TIPs Evaluation Project Prospective Study [1]

Becky A. Melzer, M.A. [*] **, Susan M. Hubbard, Ph.D., and Judy Y. Huang. Ph.D.**

Johnson, Bassin & Shaw, Inc., 8630 Fenton Street, 12th Floor, Silver Spring, MD 20910, USA

Abstract

The Prospective Study is the third major study under the Treatment Improvement Protocols (TIPs) Evaluation Project, which uses diffusion of innovations theory as its theoretical framework. This study employs an experimental design to examine four approaches to disseminating TIPs to substance abuse treatment professionals. The goal is to determine the most cost-effective level of support needed to implement treatment guidelines. Although the results are not yet available because the study is still in progress, it is presented along with the other major studies under this project to show how methodological triangulation can be used in conjunction with theory in evaluation studies to gain a more comprehensive understanding of implementation issues.

Keywords: Treatment Improvement Protocols (TIPs); substance abuse; substance abuse treatment; diffusion of innovations theory; diffusion theory evaluation; dissemination, adoption, and implementation of best practice guidelines; best practice guidelines; survey research; experimental design

1. Prospective study

The main objective of the Prospective Study is to determine the most effective level of support needed by substance abuse treatment professionals to implement into practice the treatment guidelines contained in the Treatment Improvement Protocol (TIP) #35: *Enhancing Motivation for Change in Substance Abuse Treatment* (US Department of Health and Human Services [DHHS], 1999). Justification for the Prospective Study was based on three factors: (1) the need to evaluate the use and usefulness of the TIPs products to professionals working within the substance abuse treatment field; (2) the need for information to support decision making regarding changes to the content, format, and dissemination strategy of existing and future TIPs; and (3) the need to understand the level of support needed to implement best practices contained in TIPs within the treatment field.

The Prospective Study was built on the earlier Retrospective Study (CSAT, 2000; CSAT 2001; Hubbard & Mulvey, in press). Results from the Retrospective Study that were of particular relevance for this study included the following: (1) just under half the professionals working in State recognized treatment programs are aware of TIPs; (2) of those who are aware of TIPs, approximately 60% have tried to use TIPs in practice; (3) treatment professionals generally like

---

[1] The opinions and assertions contained in this article are the private views of the authors and are not to be construed as official or as reflecting the views of the Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, or the Department of Health and Human Services.

[*] Corresponding author. Tel.: 1-301-495-1080. *E-mail address*: bmelzer@jbs1.com (B. Melzer).

TIPs (i.e., they find them credible, informative, and readers/user friendly); and (4) even though treatment professionals like TIPs, they find TIPs difficult to implement into practice. These findings suggested an examination of the level of training or supportive services that would be needed to help providers implement the information contained in TIPs into practice.

The Prospective Study uses the diffusion of innovations theory (Hubbard & Hayashi, in press; Rogers, 1995; Valente, 1995) to guide its plan to evaluate the success of various levels of support in aiding treatment professionals to implement the practice guidelines contained in TIP #35. According to diffusion theory, the implementation of a new practice or procedure follows a series of steps. First, individuals must become aware that the new practice or procedure exists. Second, they must become knowledgeable of the skills required to implement the new practice/procedure. Third, in becoming more familiar with a new practice or procedure, individuals will necessarily develop attitudes toward it. These attitudes will lead to a decision whether or not to try the new procedure in practice. Implementing, or actually trying, the new procedure is the next step. Finally, if implementation leads to positive outcomes, individuals will adopt the new behavior into their normal way of doing things (Valente, 1995; Rogers, 1995). Using this model, study questions for this evaluation are organized around four primary areas of interest: (1) treatment professionals' *knowledge* (i.e., awareness) of the TIP #35 material; (2) treatment professionals' *attitudes* toward TIP #35; (3) how treatment professionals use TIP #35 in *practice*; and (4) the impact of the different *levels of support* in achieving practice change.

2. Methodology

This study used a pretest/post-test experimental design. Using a generalized randomized block design, four States or State combinations (henceforth referred to simply as State or States) were selected to participate in the study. Within each State, four areas were selected based on similar socio-demographic characteristics and were randomly assigned to one of four treatment conditions. Each condition represents a level of support: (1) a TIP only group (the program will receive TIP #35 but no additional support), (2) a TIP-plus-curriculum group, (3) a TIP-plus-curriculum and training group, and (4) a TIP-plus-curriculum, training, and ongoing support group (Hubbard & Hayashi, 2001; Hubbard & Hayashi, in press).

This design was selected with considerations to validity and feasibility issues. The evaluators wanted to explore the effect of the different treatment conditions in different States. However, if each of the four States were assigned to one treatment condition, it would not be possible to discern the treatment effect from the geographic effect. Furthermore, if there were any problems with the data from a State, the evaluators would not be able to include that condition in the analysis. Using the generalized randomized block design, each State received all four treatments. Thus, should problems arise in any one State necessitating its removal from the statistical analysis, it would still be possible to test all of the conditions with the remaining States.

