

WORKING P A P E R

A Collaboration Between Researchers and Practitioners to Improve Care for Co-Occurring Mental Health Disorders in Outpatient Substance Abuse Treatment

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Abstract

Clients in substance abuse treatment often have co-occurring mental health disorders; however, substance abuse treatment providers may lack training and resources to provide for the mental health needs of clients. To address the gap in effective service provision for clients with co-occurring disorders in substance abuse treatment programs, a research organization and a substance abuse treatment organization collaborated to conduct a community-based intervention trial. By detailing our collaborative process and lessons learned surrounding the design and evaluation of an intervention to improve care for co-occurring disorders, our intention is to facilitate the collaborative efforts of other researchers and providers.

Significance of Improving Care for Co-Occurring Disorders

The provision of effective care to persons with co-occurring mental health and substance use disorders represents a challenge to behavioral health services providers and researchers (CSAT, 1994; Friedman et al., 1999). Clients in substance abuse treatment programs often have co-occurring mental health disorders, typically affective and anxiety disorders (Kessler et al., 1996), and community-based substance abuse treatment programs have noted increases in numbers of clients with co-occurring mental health problems (Lamb et al., 1998). These problems can complicate substance abuse treatment and have consistently been associated with poorer substance abuse treatment outcomes (Broome et al. 1999; Hasin et al. 2002; Ravndal & Vaglum, 1994; Tsuang et al., 1995).

Individuals receiving treatment for substance abuse who also have depression and anxiety disorders can benefit from mental health treatment (Mason et al., 1996; McGrath et al., 1996; Nunes et al., 1998; Nunes & Levin, 2004). However, few people admitted to substance abuse treatment are identified as having co-occurring mental health disorders (Hien et al., 1997; SAMHSA, 1999). Many substance abuse treatment providers lack the training and resources to provide for the mental health needs of clients with co-occurring disorders (Grella & Hser, 1997).

To address the gap in effective service provision for clients with co-occurring disorders in substance abuse treatment programs, researchers from the RAND Corporation in Santa Monica collaborated to field a community-based intervention trial with Behavioral Health Services (BHS), a substance abuse treatment organization providing residential and outpatient services in several sites in Los Angeles County. For this trial, we developed an intervention to improve the quality of mental health services in outpatient substance abuse treatment programs and evaluated the impact of that intervention. All activities were conducted in the context of a

researcher-practitioner partnership, a working collaboration between RAND researchers and BHS.

We provide an overview of the intervention trial to provide a foundation for discussion of our collaborative partnership in this study. We believe that the details of our collaboration and the lessons learned will be of benefit to others who endeavor to forge research-practitioner partnerships to improve behavioral health care in community-based settings.

Overview of Our Intervention to Improve Care for Co-Occurring Disorders

The intervention was innovative in a number of respects, particularly in that it was not an “off-the-shelf” product transplanted into a community-based setting. Rather, it was developed through a collaborative relationship between researchers and providers, and synthesized relevant theoretical literature, clinical experience, and existing effective interventions. BHS provider staff participated in the development of the intervention and delivered the intervention. The intervention was innovative additionally in that it was designed to be sustainable without investment of significant additional professional staff time, and to continue at the conclusion of the research project without the involvement of the researchers. Key elements of the intervention were training and supervising substance abuse treatment staff to recognize and provide appropriate treatment for co-occurring disorders; educating and activating clients; and facilitating linkages with community mental health providers. Details of the intervention and its implementation are described by Hunter (Hunter et al. in press) and Watkins (Watkins et al., 2004).

Overview of the Evaluation of Our Intervention

The substance abuse treatment community perceives a surplus of “efficacy” studies; typically, randomized controlled trials (RCTs) (Carroll et al. 2002; Lamb et al., 1998).

Conversely, treatment providers perceive a deficit of “effectiveness” studies, where interventions are fielded and evaluated in real-world practice settings and therefore yield findings relevant to those settings (Lamb et al., 1998). When interventions are fielded in actual practice settings, their external validity (i.e., generalizability of results) is enhanced (Glasgow, Lichtenstein & Marcus 2003). Behavioral health care providers and clients are interested in and benefit from the effects of treatment as they are delivered in usual-care settings as opposed to highly controlled settings (Hohmann & Shear 2002; Tunis et al. 2003; Wells, 1999).

