

Implementing Evidence-Based Practices

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Introduction

The emergence of the evidence-based movement is arguably one of the most significant developments to occur in criminal and juvenile justice over the past 20 years (Lipsey, 2010; Travis, 2012). In the early 1990s, the term “evidence-based” was largely unknown in the criminal and juvenile justice communities. Today, the imprint of the movement is widespread: crime control policy and program development processes are increasingly being informed by scientific evidence, and many practices in policing, corrections, delinquency prevention, and other areas are being shaped by evidence generated through research (Przybylski, 2012).

While evidence-based programs are desirable because they can help address social problems, their popularity has grown for accountability and efficiency reasons as well (Small, 2005). Today, more than ever before, taxpayers and government officials want to know that publicly funded programs are providing tangible, real-life benefits to people and communities. Evidence-based programs help fit the bill because given proper targeting and implementation, they can be expected to produce results in a cost-effective manner. With an evidence-based program, an organization can rely on a proven program model instead of programming through trial and error, thereby ensuring limited public resources produce a sound return on investment (Przybylski, 2008). As a result, programs that have been shown to work through rigorous scientific evaluation are being promoted nationwide, as incentives and even mandates for evidence-based programming are increasingly being used by funding agencies at both the state and federal levels.

Identifying and adopting evidence-based programs is only part of what is needed to ensure positive results. To be successful, evidence-based programs have to be delivered with integrity and fidelity in highly diverse and complex, real-world settings. As prominent criminologist and corrections researcher Joan Petersilia has stated: “The ideas embodied in innovative social programs are not self-executing. Instead, what is needed is an implementation perspective on innovation—an approach that views post-adoption events as crucial and focuses on the actions of those who convert it into practice as the key to success or failure” (Petersilia, 1990, p. 129).

Simply put, implementation matters. Both an effective program and sound implementation are needed to produce positive outcomes. Even the best programs are unlikely to realize their potential or even produce modest results without proper implementation.

This briefing deals with the critically important issue of program implementation. It describes key implementation challenges in the context of evidence-based programs and presents research-based strategies that can be used to facilitate sound implementation in real-world settings. It is designed to help State Administrative Agencies (SAAs) and their grantees achieve positive programming outcomes and realize the full potential of the evidence-based programs they adopt.

How Are Evidence-Based Programs Identified?

In criminal and juvenile justice, the term “evidence-based program” has generally been used to describe a program deemed to be effective based on rigorous scientific evaluation (Przybylski, 2008). While the process for determining whether a program is effective — and hence, evidence-based — is complex, conclusions about what works are always derived from an assessment of the evidence produced through trustworthy scientific research. Thus the process of identifying “what works” relies on the examination of research-based evidence, rather than opinion, anecdote, or personal experience.

A number of resources are currently available to practitioners seeking to identify effective and evidence-based criminal or juvenile justice programs. Although the specific criteria used to identify evidence-based programs can vary from one resource to another, all organizations involved in this work assess both the quality and consistency of the scientific evidence when determining whether a given program is effective. By examining the quality and consistency of the evidence, researchers and organizations attempting to identify effective programs can help ensure that their conclusions are scientifically valid and, from practitioner and policy maker perspectives, highly trustworthy.¹

The Defining Characteristics of a Program

A program is a planned, coordinated group of activities and practices carried out according to guidelines to achieve a specific purpose (CrimeSolutions.gov, n.d.). All programs are essentially defined by their activities (e.g., a defined curriculum, an explicit number of treatment or service hours, and an optimal length of treatment) and practices (e.g., motivational interviewing; computerized crime analysis) whether or not the program has a “brand” name, a manualized set of procedures, or is delivered in one or more settings. These program activities and practices, and the manner in which they are configured, coordinated, and delivered to a specified target population, are often called the program model. The designation of any program as effective and evidence-based is based on scientific evaluation of whether or not that specific program model is effective at producing one or more specific outcomes. Hence, to achieve the expected result, an evidence-based program must be implemented in a manner that is consistent with its program model. Changing the model prior to or during implementation defeats the purpose of using an evidence-based program, as it changes the program itself, and any expectation for positive results is no

¹For more information about how evidence-based programs are identified, see the JRSA briefing *An Introduction to Evidence-Based Practices*.

longer valid. In other words, to have a reasonable expectation of success, evidence-based programs must be implemented with fidelity to the program model.

Implementation Fidelity

Implementation fidelity refers to the degree to which a program's implementation in any real-world setting matches what was stated in the original program model. No matter where an evidence-based program is adopted and implemented, the goal should be to achieve the highest degree of implementation fidelity possible. In other words, an organization should always strive to deliver all program parts and activities precisely as they were prescribed in the program model.² Adhering to the model as closely as possible substantially increases the odds of attaining positive outcomes.³ Conversely, deviating from the model can not only degrade program effectiveness, it can actually create a situation where the program does more harm than good.