Additionally, this design avoids contamination of study results due to communication among programs receiving different levels of support. Each State was divided into four distinct geographical areas or blocks and these four areas were randomly assigned to the four conditions.

All treatment programs operating in a given area received the same level of support (i.e. condition). In this way, communications between neighboring treatment programs in the same area do not contaminate the study results.

Despite a number of advantages in using this design, one main disadvantage of this design is that the study results are not generalizable to the regions in which the States are located (i.e. Western US States). States were selected because they had a sufficient number of substance abuse treatment facilities for statistical analysis rather than because they were representative of a particular region of the US. Nevertheless, the study design (1) minimizes confounding variables which threaten the study's validity, (2) provides preliminary evidence of geographical differences in the level of support required to implement TIPs into practice in order to guide future research and implementation in which States could be chosen to represent regions, and (3) meets the objectives of the study while working within the budgetary allowance.

2.1. Sample size and design

TIPs are targeted to both administrative and clinical substance abuse treatment professionals working in treatment programs across the country. The Prospective Study examines two populations: (1) the more than 11,000 substance abuse treatment programs operating throughout the country, and (2) the more than 53,000 administrative and clinical professionals working in these treatment programs. A power analysis determined that 140 respondents per condition would be required to achieve the desired power of 90% for this study ($\alpha = 0.05$).

Using 140 participants per condition, the Prospective Study would require a total of 560 participants to examine the effect of the four different levels of support on practice change. However, in order to study the effect of the levels of support by region (represented by the four States), a total of 16 conditions would need to be examined, requiring a total sample size of 2,240 treatment professionals. In order to obtain a final sample size of 2,240 individuals, the size of the initial sample pool (i.e., those who received the pretest) would need to be increased to account for those who refuse to participate and attrition during the course of the study. Assuming an 80% response rate from solicited individuals, first during the pretest survey and then again during the post-test survey, it was necessary to send pretest surveys to 3,500 individuals (approximately 222 individuals per condition). Assuming that each program had average of six individuals answering the pretest survey (one facility director, one clinical supervisor, and approximately four program counselors) and five for the post-test survey (assuming one dropout per facility), it was determined that 37 facilities would need to be contacted for the pretest survey in each of the 16 conditions to meet the statistical needs of the study.

Sampling for this study involved four stages: (1) purposive selection of States included in the study; (2) purposive selection of four areas (e.g., counties) within selected States to receive the experimental interventions; (3) selection of treatment programs within the areas to be included in the study; and (4) a combination of purposive and random sampling to select treatment professionals (i.e., facility directors, clinical supervisors, and program counselors) to receive the pretest and post-test surveys.

2.1.1. Stage 1: Selection of States

Purposive sampling was used to identify a preliminary sample of four States to participate in the study. In order to effectively implement the evaluation, States were needed that (1) were located in different regions of the country, (2) were large enough to contain four areas (e.g., counties) within them that do not communicate with each other on a regular basis, and (3) contain an adequate number of treatment programs to meet the statistical needs of the study. With the help of the Division of State and Community Assistance at CSAT, the States of California; Louisiana; New York; and Wisconsin were selected. Further investigation revealed that Wisconsin and Louisiana did not have enough treatment programs operating in each of four distinct areas to meet the statistical requirements of the study. After subsequent consultation with CSAT, Illinois and Georgia were selected as additional States for the evaluation. Thus, the States of Georgia and Louisiana as well as Wisconsin and Illinois were combined into single "State" units in order to yield a sample with an adequate number of facilities and treatment professionals to allow for statistical analysis.

2.1.2. Stage 2: Selection of four areas within selected States to receive the treatment conditions

Purposive sampling was used to select four areas within the selected States to receive the experimental interventions. Selection of these four areas was based on the following three criteria. First, the areas needed to be separate enough (e.g., in geography) so that communication across the different treatment conditions would be difficult. Second, each area needed to have at least 37 treatment programs in order to have enough statistical power to answer the evaluation questions. Finally, the four selected areas were to have similar socio-demographic and substance abuse characteristics. This third criterion is necessary so that the evaluators can discern if treatment effects are due to the experimental treatment conditions or to other covariates.

