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**THE INNOVATION DIFFUSION AND ADOPTION RESEARCH PROJECT (IDARP):
MOVING FROM THE DIFFUSION OF RESEARCH RESULTS
TO PROMOTING THE ADOPTION OF EVIDENCE-BASED INNOVATIONS
IN THE OHIO MENTAL HEALTH SYSTEM**

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In the process of implementing its quality agenda, the Ohio Department of Mental Health is taking action in three arenas: consumer Outcomes, quality improvement, and evidence-based practices (EBPs). This project is focused on the EBP component of the implementation process. ODMH hopes to improve quality of care by facilitating the adoption and assimilation of EBPs by service providers in Ohio. Coordinating Centers of Excellence (CCOE) have been established as structural mechanisms to accomplish this goal. Each CCOE is seen as the statewide technical expert with regard to the implementation of a specific one of these innovative practices. The major functions of CCOEs are to disseminate information about EBPs to provider organizations, to promote the adoption of EBPs, and to provide the technical assistance, training, and consultation required for the successful implementation of a specific EBP by service providers.

The IDARP research project focuses on two broad questions: 2) What factors and processes influence the adoption of innovations by behavioral healthcare provider organizations? 2) What factors and processes contribute to the longer-term assimilation and impacts of innovations by adopting organizations?

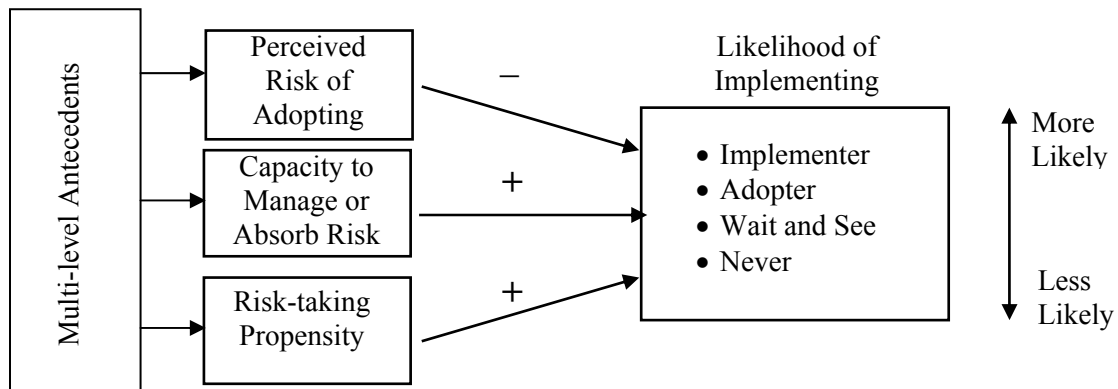
In addition to the literatures germane to the four EBPs that we are studying, IDARP lies at the crossroads of several streams of research which include the literatures related to the diffusion, adoption and implementation of innovations, organizational change, strategic decision making, and healthcare planning and implementation (Panzano, Roth, Crane-Ross, et al., 2002). These bodies of knowledge have shaped our research models, design, and methods and also account for the following major assumptions that guide IDARP. First, EBPs are innovations, as they are expected be perceived as “new” by organizations considering their adoption. Second, scientific evidence is necessary but not sufficient for organizations to decide to adopt EBPs. Third, upper echelon theory is methodologically relevant because the perceptions and attitudes of top managers partly explain organizational decisions and actions (Hambrick and Mason, 1984). Fourth, implementation effectiveness affects innovation effectiveness (Klein and Sorra, 1996) which, together, define implementation success. Fifth, factors at “multiple levels of analyses” are expected to impact the success of implementation (Klein, Dansereau and Hall, 1994). Finally, three key phases of the innovation adoption process (i.e., initiation, decision, implementation) (e.g., Rogers, 1995) need to be examined in order to fully understand the outcomes of efforts to implement EBPs.

The diverse literatures and the many assumptions that underlay IDARP hint at the complexity of this research. The four models that guide the project are briefly described below.

