

A Successful Researcher-Practitioner Collaboration in Substance Abuse Treatment

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Abstract

The best efforts to improve substance abuse treatment come from the integration of practice and research. The purpose of this article is to discuss factors that contribute to fruitful research-practice collaborations using the example of our recent, successful partnership between a group of treatment researchers and a group of substance abuse recovery houses operated by Fresh Start. The research effort was the Drug Evaluation Network System (DENS), a computer assisted method of integrating clinical research and policy relevant information into a standard admission interview. The article discusses several factors that were important in integrating this research effort into the treatment system. These factors included adequate advance preparation of clinical and research staff to employ the new system, overcoming bilateral biases, and determining the degree to which the clinicians' and researchers' missions are matched. The paper also discusses a range of general factors to consider in implementing and maintaining successful research-to-practice integrations.

Key Words

Collaboration

Linking research and practice

Partnership

Research-practice gap

Substance abuse

1. Introduction

Knowledge on the etiology, course, and treatment of substance abuse advances through the accumulation of both research findings in the lab and clinical experience in the field. Researchers have completed a variety of studies of patient groups exposed to well-structured treatments, all toward the goal of finding the best treatment methods (Chris-Christoph et al., 1998; Gerstein, & Harwood, 1990; McLellan, et al., 1998, 1999; McLellan, & Weisner, 1996). Similarly, clinicians have used the trial and error method with large numbers of individual patients using a variety of different forms of treatment, also in an effort to provide better patient care. Thus, both researchers and practitioners have been attempting to improve treatment and both groups have accrued valuable information on the characteristics of individuals seeking substance abuse treatment, ways to retain these individuals in treatment, and how to meet patient needs. However, it is also clear that there are significant differences in the ways by which each of these groups collects information and judges the value of the results (Institute of Medicine, 1998)

Clinicians and researchers have long recognized their differences in methods and values - the “gap” between research and practice (Institute of Medicine, 1998). O’Farrell and Fals-Stewart (2000) presented an example of this gap in their findings on the effectiveness of behavioral couples therapy for individuals with alcohol and drug abuse problems. Although research findings strongly support the efficacy of this behavioral treatment, for various reasons, providers are not able to integrate this therapy into routine clinical practice. This is not the only example of the research to practice gap. Indeed, the research literature lists numerous barriers to

successful implementation of research protocols in community-based treatment programs (Sorenson, & Midkiff, 2000; Zweben, Cohen, Obert, Vanderstool, & Marinelli-Casey, 2000). Although the research to practice gap - and ways of closing it - was discussed as early as 1979 (see Decision Determinants Analysis by Davis and Salasin, in Caldwell 1991), it is clear that blending research and practice will require efforts to integrate the significant differences between practitioners and researchers in their prior training, work and personal experience, focus and philosophy in substance abuse treatment. Yet, despite this “gap” there is the strong belief on the part of both researchers and practitioners that combining the best efforts of both groups will allow us to provide more effective treatment in a practical manner.

The purpose of this paper is to present a real world example of a working partnership designed to close the “gap” and to use the lessons learned from that example to illustrate broader principles of effective collaboration between these two groups. In this example, the researchers were from the Treatment Research Institute, a non-profit organization specializing in substance abuse treatment research. The treatment provider was Fresh Start, a non-profit agency that operates recovery houses in Philadelphia. The specific research project being implemented in these recovery houses was the national patient information project, the Drug Evaluation Network System (DENS) (Carise, McLellan, Gifford, & Kleber, 1999). We believe that the information presented in the following descriptions and discussions about implementation and maintenance of DENS at Fresh Start will be useful as a model for integrating clinical practice and research in future projects.