The States' Single State Agency (SSA) Directors were enlisted to help locate areas within the selected States that met the above-mentioned criteria. Letters from the TIPs Evaluation Project's Government Project Officer were sent to the SSA Director of each State chosen to participate in the evaluation. The evaluators then called each of the six SSA Directors to gain support and to ask for their help in selecting appropriate areas within their States to be included in the evaluation. All of the SSA Directors offered their personal assistance or assistance from their agency evaluation staff. To minimize possible selection bias by SSA Directors, the random assignment of each of the four areas was not completed until after the SSA identified the four areas within the State. Furthermore, the treatment programs operating within the selected areas, which were asked to participate in the study, were sampled from the Substance Abuse Treatment Facility Locator, a database of facilities maintained by the Substance Abuse and Mental Health Administration (SAMHSA). A number of SSA Directors in several States expressed the opinion during initial telephone contacts with them that the estimate of six treatment professionals at each site for the pretest was too high. In several facilities, for instance, the roles of facility director and clinical supervisor are filled by one person/position. Therefore, a decision was made to decrease the estimate of treatment professionals to five from six for the pretest survey

and increasing the number of sites per condition to 44 sites to meet the statistical requirements of the study.

In addition to obtaining SSA assistance in dividing their States into areas, county level demographic information including age, gender distribution, race and ethnicity composition, and population size from the 2000 US Census was reviewed to ensure that the counties included in each of the four areas were homogeneous with respect to demographics for statistical comparison (US Census, 2000). As a result of this review, several cities and counties surrounding high population centers were removed. Furthermore, once the four areas within a state were defined by the SSA, treatment facilities within entire counties were removed from the pool of possible participating programs. These removed counties served as geographic barriers between study areas and decreased the likelihood that facilities in the surrounding counties would share information regarding the experimental treatment.

2.1.3. Stage 3: Selection of treatment programs to be included in the evaluation

The Prospective Study sampled from the universe of more than 11,000 substance abuse treatment programs listed in the Substance Abuse Treatment Facility Locator (formerly the National Facility Register). The facility locator is a subset of programs listed in the Inventory of Substance Abuse Treatment Services (I-SATS) (formerly the National Master Facility Inventory)[2] that includes only State-recognized (licensed, certified, or otherwise recognized) treatment programs. The Substance Abuse Treatment Facility Locator is maintained with the most current information available and posted online on the SAMHSA web site (SAMHSA, n.d.). The listing of facilities and corresponding facility directors for this study was downloaded just before the evaluation began to ensure the most up-to-date version was obtained from the Drug and Alcohol Services Information System (DASIS), the data collection system conducted and managed by the Office of Applied Studies, SAMHSA (SAMHSA, n.d.). Programs representing all modalities (e.g., Methadone, outpatient, hospital-based, etc.) were included in the study because the content of TIP #35 (i.e., motivational interviewing) is appropriate for all programs that provide treatment services (DHHS, 1999).

The sampling frame of treatment facilities was narrowed to include only those treatment programs operating in the four areas selected within that State(s). If only 44 treatment programs were operating in a selected area, then all the programs in that area were sent the pretest surveys. If more than 44 treatment programs were operating in a selected area, a random sample of 44 treatment programs was drawn for inclusion in the pretest survey mailing. The facility names and locations were kept separate from the survey database so that they can be deleted at the end of the study to protect the confidentiality of the treatment programs. In the final analysis the data will be aggregated at the condition and/or State level and the individual treatment programs will not be identified.

2.1.4. Stage 4: Selection of treatment professionals to receive the pretest and post-test surveys

[2] The I-SATS is a master list of all organized substance abuse treatment/prevention programs known to SAMHSA.

TIPs are targeted to administrative and clinical professionals working in the substance abuse treatment field, so it was important to include them in the study. A combination of procedures was used to select the treatment professionals to complete the pretest and post-test surveys. In general, each treatment program has only one facility director and one clinical supervisor so the entire population of facility directors and clinical supervisors were included. Then, a random sample of program counselors was taken from each of the treatment programs. Survey identification numbers were assigned to each survey in order to match the pretest and post-test data without using any personal identifiers such as the participant's name. In addition, the names and locations of the participants were kept separate from the survey data and were to be deleted at the end of the study to protect confidentiality. Final reporting of the data will be done in aggregate without any person level analysis.

2.2. Data collection procedure

The evaluators followed the guidelines outlined in the Tailored Design Method (TDM) (Dillman, 2000) for the data collection. The specific steps of the TDM data collection procedure are organized around a series of contacts with the target audience. Once contact is made with a member of the target audience, the success of that contact is monitored and steps for future contact are made. The following subsections specify the steps in the data collection procedure followed in this study.

2.3. Pilot study

A pilot study of the pretest and post-test surveys was conducted with nine substance abuse treatment professionals. The pilot study participants were asked to complete the pretest and post-test surveys, to comment on the clarity of the questions, and to identify problems and issues regarding the questions and format of the surveys. Participants also gave oral feedback regarding the appropriateness of the questions for the intended audience. Based on the feedback received from the pilot study, minor changes were incorporated into the pretest and post-test surveys.

2.4. Pretest data collection

In preparation for mailing the pretest survey, the different areas were randomly assigned to the four treatment conditions. These regions were labeled A through D and then a random permutation was used to assign the regions to treatment conditions. The pretests were coded with unique identifying numbers to track responses at the participant level as well as by condition. The purpose of using a unique identifying number was to track responses to determine if additional follow-up was needed. The unique identifying number was also needed to match the pretest surveys to the corresponding post-test surveys for statistical analyses without using participants' names.