While efficacy studies typically employ experimental designs (randomized controlled trials), community based intervention research often relies on quasi-experimental approaches because randomization is often not practical or feasible in usual-care settings. In the case of this study, the number of clients in the participating programs were too small to support randomization of clients to treatment and control conditions within programs; to do so would have presented considerable risk of “contamination” to the control condition. Random assignment of individuals to treatment and control conditions from a centralized location or waiting list also would not have been possible since there was no centralized point of intake nor waiting lists for treatment slots.

Our study used a quasi-experimental design with a no-treatment control group and pre-test and post-test measures. This design is frequently used in applied research settings and permits reasonable causal inferences about the effect of an intervention on hypothesized client outcomes (Cook & Campbell, 1979). The study involved three outpatient substance abuse treatment facilities within BHS, one serving as the intervention site and two serving as comparison sites. We conducted both an outcomes evaluation and a process evaluation. The outcomes evaluation relied on client-level quantitative data obtained through structured

interviews. Assessments of client-level outcomes that were hypothesized to be associated with participation in the intervention were conducted by research staff at intake to the treatment programs and six months following intake. The process evaluation used both qualitative and quantitative data obtained through semi-structured interviews with counselors and program administrators, structured interviews with clients at baseline and follow-up, and program administrative data. Through case mix adjustment, knowledge gained through the process evaluation, and careful selection of the treatment and comparison group programs to be as similar as possible in terms of client and program characteristics, we attempted to mitigate the threats to internal validity that may be especially characteristic of non-randomized designs.

Our Collaborative Relationship: Development of an Intervention to Lessons Learned

Researchers have traditionally approached routine care providers for access to a target population served by the provider. Providers have typically played a small role in decision-making about the goals of the research, the content and format of interventions, and the study design, and researchers often gained little knowledge of the treatment organization or of its staff or facilities. Although collaborations to bridge the gap between practice and research have proved challenging (Lamb et al., 1998), research to improve care in routine practice settings requires a close working relationship between the researchers and the provider, including the program directors and patient care staff. The researcher-practitioner collaboration was central to all aspects of this study. We discuss key challenges and solutions reached in designing and implementing the intervention and evaluation in the context of our collaborative relationship.

Designing and Implementing the Intervention

Executives throughout BHS strongly endorsed the study from the earliest stages of grant proposal development and collaborated in proposal development. Designing the intervention

provided the opportunity for researchers to begin the collaborative process at the program level with staff members. Program directors and staff recognized that improved services for their clients with co-occurring disorders were needed. This potential to improve care for their clients provided a significant motivation to participate in the face of anticipated burdens of participating in a research study.

The researchers aimed to incorporate the expertise and experience of clinical staff in the design of the intervention and reached out to staff who had been working with clients with co-occurring disorders. Together, they formed a design group to review the literature and model programs; incorporate elements of existing programming at BHS around co-occurring disorders; and plan the curriculum, staff training and implementation. Intervention site staff reviewed drafts of the intervention protocol and provided critiques and suggestions that were incorporated before implementation. The group also included the project's collaborators at the Los Angeles County Department of Mental Health (DMH) who were familiar with both BHS and RAND. This successful collaboration on the intervention at the outset of the project laid the foundation for future collaboration needed to implement both the intervention and the evaluation component of the study.

Staff training for the intervention took place over a twelve-week period, was designed to be interactive between counselors and researchers, and allow ample time for counselors in the participating sites to gain comfort with the protocols. At the conclusion of the staff training, case conferencing sessions provided opportunities for further development of mental health skills, interaction with clinical staff at DMH around specific clients, and trouble-shooting. In addition, the process evaluation entailed obtaining feedback from site staff on the intervention and its

implementation; this process provided staff with another opportunity to raise issues and concerns.

Feedback from counselors and other staff regarding implementation of the intervention was generally positive. This favorable feedback may have resulted from the extensive collaboration and training that was invested in the implementation component of the study to ensure the fit of the intervention with other clinical services. The expertise of the counselors may have facilitated their uptake of training, thus further supporting favorable feedback. Positive feedback may have also resulted from the counselors' recognition that their clients need enhanced services to address unmet needs. Additionally, because substance abuse treatment counselors receive limited compensation yet have considerable responsibilities working with clients whose life challenges are not limited to drug and alcohol abuse and dependence, the counselors may have appreciated the attention and respect of the research team in collaborating to field the intervention.