2. What is DENS, and what does Fresh Start do?

2.1. DENS

The Drug Evaluation Network System (DENS) was designed as an ongoing, nationally representative information system on our nation's substance abuse treatment centers. The system uses computer-assisted, electronic data collection to gather information on both substance abuse treatment programs and their patients. The Addiction Severity Index (ASI) is the primary source of patient information in the DENS. Counselors are trained to use the DENS ASI software to collect information on the nature, number, and severity of drug and alcohol problems, as well as on patients' medical, legal, employment, family/social, and psychiatric problems. The ASI has been tested over the past twenty years for reliability, validity, and utility with a very wide range of substance abusers (McLellan et al., 1992, 1985; McLellan, Luborsky, O'Brien, & Woody, 1980).

The ASI is used as the intake or assessment instrument in the DENS software system and thus it provides the treatment program personnel with information needed to make clinical decisions regarding patient placement and treatment care planning. The ASI has also been used in a wide range of clinical and health services research projects, so the DENS can offer researchers and policy makers scientifically valid information that can be used to document trends in a timely manner, including early, accurate reporting on the emergence of new types of drug problems, criminal justice and/or mental health resources used by those entering addiction treatment (Carise, et al., 1999; Carise & Gurel, 2003).

The use of a computer-assisted format to perform the ASI interview at patient admission offers some important clinical and practical advantages. First, the software system within the DENS allows the ASI to be completed in less time than is required for a paper and pencil interview, and with automatic error checking (See Carise, McLellan, Gifford, & Kleber, 1999). In addition, the ASI software has been programmed to provide clinical staff with an admission narrative report. This report also serves as the basis for the “biopsychosocial” assessment that is required by virtually all state regulatory systems and managed care agencies. The software also provides the program directors with immediate aggregate comparison reports of their patients on all intake variables in the following automated groupings; (1) male/female patients (2) patients prompted into treatment by someone in the criminal justice system vs. those not reporting that type of criminal justice system involvement, (3) last year’s patients vs. this years patients, and (4) patients currently receiving welfare vs. those not reporting receiving welfare currently. Additionally, programs participating in the DENS system receive aggregate quarterly reports describing demographic and clinically important characteristics of the patients admitted to their program over the quarter, compared with samples from similar (unidentified) programs participating in the project.

The admission staff at the treatment programs collects the ASI data during the course of standard admission interviews. These data are then transferred electronically each week to the Treatment Research Institute server in Philadelphia via modem. The use of the computer to transfer the collected information allows the system to collect and report data that is less than one week old. Further the computer assisted data transfer protocol in the project offers the opportunity to add new questions to gather additional information beyond the ASI questions, resulting in timely, valuable information on emerging trends. At this writing, there are 72

treatment programs from five cities (San Francisco, Chicago, New York, Philadelphia, and Miami) participating in the DENS, representing traditional outpatient, intensive outpatient, inpatient or residential, methadone or LAAM maintenance, and drug courts.

2.2. Fresh Start

Fresh Start is a Residential Recovery, Educational and Life Skills development organization serving chronic substance-abusing adults in 11 Recovery Houses in Philadelphia. The recovery houses can serve up to 173 people concurrently, and have separate services available for women, dual diagnosed patients, Latino males and females. The Fresh Start program is centered around a Care Management system that focuses on meeting the persons' immediate and intermediate social, economic and clinical needs as well as anticipating future needs post program completion. Fresh Start participates in the DENS project, in association with the Treatment Research Institute, in the Clinical Trials Network (CTN), funded by the National Institute of Drug Abuse (NIDA) and in several other clinical research studies in association with the Center for Studies of Addiction at the University of Pennsylvania and the Philadelphia Veterans Affairs Medical Center.

3. Clinicians and researchers collaborate: What is needed prior to implementation of a new system?

Throughout the partnership between the Fresh Start and DENS staff, treatment providers and researchers identified several factors that were necessary for successful introduction of collaborative research to practice projects.