In October 2001, a pretest packet was sent to the facility directors of the selected treatment programs. This packet included an introductory letter to the facility director and eight pretest surveys each accompanied by a stamped, pre-addressed return envelope. The letter explained the

purpose of the survey, provided details of both intrinsic and extrinsic incentives to encourage response and to reward participation, assured confidentiality to the respondent, offered directions for completing the online survey, and offered an “800" number in case the respondent had any questions. In the letter, the facility director was asked to complete and return one of the surveys, to give one copy of the survey with its return envelope to the program’s clinical supervisor (or equivalent), and to give the remaining six surveys (and envelopes) to line staff members (i.e., program counselors) working at the treatment program. If the program had six or fewer counselors, the facility director was asked to encourage each program counselor to complete and return the survey. If the program had more than six counselors, the facility director was asked to randomly select six of the counselors to complete and return the surveys. The method for randomly selecting the treatment professionals who were to complete the survey was outlined for the facility directors. The facility director was also given a pre-addressed, stamped postcard and asked to provide contact information for the clinical supervisor and counselors. This gave the evaluators the necessary information to contact the clinical supervisor and counselors directly if follow-up was required.

On the last page of the questionnaire, the participants could enter their name, address, and indicate their preference for the incentives on a removable sheet. For the Pretest Survey the incentives included: (1) any TIPs requested, and (2) one of 10 videos available through (NCADI). Respondents who returned their questionnaires by a specified date were given the option to select two videos. The online version of the survey included the incentive information in a separate database table that was easily separated from the rest of the participant’s survey.

Within two weeks of the initial mailing, all respondents were sent a reminder postcard. The card thanked those participants who responded, asked those who did not respond to complete the survey as soon as possible, and requested that those who lost or misplaced their survey to call the "800" number for a replacement. For the next step, replacement surveys were sent to all those who did not respond and were reminded that the surveys could be completed using the electronic version of the instrument.

Finally, a telephone follow-up was used to contact all potential respondents who did not respond to the survey and to contact all facility directors who had not completed the facility level postcards. Several respondents indicated that they had returned surveys although there was no record that the surveys were received. After several weeks, it was apparent that surveys that had been postmarked early in the data collection process had taken weeks to arrive. One likely reason for this delay was the Anthrax scare in Washington, DC during the last quarter of 2001 that disrupted the U.S. postal delivery service. In consideration of the delays in the postal system and to accommodate surveys that had been postmarked well before the original survey due date, the evaluators extended the return deadline.

Despite extensions of the return due date and careful planning of the sample size, response rates for the pretest survey remained low. The treatment facility listing compiled from the Substance Abuse Treatment Facility Locator (SAMHSA, n.d) indicated that we had sufficient numbers of facilities in each area. However, during the follow-up phone call phase of the TDM for data collection it was discovered that several of the treatment programs were no longer providing

substance abuse treatment, were closed, or were duplicates of other listings. This meant that fewer than the intended 44 facilities were contacted. These follow-up telephone calls, also, revealed that the correct number of treatment professionals working at each site and thus the total number of possible participants for the survey was fewer than expected.

2.5. Application of experimental conditions

Based on the theory that program change must be approved and therefore implemented from the top down (Valente, 1995; Rogers, 1995), the experimental intervention was targeted to the facility director and clinical supervisor of each program selected. The surveys completed by program counselors represent an unbiased response to current treatment practices at baseline and an unbiased response to changes in practice at follow-up because only the facility directors and/or clinical supervisors directly received the treatment associated with the assignment of a condition. The counselors will only realize the impact of the condition if the facility director and/or clinical supervisor disseminate the information to the program counselors in their facilities. Therefore, if differences are found between pretest and post-test surveys for program counselors it may be inferred that changes occurred by means of diffusion of innovations. The experimental intervention groups were:

(1) **TIP Only Group:** The facility directors of treatment programs in this group that responded to the pretest survey were mailed TIP #35.

(2) **TIP and Curriculum Group:** In addition to TIP #35, facility directors of treatment programs in this group that responded to the pretest survey received a TIP #35 curriculum package, with a cover letter from CSAT that offered the curriculum as an enhancement to the TIP.

(3) **TIP, Curriculum, and Training Group:** In addition to receiving TIP #35 and the curriculum, the facility director and clinical supervisor from each of the programs in this treatment condition that responded to the pretest survey were invited to attend a training offered in their region. The training consisted of a two-day session on how to use the TIP and the curriculum. This training was conducted by trainers experienced in teaching the guidance in TIP #35 and was observed by the evaluators. At the trainings, evaluators used code sheets to ensure that the trainings were consistent across regions as well as across conditions. As an incentive, the trainings were offered to the participants free of charge and the participants were given 14 continuing education hours.