Model 1: The Adoption Decision

The first IDARP model focuses on the decision to adopt (or not to adopt) an innovation such as an EBP. The adoption decision is the most widely studied of the three phases of the innovation adoption process and a myriad of factors have been linked to it. However, this research has been criticized for lacking a basis in theory.

Figure 1. Model 1: Decision to adopt an innovation as a decision under risk.



We are proposing a theory base for understanding the adoption decision. We conceptualize the decision as an organizationally-important (i.e., strategic) decision which involves risk (see Figure 1). Following this logic, the decision to implement is expected to be negatively related to the perceived risk of adopting, and positively related to the organization’s (a) capacity to manage implementation-related risks, and (b) historic propensity to take risks. IDARP directly assesses these three risk-related factors as well as a host of antecedent variables that are expected to explain them. We were interested in looking at antecedents because they can provide clues about what might be done to alter the three risk-related perceptions.

Model 2: Multi-level Model of Implementation Success

The second IDARP model expresses the idea that factors at many different levels of analysis impact implementation success. For example, system and professional norms are environmental level variables expected to impact the success of implementation efforts (see Figure 2). The quality of communication between adopting organizations and their CCOE is an inter-organizational level variable with likely implications for implementation success. Factors at the level of the adopting organization also are expected to be important. For example, the extent to which the organization has a learning culture that encourages employees to try new things without fear of reprisal if they don’t work out is expected to have an impact on the success of efforts to implement innovations. Variables specifically tied to the implementation of the innovation itself are particularly important. We call these project level variables. They are different from general organizational characteristics such as organizational size or culture. Instead, project level measures are directly connected to the implementation of a specific EBP and include variables such as the extent to which (a) dedicated or earmarked resources are available to support implementation, (b) the organization is committed to the decision to adopt the particular innovation, and (c) needed technical assistance is available to employees responsible for implementing the project.

Finally, characteristics of the innovation or EBP itself are expected to have an influence on implementation success. For example, innovation-level variables such as the extent to which the EBP is supported by scientific evidence and the complexity of the EBP are likely to impact the success of implementation efforts.

Figure 2. Examples of variables by level.

Level	Example
Environment	System and professional norms
Inter-Organizational Relationship (with CCOE)	Quality of communication
Organization	Learning culture
Project Re: Organization Re: Decision Re: Implementation	Availability of dedicated resources Commitment to decision to adopt Access to technical assistance
Innovation	Scientific evidence Experiential evidence

Defining Implementation Success

The dependent variables in the second IDARP model deal with implementation success. Implementation success is defined in terms of two classes of outcomes: measures of implementation effectiveness and measures of innovation effectiveness. (Klein and Sorra, 1996). Implementation effectiveness reflects the extent to which an innovation (e.g., EBP) is implemented accurately and consistently by committed, targeted employees. Fidelity is one specific indicator of implementation effectiveness. In contrast, measures of innovation effectiveness reflect benefits that accrue to an organization and its stakeholders as a result of implementing innovative practices. Positive outcomes for consumers fit into the category of innovation effectiveness measures. Although the link between implementation and innovation effectiveness is typically assumed rather than directly measured, it is generally assumed that implementation effectiveness has a positive impact on innovation effectiveness (e.g., Klein and Sorra, 1996; Conn, Klein and Sorra, 2001). We test this hypothesis in the present study.