3.1. Readiness of staff

The successful collaboration between treatment programs and a research group can only occur when each staff is ready for and willing to change at both organizational and individual levels. In the case of the current research project, the introduction of this system would mean a change in one of the core elements of Fresh Start's treatment system – the admission interview. Thus, in anticipation of the potential impact on admissions personnel and on the treatment program overall, the research staff had worked with clinical personnel to develop an information collection system that would capture the information of interest not only to the researchers, but also the treatment team; and in a way that would actually reduce the workload of the treatment staff and improve the product of the admission interview. The ASI software program was made user friendly and the output of the interview resulted in bar graphs indicting severity of the patient's problems and the patient's perception of his or her need for help with each problem. This effort to understand the clinical operation and the clinical needs of the program provided the basis for a meaningful negotiation between the two groups.

The DENS staff also spent time with the Director of the program – working with him to meet his needs and to show a good faith effort to bring technological advancement and assistance to the program – not just extra work. This produced interest, collaboration and ultimately acceptance and appreciation for the project on the part of the Director.

In turn, the Director worked with the research staff to create a willingness to consider the DENS system on the part of the clinical staff. To create an environment where the new system could be adopted and clinically utilized, the Director of Fresh Start spent time with his clinical staff, explaining the relevance of the new system and its applicability in improvement of the assessment and treatment processes. Primarily, he discussed the diverse needs of individuals seeking substance abuse treatment and the importance of assessing these needs in an accurate and comprehensive manner. It was explained to the counselors that using the new research system would aid them in identifying the nature and severity of the patients' problems not only in drug and alcohol but also in other important domains such as medical, employment, legal, family/social, and psychological. Key factors in this process were having the clinical staff genuinely believe in the need for comprehensive assessment, expanding their views on substance abuse patients' needs, providing a broader picture of the substance abuse disease, and explaining the complex and chronic nature of the disease.

Similarly, the Principal Investigator of the project prepared her research staff to foster a strong partnership with the clinical staff. The research staff was familiarized with clinical practice through ongoing meetings with treatment providers and feedback from focus groups where clinicians discussed features that could add clinical value to any research practice. These features include reports that would aid them in assessment and treatment planning. In addition to interacting with treatment providers, the research staff also gained more insight on the clinical practice through administering the assessment software, with patients seeking substance abuse treatment. This experience helped the research staff to evaluate the value and practicality of the research software, as the clinical staff would ultimately use it. This experience was invaluable in

the further development of the DENS data collection procedures and in subsequent trainings of participating clinicians.

3.2. Overcoming biases

Part of the preparation process involved an understanding and agreement between clinicians and researchers that both parties were working towards the same goal - just using different methods. Researchers are often viewed as being interested in clinical staff only for the data they can provide (Rawson, McCann, Huber, Marinelli-Casey, & Williams, 2000), however, the research teams' early efforts with the Fresh Start staff showed evidence that the researchers intended to not only collect data but also to partner with the treatment providers to make certain that the data collection process had resulting clinical value.

Perhaps the best example of the added clinical value from this research was the development of the DENS-ASI Narrative Report. This is a computer automated narrative summary that integrates counselor entered ASI data and corresponding item comments in an effort to provide an automated, yet thoughtful intake summary and biopsychosocial report that is required in most treatment programs. *Importantly*, this function is of no value to the researchers who designed the system; however, its availability has directly impacted the successful implementation of the project. Over the past 4 years of implementing the system, the ASI narrative summary continues to be the most often cited reason for treatment programs' willingness to participate in the project.

3.3. Organizational culture

Another important factor in research collaborations described by Davis and Salasin (See Caldwell, 1991) is the degree to which a treatment program's current attitudes, values, and cultural norms are in accord with those of the research project. Zweben and colleagues (2000) have discussed the conflicts between the focus of a research study and the culture of the treatment program where the study was being implemented in their report of a multi-site methamphetamine treatment trial project. It is clear that in addition to understanding each other's intentions and goals, the researchers and clinicians need to be from organizations with compatible missions.

The compatibility of mission orientation may be as important as the clinical relevance and practicality of the research study. This appeared to be true in the interactions between the research team and the Fresh Start group during preparation for implementing the system. It was during this preparation phase that both groups recognized similar missions and compatible organizational cultures, particularly the shared goal of improving treatment. In turn, these shared missions and values made the individual and organizational changes that followed "worth it" for both groups.