(4) **TIP, Curriculum, Training, and Follow-up Support Group:** The facility director and clinical supervisor from each of the programs in this treatment condition that responded to the pretest survey received TIP #35, the curriculum, and were invited to attend a training that was the same as the free two-day training offered to those in Condition three. Again, the evaluators used code sheets during these trainings to ensure consistency. In addition, this group was offered follow-up training events. During this half-day session, participants had the opportunity to discuss their use of TIP #35 and the curriculum, describe successes and difficulties, and receive additional assistance from the trainers and their peers. Those who participated in the two-day training received 14 continuing education hours and those who attended the half-day training received an additional four

continuing education hours. As a final element of support, each program was given ongoing off-site technical assistance by the trainers by telephone, e-mail, or fax.

As shown in Table 1, the response rates for the trainings were very low. Additional participant dropouts occurred in Condition 4 as some participants did not return for the follow-up training. This means that there are insufficient numbers of participants in Conditions 3 and 4 for the post-test surveys. The limitations posed by the low response rates will be discussed further in the discussion section of this article.

…INSERT Table 1. Response rates for the TIP #35 training

2.6. Training evaluations

As part of the requirements for granting continuing education hours, the evaluators needed to collect participant evaluations of the trainings. These evaluations were collected at the end of the two-day and half-day trainings. Because the evaluations were anonymous and did not have survey identification numbers, they cannot be linked to the pretest or post-test surveys. However, they will provide qualitative information that may compliment the results of the surveys.

2.7. Post-test data collection

Following the application of the experimental conditions, the evaluators waited three months to contact the participants to allow time for any implementation of change to occur. This time period was allocated in accordance with the diffusion of innovations theory, which purports that time is needed for any individual and organization to learn about and use a new idea before adopting it into general practice (Rogers, 1995). At the completion of the three-month period, the post-test surveys were mailed to all respondents who returned a pretest survey in Conditions 1 and 2 and to those individuals in Conditions 3 and 4 whose programs completed the pretest survey and all subsequent training and follow-up supportive services. A procedure similar to the one used with the pretest survey was established to mail and track responses to the post-test survey. However, guided by the lesson of the pre-test survey in which the speed and use of regular US Postal Service hampered the response rates, the evaluators used an overnight mail service for the mailing and return postage of the post-test surveys. Prearranged overnight return envelopes and additional incentives were used to encourage the respondents to continue their participation in the study.

3. Analysis Plan

The data analysis will be conducted in two phases. First, the pretest survey data will be analyzed to check for homogeneity at baseline. Then, the data will be analyzed to determine which level of support is most effective in achieving practice change.

3.1. Hypotheses

As the level of support increases, increases are expected in (1) the treatment professionals' knowledge/awareness of TIP #35 and in (2) their knowledge/awareness of the content contained in TIP #35. As the level of support increases, it is expected that (3) treatment professionals' attitudes will be more positive toward TIP #35 and (4) their attitudes will be more positive toward the content contained in TIP# 35. Finally, as the level of support increases, it is expected that (5) treatment professionals' use of the practices contained in TIP #35 will increase.

Additionally, the evaluators will examine the cost effectiveness associated with the differing levels of support. For each successive level of the treatment conditions, more costs are incurred. If statistically significant differences are found between treatment conditions, a cost-benefit analysis will be conducted to determine if the extra level of effort and costs are justified. Calculation of the total cost should include monetary and time costs associated with the development and dissemination of TIP#35, the development and dissemination of curriculum materials, the implementation of trainings at locations convenient for the treatment providers, and provider ability to attend trainings.

3.2. Preliminary analysis

The post-test data collection for this study is currently in progress; therefore, the primary analysis has not been completed. However, a preliminary analysis of the pretest data examined evaluation questions relating to participants' *knowledge, attitudes, and practices* with regard to TIP #35. These evaluation questions include: (1) Are treatment professionals aware of TIP #35? (2) To what extent are treatment professionals knowledgeable about the practices contained in TIP #35? (3) What are treatment professionals' attitudes toward TIP #35 (4) What are treatment professionals' attitudes toward the content contained in TIP #35 and (5) To what extent have treatment professionals used the information contained in TIP #35?

4. Preliminary results

A total of 1,487 individuals responded to the pre-test survey, resulting in a 41.04% response rate at the individual level. At the facility level, the response rate was 64.87% (N=410). Of the study respondents, 59.6% (876) were "Female" and 40.4% (594) were "Male" (N=1,470). With regard to *Race* (in which the categories were not mutually exclusive), the participants identified themselves as 81.4% (1,210) "White", 11.2% (166) Black or African American, 2.8% (42) American Indians or Alaskan Natives, 1.5% (22) Asian, and 0.5% (7) Pacific Islanders (N=1,487). This profile of the respondents' race is fairly similar to the U.S. population as indicated by the recent U.S. Census (2000) which found the following percentages for the general U.S. population: 77.1% White, 12.9% Black or African American, 4.2% Asian, 1.5% American Indian or Alaskan Native, 0.3% Native Hawaiian or Other Pacific Islander, and 6.6% for those who indicated Other. Overall, the study participants had a higher level of *Educatio*n compared to the general population with 72.8% (1069) of the respondents (N=1,471) holding at least a college degree.