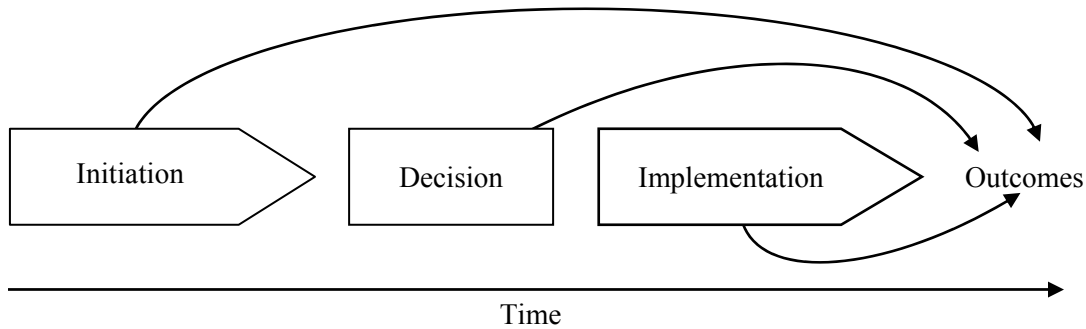
Thus, our second model or roadmap does two things. First, it defines implementation success as consisting of two related elements: implementation effectiveness and innovation effectiveness. Second, it identifies variables spanning multiple levels that are likely to explain the success of implementation efforts.

Model 3: Cross-Phase Effects on Implementation Outcomes

Our third model represents the important idea that aspects of each of the three key phases of the innovation adoption process are likely to impact the outcomes of implementation (see Figure 3).

Initiation, the first stage, begins with an awareness of a need, problem or opportunity facing the organization that warrants action. This awareness stimulates a search for solutions, which may include innovations such as EBPs. Potential solutions then are evaluated in terms of the extent to which they are likely to suit the particular need or needs facing the organization. The extent to which the EBP offers a good fit to the identified organizational problems or opportunities is one example of an initiation phase variable that is likely to be linked with implementation success.

Figure 3. Model 3: Cross-phase effects.



The initiation phase culminates with a decision made by an organization at a particular point in time about whether or not to adopt a particular innovation. This decision is likely to take the interests of some or many of the organizations stakeholders into account and can be arrived at in many different ways. If the decision is “no”, the process halts, at least for the time being. It may resume at a later point in time as circumstances and/or information change. If the decision is “yes”, the process proceeds to the next phase: Implementation. The extent to which the decision process involves many stakeholders (i.e., is a participative process) is one example of a decision phase variable that is likely to be tied to implementation success.

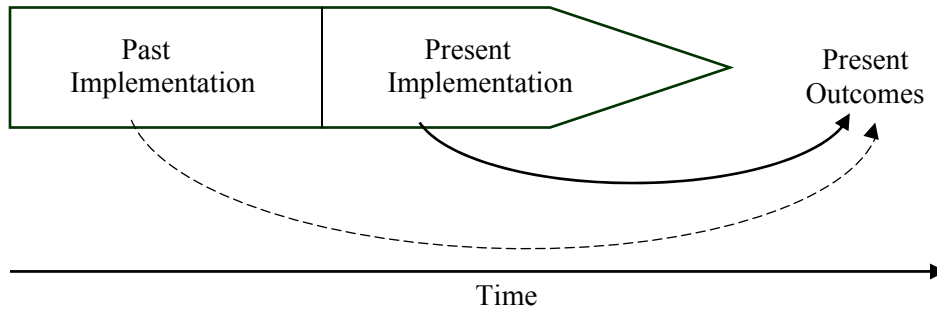
Implementation occurs after the decision to adopt an innovation has been made. The early part of the implementation phase is likely to involve working out details of the plan for getting the practice up and running, securing additional needed resources, and engaging in start-up activities such as hiring or training staff. When these activities are completed, the practice can then be put into actual use. With experience and time, it is conceivable that the practice may become part of the ongoing organizational routine. The extent to which implementation team members have access to needed technical assistance is certainly likely to make a difference when it comes to outcomes of the implementation process.

Thus, according to our cross-phase model, in order to fully understand the success of implementation efforts, one must consider not only what is happening during the implementation phase, but also what happened during earlier phases of the innovation adoption process.

Model 4: Effects of Implementation Variables on Outcomes Over Time

Our fourth model incorporates two major messages. First, past implementation policies *may or may not* explain what is currently being seen with regard to implementation outcomes. Some past (but discontinued) implementation policies and practices such as initial staff training may continue to have effects on present outcomes, whereas other past (but discontinued) implementation policies and practices such as praising staff for their efforts may no longer have a bearing on implementation outcomes. Second, what is likely to matter most are present implementation policies and practices. That is, what the organization is doing now with regard to implementing supportive policies is likely to have the greatest effect on present implementation outcomes.