Evaluating the Intervention

Participating program staff members were not involved in designing the evaluation, but a series of pre-tests of the client screening (e.g., clients in the study must have screened positive for a co-occurring disorder) and data gathering protocols allowed staff to become familiar with the protocol and suggest modifications to the researchers. Staff were asked to assist with several tasks related to the conduct of the evaluation: subject recruiting, to make data from administrative and clinical records available to researchers, to participate in focus groups as part of the process evaluation and assist with interpretation of the results. Throughout the study, a small financial stipend was paid to staff who assisted with the evaluation as compensation for the time they devoted to it. Below, we discuss challenges related to subject recruiting and use of

administrative and clinical data, as these aspects were associated with a number of challenges, were especially important to the study, and are key aspects of collaborative intervention trials.

Recruiting subjects. The program staff had no prior experience with research and, like other practitioners, they were not familiar with constraints such as human subjects protections, sample size requirements, subject selection bias, contamination, response bias and other methodological concerns of the researchers who were charged with implementing a quasi-experimental design to evaluate the intervention. On the other hand, staff members were keenly aware of their program constraints, such as large caseloads, and clinical issues presented by potential clients at the time of intake. Staff members knew that standard intake interviews were already lengthy and that candidates for treatment often do not read well, are hesitant and slow in completing paperwork, and have little time and motivation to participate in non-essential activities associated with treatment. They also knew how important it is to establish some rapport with the client at the intake stage. Our protocol for using counselors to recruit clients at intake to treatment to complete a self-administered screening questionnaire as part of that intake was a notable burden on staff responsible for client intake.

To protect subject privacy, the RAND IRB required that program staff, not research staff, make the initial contact about the study with clients to obtain their consent, before research staff could contact them. In addition, to avoid potential for coercion, the clients could not be compensated for agreeing to be contacted by researchers, and the program staff could not be paid for each subject they recruited. These constraints presented a significant challenge to the recruiting process, and early pre-testing confirmed the counselors' concern that their clients would not be interested and the researchers' concern that not all clients would be approached by staff. Analyzing the problems in debriefings with program staff, and responding to some of the

problems they identified, helped to solidify a working relationship with the programs. The RAND IRB agreed to allow a small payment to each client for completing a study eligibility screener, and, in addition to a lump sum payment to the counselors, we added a small payment for each screener packet they offered to an intake client. The problem of the screener self-administration remained, with a small number of clients not invited to participate because they could not read well enough to complete the form.

After pretests and dry runs with the participating programs, procedures were finalized and all intake staff were trained on the final subject recruitment protocol and associated record keeping and administrative procedures (e.g. transmitting completed screeners to RAND).

Staff turnover, which occurred throughout out the subject recruitment period, also created challenges for recruiting all eligible subjects. When a program was short staffed, remaining staff sometimes could not spare the time to conduct the study recruiting. Turnover additionally created problems for the intervention, and additional trainings were necessary as soon as new staff were added to the intervention site. Monitoring staff turnover became an important component of ongoing liaison with the participating sites.

Refresher trainings were conducted to help keep the ongoing staff engaged in the study over the 12-month recruitment period. Additional reminders were used periodically, such as distributing flyers with recruiting tips, sending “thank you” notes and periodic payments to counselors, and hosting lunches to encourage staff to continue to recruit intake clients for the study.

Using administrative and clinical records. We used BHS administrative data to plan the study; we used automated clinical services data to obtain important proximal outcome

information for the evaluation, and we used information in client case files to help trace and locate clients for follow-up interviews.

At the outset of a study, researchers are usually as unfamiliar with a provider's administrative record keeping and management information systems (MIS) that house administrative data as providers are with the proposed research design. Yet critical information about a provider's sites, services, and populations is often needed to develop successful, responsive proposals. As time is usually too short to acquire and analyze administrative data, existing reports from administrative databases are often used for planning. BHS provided the researchers with copies of reports on their programs' caseload size and these became a critical source for site selection, sampling design, scheduling, and data collection budgeting. While providing critical information useful for the planning stages of the study, these reports, in fact, were not good predictors of our experience in admissions and case flows during the actual study period, which took place almost two years later.

Client level administrative data often provide information about services received that is valuable for monitoring intervention implementation and assessing proximal outcomes, such as time in treatment. In our study, these data were part of the BHS MIS. Access to these data saved significant costs that would otherwise have been incurred to ask study subjects about services received during their interviews, or to abstract this information from hardcopy client case files.

BHS case files contain chart notes and records of addresses and phone numbers that were very helpful to fieldworkers trying to trace and re-locate clients to conduct baseline and follow-up interviews. Finally, administrative data from the County Department of Mental Health provided another important source of data on utilization of mental health services.