Other demographic variables of interest in this study include the *title* or position of the treatment professional in their organization, their certification or licensure status, and their area of

specialization. Of the respondents (N=1,472), 14.2% (209) were "Facility Directors" (i.e., Program Directors or Executive Directors), 12.9% (190) were "Clinical Supervisors", 4.5% (66) were "Both a Facility Director and Clinical Supervisor", 50.0% (35) were "Program Counselors", and 18.4% (271) marked "Other" as their job title. The majority of the treatment professionals (69.8%; N=1,470) held certification or licensure in at least one state as a substance abuse and/or mental health professional. "Drug treatment" and "Alcohol treatment" ranked highest amongst the specializations with 74.8% (1,112) and 74.2% (1,103) respectively (See Figure 1). The other categories included: "Substance abuse prevention/education," "Mental health," "Criminal Justice," and "Other."

…INSERT. ***Fig. 1. Areas of specialization for substance abuse treatment professionals***

5. Discussion

5.1. Future analysis

This study is still in the post-test survey collection phase. Future analyses of the Prospective Study will include an examination of the differences between the pretest and post-test survey data. The examination will directly address the main objective of the evaluation including the previous evaluation questions listed for the preliminary analysis along with seven other evaluation questions. The remaining evaluation questions include the following:

(1) To what extent have treatment professionals' organizations implemented the information contained in TIP #35 into practice?
(2) To what extent have treatment professionals encouraged others to use the information contained in TIP#35?
(3) How successful were treatment professionals in using TIP #35 in practice?
(4) What was the impact of TIP #35 on changing substance abuse treatment practices?
(5) Which level of support was most effective in achieving practice change?
(6) Which level of support resulted in the most change in practice over time?
(7) What was the impact of the different levels of support on changing substance abuse treatment practices?

The post-test analysis plan will follow the same general procedures that were used for the pretest data. For the post-test, the dependent variables will be evaluated to determine which unit of analysis should be used for statistical testing. Statistical analyses will be conducted at either the individual or facility level or at both levels, as it is appropriate. Analyses will be aimed at determining if statistically significant differences exist among the treatment groups regarding the respondent's awareness and use of TIP #35. Analysis of variance (ANOVA) will be conducted to determine which level of support is the most effective in achieving practice change in each State included in the study. Individual blocks may be dropped if the response rates do not meet the statistical requirements of the study.

A content analysis of all open-ended responses on the post-test survey will be conducted. Suggestions for improving the content, format, and dissemination strategy of TIP #35 will be

made based on the study results. Respondents' general comments regarding TIP #35 and the study will be addressed as part of this analysis. Finally, descriptive statistics and content analysis of open-ended questions will be conducted using the responses to the continuing education evaluations that were completed by the training attendees.

5.2. Limitations of the Prospective Study

The Prospective Study was confronted with several obstacles over the course of the study. Low response rates associated with the pretest survey and the poor attendance at the training sessions will likely have a negative impact on the statistical power and the overall analysis. One critical, but unforeseeable, event that may have contributed to the problem in data collection was the anthrax scare, which slowed the delivery of the survey from the Department and Health and Human Services and slowed the return through general US Post Office.

Another important element to the post-test survey involved the postcards on which facility directors were asked to identify the individuals within their facilities who were to respond to the surveys. This was intended to provide the means with which to track and follow-up with all of the possible respondents in the substance abuse treatment facilities. This was necessary because the database from which the substance abuse facilities were drawn (I-SATS) only included facility director names, but not the names of the clinical supervisors or program counselors. Failure to receive many of these postcards from the facility directors could be due to mail delays and problems associated with the Anthrax scare. Another possibility is that the facility directors did not take the time to return this information on the postcard. In some cases the directors provided the names of the individuals, but did not directly link the individuals to the survey that the facility director had assigned. This added an extra challenge to conducting the follow-ups for the pretest survey.