Figure 4. Model 4: Effects of implementation variables on outcomes over time.



Methods and Progress to Date

Informants represent 71 behavioral healthcare organizations that have adopted or considered adopting one of the four EBPs and have had interactions with the CCOEs disseminating these practices. Of the 71 organizations, 19 adopted two or more EBPs for a total of 91 EBP projects. Since 19 organizations adopted more than one EBP, we refer to EBPs as projects, and our analyses are based on the 91 projects rather than the 71 organizations. The four EBPs and number of associated projects participating in IDARP are as follows: (1) Cluster-Based Planning, involving the use of a research-based consumer classification scheme ($n = 23$); (2) Multisystemic Therapy for youth, a model of intensive home-based treatment ($n = 17$); (3) the Ohio Medication Algorithms Project, an adaptation of the Texas Medication Algorithm Project ($n = 15$); and (4) Integrated Dual Disorder Treatment, a treatment model for individuals with mental illness and substance abuse ($n = 36$). The selection of EBPs was completed with the goal of maximizing generalizability of findings by selecting practices that varied on a broad range of factors thought to be related to implementation (e.g., EBP complexity, scientific evidence).

A longitudinal design is used to gather information about implementation efforts and outcomes as they progress. Projects are incorporated into the study at various stages of adoption and implementation, including organizations that have decided not to adopt (nonadopters), organizations that have not made a final decision (wait and see), those who have recently decided to adopt (adopters), those at various stages of implementation (implementers) and projects that have decided to rescind the adoption decision (de-adopter). At initial contact, data collection focuses on the adoption decision, early implementation efforts and an assessment of each organization’s stage of adoption (see Table 1). For projects that are in the adopter and implementer stages, second and third contacts are made, at intervals of approximately nine months. The primary focus of these follow-up contacts is on continued implementation efforts and outcomes.

Table 1. Participating Projects by Stage

	Non-adopter	Wait & See	Adopter	Implementer	De-Adopter	Total
First Contact	10	19	8	48	6	91
Second Contact	1	1	2	42	4	50

Data are collected from between two and five key informants for each project. The number of informants is related to the project’s stage of implementation, with fewer informants in projects in early

phases of decision-making and adoption (mean = 3.2 informants), than in projects in later phases of implementation (mean = 4.8 informants). Key informants include individuals involved in making the adoption decision (e.g., agency executive directors, medical directors), individuals involved in implementation of the practice (e.g., case managers, other clinicians), and individuals who have knowledge of organizational variables such as organizational structure and management style (e.g., chief financial officer). For implementation efforts that require collaboration with mental health boards and other service systems (e.g., juvenile justice system for MST), data are also gathered from key informants in these collaborative community service systems. In addition, data are gathered from the CCOEs about each participating project.

Key decision-makers, implementers and community collaboratives participate in confidential interviews that include open-ended and structured questions geared toward understanding individual perceptions about the adoption decision, strategies and tactics used to plan and implement the practice, and outcomes of implementation. Following each interview, informants are asked to complete a survey that includes additional questions related to perceptions about the innovation, the decision-making process, characteristics of the organization, the inter-organizational relationship with the CCOE, and several environment-level variables.

Currently we have complete information representing first contact. Two-hundred and twenty informants participated in interviews, and of those, 173 completed follow-up surveys, reflecting an 80% response rate. Chief Financial Officers (CFO) or executive team members also returned surveys connected to 80 of the 91 projects (88%), and key informants employed by a CCOE submitted follow-up questionnaires for 81 out of 91 (89%) projects. Overall, the average number of questionnaires received per project is 3.8, and the average number of interviews per project is 2.4.