While BHS automated and hardcopy data were very useful for planning, implementation monitoring, and fieldwork operations, we encountered several challenges in attempting to use administrative data for these purposes. First, the data are not as thoroughly documented as researchers are accustomed to with research databases. Changes occur and systematic information about changes over time in codes used or data collection practices may not be available. Definitions of codes may not be documented in a form easily accessible to an outside user and they may differ somewhat by program. Specifications for reports generated from the data may be difficult to obtain. Thus, interpreting the data requires spending time with knowledgeable program staff, including line staff who provide the data, to understand how the data are gathered and what they mean.

Accessing the data is another challenge. For example, the MIS may be accessible only from a few computers that are typically in use by program staff. In addition, our researchers needed the assistance of busy administrative staff to learn how to use their system. Authorization to access the data is another issue. In the wake of HIPAA implementation, programs and IRBs are particularly sensitive to ensuring that information sharing is done within established processes for authorizing access. Other access challenges arise when working with actual client case files. For example, some records are centrally archived, while others are located in site facilities and others are in transit. Therefore, finding the required files takes considerable time and effort in some cases. Making sense of information contained in case files also requires close consultation with staff familiar with the program's procedures for record keeping.

Lessons and Recommendations for Future Studies

We have drawn several key lessons from the collaboration between RAND and BHS on the implementation and evaluation of intervention to improve care for co-occurring disorders in substance abuse treatment programs. We expect that these lessons have broad applicability for applied research conducted in routine behavioral health care and other community service settings.

Involve both senior and line staff in the project design and evaluation as early as possible. While senior administrative staff was involved from the outset during the planning stages and grant proposal development, the staff directly involved with delivering the intervention and data collection became involved at a relatively late stage. Several problems arose because of this. Because the researchers lacked a comprehensive understanding of the program's organization, it was only part-way through the study that it was appreciated that some clients only attended treatment in the evenings and did not have access to specialty groups delivered during the daytime hours. Additionally, our original subject contact sheets had inadequate locator information, and the initial system set up to screen clients involved significant counselor burden and resulted in a number of clients not being screened during the pre-test of the data collection methods. Building in time early in the project development phase for the interaction and sharing of expertise between partners in the research, including line staff, is critical to the success of research such as we have conducted. The period of making acquaintances can be used to gain an understanding of the program, to explain the research design, and to anticipate some of the challenges ahead.

Pilot both the intervention and the data collection methods. Interventions implemented in routine care settings must be feasible, and the conduct of research in clinical settings must be

responsive to staff concerns. In our study, pre-testing the data collection methodology over a period of several months allowed us to address issues of counselor burden and subject attrition prior to the period of formal data collection. However, we did not pilot the intervention in the treatment site prior to its implementation. Doing so would have facilitated its implementation by making us aware of challenges in, for example, scheduling specialty intervention groups for clients who only attended the program during evening hours.

Compensate program staff for their additional time and effort. Effectiveness studies depend on program staff to implement the interventions and facilitate evaluation data collection. The substantial duties requested of staff to make a research effort successful add burden to the already full jobs of the line staff and administrators. Studies need to ensure that program staff are individually compensated for the additional time and effort they are asked to provide to the research component of the project. The compensation can include both financial rewards as well as opportunities for additional training, educational seminars and shared ownership of the results. As part of this project, treatment staff received monetary incentives, were invited to visit the research organization and attend a seminar on substance abuse policy; regular work-in-progress sessions were held at the treatment sites, and senior BHS staff were co-authors of all papers submitted. In addition, the provider organization received increased local and national visibility.

Recognize the relative disadvantage of being a comparison site and build in both financial and non-financial benefits. The relative disadvantage inherent to a site that is assigned as the comparison site rather than as the treatment site that receives specialized training or other resources should be recognized and compensated as much as possible. In our study, the researchers agreed with program executives to offer the same training in mental health to comparison site staff at the conclusion of data collection, and to expand the intervention to the

comparison sites if it were judged effective. The financial incentives offered to counselors in the comparison sites for providing information about the study to potential subjects were also important in obtaining high rates of screening.

Plan for staff turnover. Staff turnover in the behavioral health workforce is high and can interrupt or slow productivity in data collection for a research project. Turnover adds burden on the remaining program staff as they may need to assume the clinical duties of departing staff, at least until replacement staff are hired. Turnover increases research costs since each new staff member who assumes data collection responsibilities will require orientation and training to participate in the study. Transfers of staff between intervention and comparison sites may also occur; in our study an intervention site counselor who had been trained in the intervention transferred to a comparison site shortly after the beginning of data collection. Promotions and transfers are a regular feature of routine care settings and can lead to the unintended exposure of comparison site clients to elements of the intervention. It is necessary to anticipate such events as much as possible in the design of the study, and in all cases these instances should be documented by the research team.