The organizational changes that ensued included more comprehensive reviews of patients' needs at treatment admission and of the nature and amounts of treatment services provided to the patients during treatment. Fresh Start was willing to take on this review and change process – even though it meant more work – given the possibility that those changes might lead to better patient care; and that the research group would commit to helping them use the power of technology and research findings to make those changes easier. Both Fresh Start and DENS staff agreed on the importance of addressing patients' problems in all domains of

their lives such as in medical, employment, legal, family and social, and psychological areas. This facilitated the change process and proved to be a significant element of the successful researcher-practitioner partnership.

4. Factors to consider in administering and maintaining implementation

4.1. Internal reengineering

The implementation of the project required internal re-engineering both in Fresh Start and the research group. The director at Fresh Start assigned specific responsibilities to staff, for example, sending data via modem, or keeping a log of intakes. Similarly, a contact person from the DENS team was assigned the task of providing “on-call” assistance to the clinical staff regarding the technical and practical issues of the new system, such as providing materials, answering questions, and fielding software issues. The importance of defining roles and responsibilities, clarifying the boundaries with regard to ethical issues (e.g., confidentiality), and resolving possible conflicts have also been discussed by others who have presented ways to improve research-practice collaborations (Zweben et al., 2000).

4.2. Setting goals

Although internal reengineering and distribution of responsibilities to specific individuals may differentiate each person’s focus within the research project, it is still important for participating clinicians and researchers to identify their goal for participation in the project,

which in this case was treatment improvement. One of the goals specified by the Director for his clinicians was increasing the rate of program completion. The stating of an explicit, measurable clinical goal immediately gave the DENS project higher relevance within the organization since the information from the project was used to identify and target services for those patients who were at high risk for early drop out.

4.3. Setting procedures and protocols

Establishing procedural steps within the treatment program (such as which counselor should do the ASI, when the ASI should be completed and how the information should be used) provided guidelines and broke a complex process into smaller, easier steps. In addition to conventions and suggestions provided to the counselors about how to best utilize the ASI information, Fresh Start's Director identified clear procedural steps to ensure the feasibility of the research protocol. The research team followed procedures (developed with the Fresh Start Director) regarding issues such as confidentiality, data management, and reporting findings to sustain the best quality of work. All these efforts resulted in the development of an ongoing, efficient, working relationship between researchers and clinicians. As Rawson and his colleagues (2000) noted in an earlier study, breaking down the protocol into smaller, concrete steps was useful not only in easing the administration process of the system, but also in increasing the adherence to its protocol. It was interesting and somewhat paradoxical, that by assuring that the clinical procedures took precedence over the research procedures, the research team actually received much more valid and timely information.

4.4. Involvement leads to ownership

To achieve an efficient and effective research to practice partnership, it is important to utilize feedback from participating clinicians in developing and refining the products of the research protocols or procedures. Ignoring clinical feedback will certainly lead to loss of collaboration and respect. In the course of the implementation phase, the research team and the Director and counselors of Fresh Start met on a regular basis to discuss the system and whether there were any modifications to that system that should be made for improving the usefulness and quality of the clinical information.

At these meetings, the findings, the emerging issues, interests and needs were also discussed, and ways to integrate these into the research protocol were evaluated. Other researchers have also recommended holding regular meetings attended by researchers and participating clinical staff (Zweben et al., 2000). Similarly, Sorensen and Midkiff (2000) reported that written communication is important in order to facilitate collaboration between researchers and treatment providers. In the current project, when the Director stated his interest in specific types of comparisons, the research staff presented the data in a variety of graphs and reports displaying the information in various ways, ultimately selecting the format that was clearest and most useful to the clinical staff. Similarly, in the development of the automated DENS narrative biopsychosocial reports, feedback from Fresh Start's Director were integrated into the final product. In turn, this made the reports more valuable to the clinical staff that collected the data and ultimately led to even greater concern and attention to the collection of accurate admission data.