Results

Findings reported below are framed in terms of the extent to which data support the four IDARP models. Because we are still actively gathering data, reported results are limited to basic descriptive findings and some preliminary examinations of inter-relationships among key model variables. Most IDARP variables are measured with multi-item scales that are internally consistent, $\alpha \geq .70$. All relationships reported are significant at a probability level of at least $p < .05$.

Model 1: The Adoption Decision -- a decision under risk. The analyses related to Model 1 are based on our first contact data because it focuses on the decision. Roughly ninety ($n = 91$) projects are represented by these data. As predicted, the likelihood of adoption was negatively related to the perceived risk of adopting ($r = -.51$) and positively related to the organization's capacity to manage risk ($r = .38$), and the organization's past propensity to take risks ($r = .20$). Thus, preliminary analyses lend support to the three primary linkages in Model 1.

Antecedent variables also were examined due to their expected links to the three risk-related factors in Model 1. As expected, negative relationships were found between perceived risk of adopting and three factors: (1) perceived relative advantage (i.e., the extent to which benefits are seen as outweighing costs) ($r = -.51$), (2) extent to which scientific evidence exists about the effectiveness of the practice ($r = -.20$), and (3) level of awareness of experience-based evidence (e.g., success stories from organizations that have tried it) attesting to the effectiveness of the practice ($r = -.30$). Perceived risk was also seen as lower by organizations that employ staff who are knowledgeable about the practice ($r = -.45$) and when professional and system norms are seen as favoring the adoption of the practice ($r = -.45$). Additional analyses suggest that the effects of these antecedent variables work through their impact on perceived risk. That is, perceived risk appears to fully mediate the effects of the antecedents on the adoption decision.

Expected relationships were found between several antecedents and the second factor shown in Model 1: reported capacity to manage the risks associated with implementation. Capacity to manage risk was seen as higher when the innovation was thought to be easy to put into use (i.e., ease of use was high; $r = .45$), and when the belief existed that most people trained to implement could do so consistently and competently (i.e., craft skills were seen as high; $r = .25$). Perceived capacity was positively related to top management support for the practice ($r = .50$), and the extent to which resources were specifically earmarked to support implementation efforts (i.e., dedicated resources were high, $r = .63$). Finally, as expected, we found one negative link between an antecedent and capacity to manage risk. When the organizational environment was viewed as hard to predict (environmental uncertainty was high), capacity to manage risk was seen as lower ($r = -.22$). Additional analyses indicated that the effects of these antecedents on the adoption decision are fully mediated by perceived capacity to manage risk.

Finally, two antecedents to organizational risk propensity were examined: learning encouragement and management attitude toward change. Risk propensity was positively linked to (a) learning encouragement ($r = .71$), defined as the extent to which the organization tends to encourage and reward staff for trying new things and does not punish staff when these efforts fail, and (b) management attitude toward change ($r = .23$), defined as the extent to which the organization's managers believe that change results in good things.

Data from our first contacts supports the idea that the decision to adopt an innovation such as an EBP is a decision involving risk.

Model 2: Multi-level model of implementation success. Our second IDARP model is concerned with implementation success and, consequently, is relevant only to the 50 cases in which organizations chose to adopt an EBP. Preliminary tests of bivariate model linkages were based primarily on data gathered at the second point of contact with those organizations. In other words, data upon which these analyses were based were gathered from both new and experienced implementers.

Dependent variables for Model 2 include measures of implementation effectiveness (e.g., fidelity/reinvention, assimilation) and measures of innovation effectiveness (e.g., positive outcomes for consumers) -- two components of implementation success that research suggests are related to one another (i.e., implementation effectiveness \rightarrow innovation effectiveness). As expected, a negative relationship was found between the extent to which the practice had been modified from its prescribed form (i.e., reinvention) and reported positive outcomes, whereas a positive relationship was found between the extent to which the practice had been assimilated into the organization's routine and positive outcomes. These findings lend support to the expectation that implementation effectiveness has a bearing on innovation effectiveness outcomes.