With regard to the training, there is no data to support some of the anecdotal reasons given by participants as to why the training participation was so low. However, there are several things to consider in terms of the population and the design of the study. First, invitations to the training sessions and the training itself may have been ill timed. The invitation was sent just before the holidays and then the trainings occurred in January, when the treatment professionals may have been returning from personal time away from the office for the holidays. The unfortunate events of September 11 may have also affected this study. While the trainings were planned in areas that were thought to be centrally located and easily accessible to participants, it was inevitable with the dispersion of facilities in some areas that a number of participants would need to travel some considerable distance to attend the trainings. It is possible that participants were hesitant to travel in the aftermath of September 11. Second, this study was guided by the diffusion of innovations theory, which purports that change is implemented from the top level of the organizations (Rogers, 1995; Valente, 1995). In this case, it was decided that change would occur if the intervention were given to the facility directors and clinical supervisors. Some of the facility directors reported that they would have preferred to send their counseling staff to trainings because the counselors were the ones providing treatment services. However, to have program counselors at the trainings rather than facility directors and clinical supervisors would contradict the diffusion of innovations model, which posits that policy change must be approved

by higher-level staff. A counter argument would be that opinion leaders might not be the top-level staff in the agency. That is, a program counselor who obtained training may have influence on a facility director or clinical supervisor in encouraging the adoption of new practices such as implementing the guidelines in TIP #35.

Despite the limitations, this evaluation is an innovative undertaking for the funding agency. As part of the TIPs Evaluation Project, the Prospective Study builds upon earlier studies in an effort to provide valuable information regarding services provided by CSAT. Despite the low response rates, this evaluation can still provide evaluators and organizations with some useful information regarding the relationship between levels of supportive services and the success of implementation and practice of new ideas and innovations.

6. Preliminary recommendations

Although this study has not been completed, some general preliminary recommendations are offered to evaluators conducting this type of evaluation and to service providers implementing support services. For studies that involve follow-up contacts, having the necessary information to make the follow-up contacts and the ability to match the individual before and after treatment are essential. In studies using pre- and post-test surveys, using mailing lists with incomplete contact information will seriously hamper the follow-up efforts. The evaluators of this study recommend reviewing the participant list before mailings to make sure all the contact information are accurate and complete. If time and budget allow, it would be helpful to make an initial call to the participant to verify the contact information. Since appropriate follow-up is necessary for a high response rate (Dillman, 2000), it is important to take the extra effort to ensure that contact information with the participants is available.

At this time, the question remains as to whether surveys should be mailed to each participant directly or whether one person within a facility should be contacted for distribution of the surveys to other participants in the same agency. The diffusion of innovations theory (Rogers, 1995) would suggest that a supervisor is the best person to disseminate information in an organization. Budgetary limitations may also dictate how mailings are handled. It is more economical in time and effort to send all the surveys to one agency for distribution to the participants than to send each individual a survey. Future analysis of the data from this study may provide some insights as to whether contacting a supervisor is sufficient and if different levels of support facilitate the dissemination of materials.

In terms of training and other support services, it is important to determine which person in the organization should attend. This study postulates that policy change occurs only when supervisory level personnel (i.e., facility directors and clinical supervisors) are knowledgeable about the new practice, procedure or innovation; practice the innovation; and implement the new procedure. Therefore, only the facility directors and clinical supervisors were offered the training and follow-up supportive services. However, a number of the supervisory level professionals indicated that they wanted their line staff to attend the trainings. Perhaps if the program counselors were also included in the trainings better participation would result. In this study, the decision as to who should be invited to the trainings was guided by theory, but budgetary

constraints or other considerations could also affect who would be included in the trainings. Nevertheless, taking the time to understand the various perspectives of the many stakeholders could yield more meaningful results for all those involved.

Acknowledgements

This article was supported by contract 270-97-7005 from the Center for Substance Abuse Treatment, Substance Abuse and Mental Health Services Administration, Department of Health and Human Services.

References

Center for Substance Abuse Treatment (CSAT). (2000). *Retrospective Study Wave I quantitative results final report* (Vol. 1). Rockville, MD: U.S. Department of Health and Human Services.

Center for Substance Abuse Treatment (CSAT). (2001). *Retrospective Study Wave II quantitative results final report.* Rockville, MD: U.S. Department of Health and Human Services.

Dillman, D.A. (2000). *Mail and Internet surveys: The tailored design method* (2nd ed.). New York: John Wiley & Sons, Inc.

Hubbard, S.M. and Hayashi, S.W. (2001). *Office of Management and Budget submission: The Prospective Study*. Rockville, MD: U.S. Department of Health and Human Services.

Hubbard, S.M. & Hayashi, S.W. (in press). Use of diffusion of innovations theory to drive a Federal agency's program evaluation. *Evaluation and Program Planning (Special Issue).*

Hubbard, S.M. & Mulvey, K.P. (in press). TIPs Evaluation Project Retrospective Study: Wave 1 and 2. *Evaluation and Program Planning (Special Issue).*

Rogers, E.M. (1995). *Diffusion of innovations* (4th ed.). New York: Free Press.

Substance Abuse and Mental Health Administration (SAMHSA). (n.d.). *Substance abuse treatment facility locator*. Retrieved August 2001, from http://findtreatment.samhsa.gov/.

US Census Bureau. (2000). *US Census Bureau: American fact finder*. Retrieved September 2001, from http://factfinder.census.gov/servlet/BasicFactsServlet.