4.5. Quality assurance and continued education

Experiences in transferring research findings to community-based treatment settings led Rawson and colleagues (2000) to emphasize, “accuracy is preferable to speed.” In an effort to ensure accuracy in data collection, one of the approaches that the Director of Fresh Start implemented was the regular review of the ASI coding with counselors including the provision of feedback to the counselors in instances where there was confusion. He discussed each patient assessment with the patient’s counselor. At this writing, he continues to oversee the integration of the DENS information in treatment planning that will address the patients’ needs. For example, if a patient has diabetes, the Director checks to see if the appropriate referral for medical care has been planned and received by the patient.

To foster this interest in the quality of the data, the research team provides booster training as well as a toll-free helpline to counselors to ensure the accurate administration and coding of the ASI. This is valuable for both treatment providers in promoting better patient care and for the researchers in gathering accurate data.

4.6. Compensation

Providing compensation to treatment providers who are participating in research is helpful in not only improving the quality and efficiency of the project, but also in making the research more attractive (Zweben et al., 2000). The compensation can include upgrading hardware, improving the use of technology, providing equipment (e.g., computers and copiers) or monetary compensation. In the current project, providing laptops, yearly \$1,000 site stipends,

and continued training and support were some of the efficient incentives for treatment providers participating in this system.

5. Outcomes of a successful implementation

5.1. Benefit to Clinicians

As discussed above, the treatment providers benefit from participating in research when that research involves implementing clinically useful tools or protocols. For instance, when the research reports identified that a high percentage of female patients reported a history of sexual abuse, Fresh Start hired a female practitioner with experience in this area to provide group sessions that focused on meeting the needs of the women with sexual abuse. The proactive nature of the program combined with the comprehensive information provided by the research project resulted in changes in treatment and we believe, better patient care.

As demonstrated here, research reports – when written in a collaborative and responsive manner – can be very helpful for counselors in providing some of the paperwork necessary in clinical care such as comprehensive intake assessment or treatment planning. It is time consuming for clinicians to complete multiple assessment and progress reports to meet various requirements from federal, state, local, and accreditation agencies. As described, our research project developed a supplementary form including questions required in biopsychosocial interviews that were not covered in the standard ASI, enabling its use as the biopsychosocial assessment and saving time for treatment providers.

5.2. Benefit to Researchers

A successful collaboration between treatment providers and researchers provides benefits to both sides. For researchers, it is crucial to implement a study or a new system exactly as it was planned to be able to draw valid conclusions from the findings. This is only possible through a true researcher-clinician collaboration. The data collected to date have been useful in monitoring the changes in patients entering these substance abuse recovery houses, and will have even greater utility as the research expands to a nationally representative sample, using these same partnership techniques.

5.3. Changes are effected by research

The aspect of this research that is most often cited as an important feature for treatment providers deciding to participate is the computer-generated report capability, particularly the automated narrative admission summaries. Treatment providers have stated that the nature and severity of a patient's condition must not only be captured comprehensively, but also organized and presented in a simple, easy to interpret manner. This was accomplished by the graphs and reports in the software, which aid counselors in better understanding their patients. Fresh Start's Director stated that these reports led to positive changes in treatment, and have, for example, been helpful for the counselors, giving them a better picture of a patient's condition, and leading to better treatment planning and more effective treatment.

Prior to participation in the project, Fresh Start's monthly treatment completion rates were 45%, after becoming a part of the project, completion rates increased to 70%. This is an

illustration of how providing research protocols that have clinical value can lead to increased retention rates in substance abuse treatment as well as being beneficial for facilitating researcher-clinician collaborations.

6. Conclusion

The successful implementation and continuation of the DENS project is clearly based on a partnership between treatment providers and researchers. This success is based on a joint commitment to make the treatment experience more helpful and successful. The ongoing nature of the relationship encourages the sustainability of other current projects and possibilities for increased future collaborations. Pursuing future projects in an ongoing effort to improve substance abuse treatment is the shared obligation of both clinicians and researchers.

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