Our second model also hypothesized that these two classes of implementation success measures would be explained by variables spanning multiple levels of analyses. Simple bivariate correlations from our second contact data lend support to this idea. We considered factors linked to one measure of implementation effectiveness: assimilation. Assimilation is defined as the extent to which the practice (i.e., EBP) is viewed as permanent, or part of ongoing organizational operations. Assimilation was positively related to variables at multiple levels. Positive relationships were found between assimilation and: (a) quality of communication between the CCOE and the adopting organization, an inter-organizational level variable ($r = .45$); (b) the extent to which the organization was seen as having a learning culture ($r = .30$) and a centralized decision making structure ($r = .53$), two organizational-level variables, (c) the availability of dedicated resources for implementing the EBP ($r = .52$) and the extent to which implementation was seen as relatively easy ($r = .40$), two project-level variables, and (d) the extent to which the EBP was seen as compatible with the organization's treatment philosophy ($r = .45$), an

innovation-level variable. Thus, as expected implementation effectiveness, as measured by assimilation, was related to factors at multiple levels of analysis.

Model 2 also is concerned with whether measures of innovation effectiveness are explained by variables at multiple levels. Innovation effectiveness, as measured by six indicators (e.g., overall positive consequences, perceived positive outcomes for consumers, positive impact on organization functioning, positive impact on the organization's image, extent to which expectations had been realized, and global impact), was found to be related to the extent to which the adopting organization (a) identified with the CCOE ($r = .40$ to $.60$), (b) reported a capacity to manage implementation-related risks ($r = .37$ to $.40$), (c) had a system in place for monitoring performance outcomes related to implementation ($r = .52$ to $.74$), (d) had access to technical assistance related to implementation ($r = .48$ to $.66$) and (e) believed that scientific evidence was available to support the efficacy of the practice ($r = .30$ to $.60$). In contrast, the six indicators of innovation effectiveness were negatively related to the extent to which the practice had been modified from its prescribed form ($r = -.24$ to $-.49$).

Model 3: Cross-Phase Effects on Implementation Outcomes. Model 3 examines how approaches and strategies used during the initiation and decision phases are related to assimilation and positive outcomes in later phases of the implementation process. The analyses related to Model 3 involved first contact and second contact data. Bivariate correlations were calculated between initiation and decision phase variables at first contact and assimilation and positive outcomes at second contact. With regard to initiation phase variables, findings supported Model 3. Initiation phase variables assessed during first contact were found to be correlated with assimilation and positive outcomes at second contact. The correlation coefficients reported below represent the ranges across seven indicators of assimilation and positive outcomes described previously. Overall findings indicated that assimilation and positive outcomes were greater if: (a) staff had high expectations about the benefits of implementing ($r = .44$ to $.69$) (i.e., staff indicated that they were motivated to implement by the expectation that the EBP would improve consumer outcomes, improve the quality and efficiency of service, and result in political or strategic benefits for their organization); (b) initial perceptions about the advantages of implementing outweighed the disadvantages ($r = .59$ to $.74$); (c) there was a positive inter-organizational relationship with the CCOE ($r = .38$ to $.57$) (e.g., at first contact, agency staff indicated that the CCOE could be trusted, that they didn't have any hidden agenda or motives), and (d) outcomes of implementation were demonstrable or tangible ($r = .26$ to $.51$).

As expected, variables pertaining to the decision-making process, which were gathered at first contact, were related to assimilation and positive outcomes, gathered at second contact. For example, assimilation and positive outcomes were related to: (a) the extent to which the decision to adopt was based on objective decision-making strategies ($r = .37$ to $.71$); (b) the extent to which organizational leadership had access to high quality information during the decision phase to assist them in making the decision to adopt ($r = .34$ to $.61$); (c) the extent to which internal staff were involved and had an influence in the decision-making process (internal influence variable) ($r = .28$ to $.46$), and (d) the extent to which organizational leadership supported and demonstrated commitment to the decision to implement the practice at first contact ($r = .37$ to $.52$).

In summary, results of Model 3 suggest that variables in earlier phases can have enduring effects on implementation outcomes. Things that happen and strategies used early on, when people are initially considering and making decisions about whether to adopt an innovative practice, are important to long-term outcomes.