Use administrative data to address selection bias. It is unrealistic to expect program staff to approach all potential study subjects for recruitment. Therefore, researchers should plan to address selection bias analytically by comparing administrative data, available for all clients, with study data for those clients who are participating in the study. Making these comparisons will help to identify potential impacts of a recruiting process that does not reach the entire population of eligible cases. Administrative data on program admissions may offer information about demographics, severity of disorder, prior treatment and other variables that would shed light on differences, if any, between the study subjects and the target population. It must be kept

in mind, however, that privacy protections pose significant challenges to accessing records for non-consented clients.

Although a potentially valuable asset, administrative datasets can also be complex and difficult to work with. As such, they should be approached with as much background and understanding as possible on the source and procedures used in data collection, changes in record keeping practices over time, analytic capability, and consideration of issues related to physical, legal and electronic access to the data.

Researchers and practitioners may have different timelines and measures of success.

Another issue relevant for researchers interested in collaborative research with community-based programs is that the collaborating programs may have a sense of urgency for the results of the study. Throughout the research period, it is reasonable to expect that program staff will conduct their own qualitative “evaluation” based on staff impressions and on client reactions. They may be prepared to judge the intervention’s effectiveness well before follow-up data are collected and before the analyses are completed. As a result, they may wish to either expand or cancel the implementation of the intervention under study, prior to definitive results. Researchers should appreciate that providers may be more likely to reach a judgment or conclusion that researchers would reserve until all evidence is considered. Researchers should review their timetable with the participating programs and offer updates and preliminary data as the study proceeds. This approach can serve to better engage the staff in the evaluation component of the study, to increase understanding of the analysis issues, and to provide useful additional feedback to staff and program directors.

It is equally important to recognize that researchers, providers, and consumers may have different, yet equally valid, definitions of success (Minkler & Wallerstein, 2003). Discussion of

what constitutes a successful intervention in the planning phases can enrich both providers' and researchers' understanding of how the intervention will be used in real-life settings, while at the same time informing providers of the research community's definition of success. While researchers may appreciate provider perceptions that an intervention appears successful because the staff are enthusiastic about the intervention protocol, requirements of funding agencies and proclivities of journal editors to publish studies demonstrating effectiveness in terms of improved client outcomes are important markers of success.

Anticipate that external policy changes may change the context for the research. In addition to changes internal to the organization, unforeseen changes in the funding or policy environment may occur that interrupt productivity or compromise the planned research design. In our case, mid-way through the study, California passed and implemented Proposition 36, which diverted non-violent criminals convicted of a drug offense to treatment. This significantly changed the type of client entering substance abuse treatment at our study sites. As much as is possible, it is important to respond quickly to such events and their potential impact on the research design and analysis. Changes in program leadership, the addition of referral sources, funding losses can all impact the ability of a program to participate in research, especially over an extended period. When embarking on a collaborative study, researchers and program staff should discuss these possibilities and develop contingency plans that can minimize negative consequences on both the program and the research.

Implications

Providing effective care to persons with co-occurring mental health and substance use disorders is a challenge for behavioral health service providers. Research-practice partnerships in behavioral health services are receiving increased attention and are increasingly important. The

complexity of needs that clients present to treatment, and the growing expectations for program accountability to payers as well as consumers, demand treatment approaches that are comprehensive, evidence-based and feasible. Just as the challenges of providing comprehensive client services within one program have highlighted the need for and ultimate benefit of collaboration among providers to meet multiple client needs (Lamb et al., 1998), successful collaborations between researchers and behavioral health providers have the potential to strengthen the research base, advance evidence-based treatment approaches, and ultimately enhance quality of care. A successful collaboration has the potential for subsequent follow-on studies to build on findings from previous shared efforts. Long-term relationships also defeat the usual practice of demonstration programs, in which programs are fielded with time-limited grant dollars only to disappear when the funding is exhausted. Although funding may still be time-limited, potential sponsors of future research efforts may see advantages in ongoing productive partnerships, and providers – participating as full partners in the intervention and sharing in reviewing and interpreting results of research – may be more empowered to continue techniques demonstrated successful in the evaluation. By detailing the collaborative process of our RAND Corporation–BHS partnership surrounding the design and evaluation of an intervention to improve care for co-occurring disorders in outpatient substance abuse treatment, our intention has been to facilitate others’ efforts in establishing such partnerships.

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