US Department of Health and Human Services, SAMHSA, Center for Substance Treatment (DHHS). (1999). *Enhancing motivation for change in substance abuse treatment*: *Treatment improvement protocol (TIP) series.* Rockville, MD: US Department of Health and Human Services.

Valente, T.W. (1995). *Network models of the diffusion of innovations.* Cresskill, NJ: Hampton Press.

Table 1. Response rates for the TIP #35 training

	Number of Individuals Available Across All Facilities[1]	Number of Individuals Responding	Individual Level Response Rates (%)	Number of Facilities Contacted for Participation	Number of Facilities Responding	Facility Level Response Rates (%)
Condition 3						
CA	46	4	8.7	23	4	17.4
GA/LA	48	13	27.1	24	8	33.3
NY	48	13	27.1	24	11	45.8
WI/IL	50	4	8.0	25	3	12.0
Total	192	34	17.7	94	26	27.7
Condition 4						
CA	46	7	15.2	23	5	21.7
GA/LA	68	21	30.9	34	15	44.1
NY	52	8	15.4	26	5	19.2
WI/IL	64	6	9.4	32	5	15.6
Total	230	42	18.3	114	30	26.3

[1]The number of participants available across all facilities only included facility directors and clinical supervisors - in some cases facilities have one individual serving in both positions.

N = 1487

Fig. 1. Areas of specialization for substance abuse treatment professionals

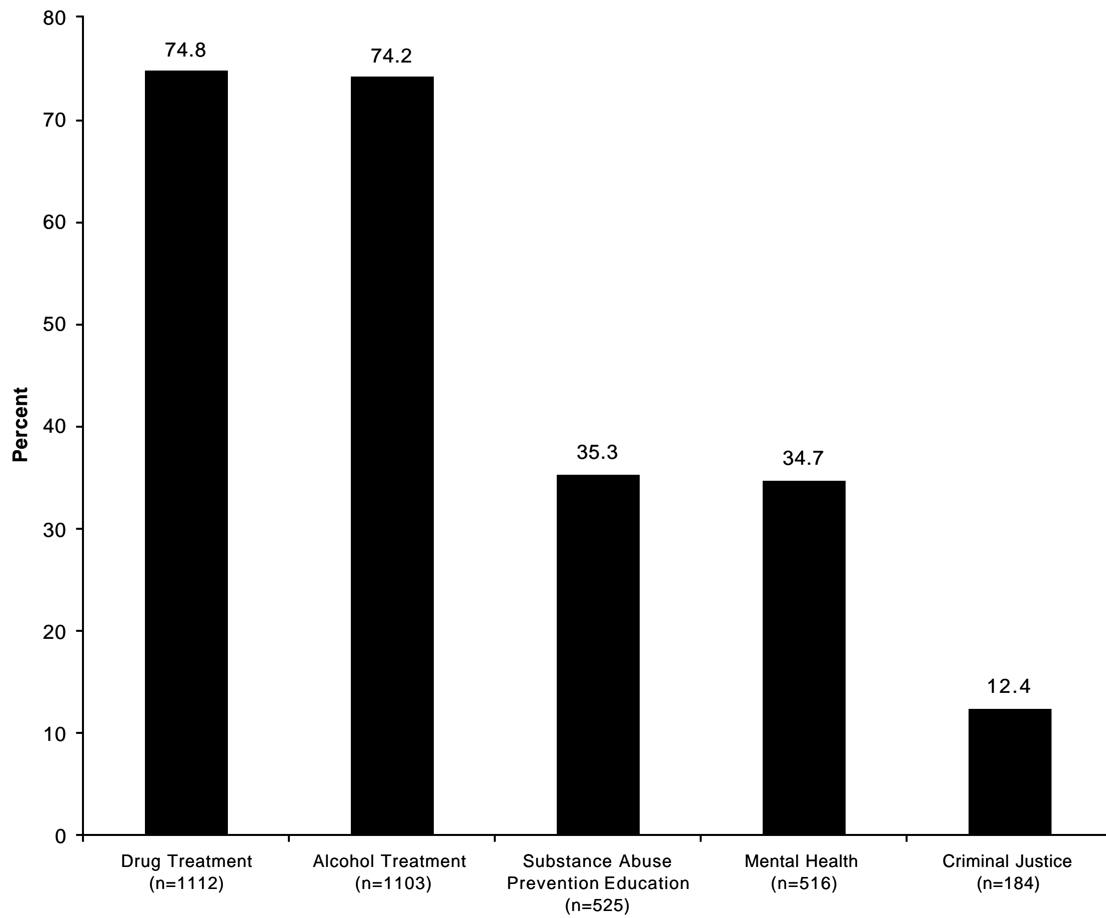

Fig. 1. Areas of specialization for substance abuse treatment professionals

N = 1487