Model 4: Effects of Implementation-Phase Variables on Outcomes Over Time. Model 4 focuses on implementation-phase variables and how practices and strategies used during implementation affect outcomes over time. With regard to implementation-phase variables, Model 4 suggests that

policies and practices in place during early phases of implementation (first contact) have smaller effects on outcomes than policies and practices employed during later implementation (second contact). Correlations were examined between implementation variables, gathered at first and second contact, and outcomes (including assimilation and six positive outcomes), gathered at second contact. Though data collection is not complete, preliminary analyses, based on a comparison of the number of statistically significant correlations, provide support for Model 4.

Major findings were that (a) Top management support during early implementation (first contact) was related to none of the seven outcomes at second contact. Top management support during later implementation (second contact) was related to all seven outcome variables described above. (b) Having freedom to express doubt about the practice during early implementation (first contact) was related to three of seven outcomes at second contact. Freedom to express doubt during later implementation (second contact) was related to all seven outcomes. (c) Having access to technical assistance during early implementation (first contact) was related to only three of seven outcomes at second contact. Having access to technical assistance during later implementation (second contact) was related to all seven outcomes. (d) Having dedicated resources during early implementation (first contact) was related to none of the seven outcomes at second contact. Having dedicated resources during later implementation (second contact) was related to three of seven outcomes.

These findings suggest that implementation strategies need to be sustained in order to have positive impacts on long-term outcomes. Unlike initiation-phase and decision-phase variables that have lasting effects on outcomes, initiation-phase policies and practices are only effective as long as they are sustained.

Implications

Results of the project to date confirm the explanatory power of the four models and provide a great deal of guidance to organizations seeking to successfully adopt or maintain EBPs. It is possible to understand organizational behavior in this arena, and results have identified a number of leverage points in the process that can be used to influence agencies to adopt EBPs and to help those practices succeed and produce good outcomes for the agency and for consumers. Four important areas of implications emerged from the research.

1. Adoption decisions are made in a context of risk assessment. There is a decision process and a decision point within an agency about whether they're going to adopt an evidence-based practice. That decision is made in a context of risk assessment—the agency is going to weigh a lot of factors in trying to decide whether to do it or not. They're more likely to do it if they think the benefits would outweigh the risks, if they think they're going to be able to handle the risks, and if they are an organization that tends to be innovative. There are things that affect and shape those perceptions, and a number of those things can be influenced by an entity seeking to increase the level of adoption of EBPs.

Relative advantage was an important variable in the decision model—all the reasons why the agency thought it would be a good idea to do the practice—that differentiated between adopters and non-adopters. An educational campaign about EBPs can illuminate and explain all the advantages in order to make sure people are aware of them when they are making the decision. Scientific evidence was also important in the decision process; this information can also be communicated in an educational campaign. A big decision factor in whether agencies thought they could manage the risks was how easy they thought the practice would be to get up and running, and whether their staff could get the skills to do it. An entity like the CCOEs can focus on these things as part of their training programs, and hence, have a positive effect on the adoption decision.

2. Pay attention to multiple levels during the implementation process. Implementation is a complex process to sustain, because things can go wrong—or right—at many different levels in the process, and things at all the levels need to be given attention in order to help weight the balance toward success. The variable that had the highest correlations with positive outcomes was performance monitoring—the extent to which the agency actively watched what was happening as the practice was being implemented. If an agency trying to get a practice up and running would put in place an ongoing monitoring process, that would greatly enhance the chance that the practice will be a success. Ongoing access to technical assistance is also important at the project level, to help boost the chances for success.

Results showed a negative correlation with the variable of reinvention—in other words, the extent to which the practice is modified from its original tested form has a negative impact on success. Hence, it is important to pay attention to maintaining fidelity to the practice, and to the use of fidelity scales as part of an ongoing performance monitoring effort. At the organization level, having a learning culture within the organization is important. It takes time to build that kind of culture and give people those kinds of skills, but this can be fostered by good training and learning experiences through the CCOE. Results also showed that the relationship between the organization and the CCOE and the quality of the communication between them were crucial to implementation success.

