment staff will need to work together to find an approach that best serves the needs of the youth they serve.

4) Medicaid reimbursement does not fit well with the delivery of an evidence-based intervention

For decades, researchers have expressed concern that Medicaid reimbursement rates are inadequate given the costs of care (Simms & Kelly, 1991). However, a more immediate issue for implementation of a new intervention is that evidence-based practices oftentimes are not included in the reimbursement codes determined by Medicaid. In this study, a poor fit existed between the various elements of the treatment plan – actual clinical service delivery, the number and types of clinicians involved, and session lengths – and Medicaid regulations.

The solution to these problems as undertaken by this pilot team was to create a special arrangement with the state Medicaid agency for purposes of quality improvement. Unfortunately, this particular strategy is neither generalizable nor sustainable. Other states may not have the flexibility to adopt a similar approach, and this financing strategy is only a short-term solution in any case. The experience of this team suggests that higher reimbursement rates

alone are unlikely to sustain evidence-based practices unless the current billing codes for Medicaid providers are changed. The nature of the change will depend on the specific practice being deployed, and codes that follow evidence-based practice – as opposed to forcing practices to conform to pre-existing codes – are necessary for sustainable quality improvement.

Conclusions

Residential treatment services for youth involve a complex network of referral, payer, and regulatory agencies and collaborative professionals within and outside the organization. Given this context, it is unreasonable to expect that individual clinicians have the capacity to implement evidence-based practices without numerous sources of support. The pilot team described here and its collaboration with multiple agencies is an example of involving diverse stakeholders to collectively identify and overcome the various barriers that are known to exist to implementing evidence-based practices (Ganju, 2003).

Providing services outside the residential treatment center, however, has resulted in some unanticipated barriers to participation. Implementation in the residential milieu itself is not without challenges, particularly in terms of the difficulty and expense associated with training and supervising staff in these interventions. It may be an option to promote greater access to treatment, however. On the other hand, service providers operating in clinic or community-based mental health settings may have better organizational capacity and specialized skills to implement evidence-based interventions. Whether or not services are provided on-site is likely to reflect local practices. We highlight this difficulty in order to assist others in making informed decisions.

Youth in residential treatment present a number of challenges for practitioners, including behavioral and emotional difficulties, multisystem involvement, and complex trauma histories (Tarren-Sweeney, 2008; Zegers, Schuengel, Van, & Janssens, 2008). Staff in these environments must also contend with pressure to document favorable outcomes, contain costs, and shorten stays in an era when residential treatment itself is faced with considerable challenges (O'Malley, 2004). Thoughtful implementation of evidence-based practices to treat trauma in this population is an important step toward meeting mandates and improving quality of care for youth. Successful partnerships between academic researchers and service delivery systems can facilitate improvements in adoption and implementation of appropriate interventions (Lindamer, Lebowitz, Hough, et al., 2009). This case study disseminates one such effort in hopes that others may benefit from the experiences described here, and in doing so expand the uptake of evidence-based practices within residential treatment settings.

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