3. All phases of the decision and implementation process are important, from the time when an agency starts thinking about an EBP, to the point where they actually decide to do it, to the time when they are implementing it. How things happen at the very beginning—back when the agency is in the thinking and discussion process—can affect whether there is success at the end. Relative advantage comes up here again—all the reasons why the agency originally thought it would be a good idea to do a particular practice. If that is really strong at the beginning—if there are lots of perceived advantages—it helps sustain the practice in the end, and maybe helps sustain people’s commitment when barriers start to arise. How the decision gets made is also important. If people in the organization feel like they have had influence, and if they feel the decision was an objective one, it helps sustain individual commitment to the practice and helps to get it embedded in the organization’s day-to-day business. It is also critical to have ongoing resources—money, personnel and time—assigned to the practice throughout the implementation phase.

4. Support the implementation over time. The successful implementation of an EBP is a long process by definition. It needs to become an ongoing part of business in an agency, therefore it needs ongoing care and feeding. Our results showed that there are a lot of things that can contribute to the early implementation being a success, and the effects of a couple of those do carry over to contribute to successful outcomes in later stages of implementation, like whether staff have the freedom to express doubts. But, and most importantly, most of them do not carry over. A critical variable here is top management support. Support at the beginning of the implementation has no impact on the later stages. Top management support for the practice is needed throughout the long, ongoing implementation for it to produce positive outcomes. Resources proved to be the same kind of variable. Dedicating money, time and personnel to the practice at the outset helps ensure early implementation success, but if those resources are not there over time, all the positive outcomes will not be there over time either.

Results to date are very encouraging in that the variables which are the most powerful predictors of evidence-based practice adoption or successful implementation are things that can be influenced by organizations and CCOEs. The presence of financial and other resources is important, but a number of other variables are equally or more important in helping ensure successful adoption and implementation and positive outcomes. The probability of success can be enhanced by affecting the thinking and decision process in an organization in a number of ways, and by watching what is happening at all the different levels that can have an impact on the process of the implementation. Doing things well at the beginning,

the middle, and the whole implementation process can greatly increase the possibility for successful assimilation of a practice and for good outcomes for both the agency and its consumers.

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Paper Presentations of the Research to Date

- Roth, D., Panzano, P., and Crane-Ross, D. (February, 2004). *Developing and sustaining systems of mental health evidence-based practice: A longitudinal look at factors associated with adoption and successful implementation of evidence-based practices in the Ohio mental health system.* Paper to be presented at the Fourteenth Annual Conference on State Mental Health Agency Services Research, Program Evaluation and Policy. Arlington, Virginia.
- Roth, D., Panzano, P., Crane-Ross, D. (November, 2003). *The innovation diffusion and adoption research project (IDARP): Moving from the diffusion of research results to promoting the adoption of evidence-based innovations in the Ohio mental health system.* Plenary presentation for the Ohio Department of Mental Health Research Results Briefing 2003: Knowledge to Enhance Quality in Changing Times. Columbus, Ohio: Ohio Department of Mental Health.
- Roth, D., & Panzano, P. (September 2003). *The innovation and adoption research project (IDARP).* Paper presented at the Making Gains Conference 2003. Niagara Falls, Ontario.
- Roth, D., Panzano, P., & Crane-Ross, D. (September, 2003). *Factors associated with the adoption and successful assimilation of mental health evidence-based practices.* Paper presented at the Ohio SAMI CCOE Conference 2003: Implementing Integrated Dual Disorder Treatment – Making Partnerships Work. Columbus, Ohio.
- Roth, D., Panzano, P., & Crane-Ross, D. (March, 2003). *Factors associated with the adoption and successful assimilation of evidence-based practices.* Paper presented at The Sixth All-Ohio Institute on Community Psychiatry, Cleveland, Ohio.

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