Evidence-based programs have to be implemented properly in order to be effective. For example, research has consistently shown that thorough implementation and competent program delivery result in larger reductions in recidivism, while partial implementation and poor delivery can degrade a program's recidivism effect (see Barnoski, 2004, and Lipsey, 2009). In an evaluation of the outcomes produced when Functional Family Therapy – a highly effective, evidence-based program – was implemented on a statewide basis in Washington's juvenile justice system, Barnoski

In 2002, researchers at the Washington State Institute for Public Policy (WSIPP) published a study of Functional Family Therapy (FFT) for the state's juvenile offenders (WSIPP, 2002). FFT is a structured family-based intervention that uses a multi-step approach to enhance protective factors and reduce risk factors in the family. The study examined a sample of 427 families who received FFT, and compared them with families who were eligible for FFT but did not receive services. The competence of the 36 therapists that delivered FFT was rated by the program developers based on therapists' adherence to the program model. The results showed that youth in families that were treated by therapists rated as competent had lower recidivism rates than youth in the comparison group. However, youth who were treated by therapists rated as incompetent or borderline competent had higher recidivism rates than the comparison group that did not receive FFT. The WSIPP study provides one example of how deviating from a program model can have harmful effects on youth outcomes.

²The amount and nature of the information available for any specific program model varies greatly from program to program. "Brand name" programs are often more likely to have detailed information available than other types of programs.

³Practitioners should carefully examine information on the intended target populations and other characteristics of the model programs to see how these compare with their own local circumstances. See the Core Program Components and Program Adaptation section of this report for further information.

(2004) found that a lack of adherence to the program model not only degraded program effectiveness, it actually increased the recidivism rate of program participants.

Real-world outcomes and benefits are shaped by both the quality of the program and the quality of its implementation. To achieve positive outcomes, both an effective program and high-quality implementation are needed. In fact, there is strong empirical evidence demonstrating that an effective program coupled with poor implementation is likely to produce outcomes that either are inconsistent, unsustainable, or just plain poor (Fixsen, Naoom, Blase, Friedman, & Wallace, 2005). Even sound implementation cannot salvage the poor or even harmful results that an ineffective program will produce.

Achieving Implementation Fidelity

Empirical evidence regarding the importance of implementation, and the challenges implementation presents, has been available for many years. These were key themes and findings in the classic study conducted by Jeffrey Pressman and Aaron Wildavsky in Oakland, California, called *Implementation: How Great Expectations in Washington Are Dashed in Oakland; Or, Why It's Amazing that Federal Programs Work at All*. In that study, which was first published in 1973, Pressman and Wildavsky documented just how difficult program implementation is in real-world settings. One key finding from their study that remains highly relevant today is that there were no extraordinary circumstances that derailed the implementation of the programs they examined. The problems were routine, ordinary, and “every day” in character. As Pressman and Wildavsky pointed out, we often underestimate just how complex implementation really is. “We do not begin to appreciate the number of steps involved, the number of participants whose preferences have to be taken into account, or the number of separate decisions that are part of what we think of as a single one” (1973, p. 93). As a result, implementation is extremely difficult, even under the best circumstances, with the most skilled and dedicated staff (Pressman & Wildavsky, 1973, p. xiii).

The challenges associated with program implementation have been documented in contemporary research as well. For example, a 2011 Westat study of a nationally representative sample of school-based programs designed to prevent youth substance abuse and school crime found that only 3.5% of these programs were research-based and properly implemented (U.S. Department of Education, 2011). A 2013 study conducted by the Penn State

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University EPISCenter found that nearly half of the Blueprints for Violence Prevention program implementations in Pennsylvania involved adaptations of the programs in some way. Using criteria they developed, the researchers concluded that the majority (53%) of the adaptations were likely to negatively affect program effectiveness (Moore, Bumbarger, & Cooper, 2013).

These types of problems have led to what Dean Fixsen and his colleagues have labeled the “implementation gap” in evidence-based programming. Simply put, what is adopted is not used with fidelity, and what is used with fidelity is not sustained for a useful period of time or on a scale sufficient enough to impact social problems in a significant way (Fixsen, 2012).

Fortunately, science also is beginning to identify the common characteristics of programs that have been implemented with high fidelity and that achieve sustainable and scalable positive results. Known as implementation science, this knowledge base provides important insights that organizations and practitioners can use to facilitate the sound implementation of evidence-based programs.

Implementation Science

Implementation science is a field of research as well as a body of scientific knowledge that can be used to support high-quality implementation in complex, real-world settings. Although it is a relatively new and emerging discipline that only recently has become a part of programming conversations in the criminal and juvenile justice communities, implementation science has been embraced in the fields of public health and international development for many years. The basic goal of implementation science is to create generalizable knowledge that can be applied across disciplines and settings to support high-quality program and policy implementation.

While numerous scholars have contributed to the development of implementation science, researchers at the National Implementation Research Network (NIRN) at the University of North Carolina have played a pivotal role in synthesizing research on implementation and building a knowledge base that policy makers and practitioners can easily access and use. In their 2005 report titled *Implementation Research: A Synthesis*

Strategies traditionally employed to promote the use of evidence-based programs, which are insufficient to achieve sound implementation and produce positive outcomes, include:

- the diffusion and dissemination of information;
- passing laws or using other mandates;
- providing funding, or using funding incentives;
- training; and
- organizational development.

of the Literature, Fixsen and his colleagues at NIRN pointed out that many of the strategies that have been traditionally employed to promote the use of evidence-based programs are insufficient to achieve sound implementation and produce positive outcomes. These strategies include:

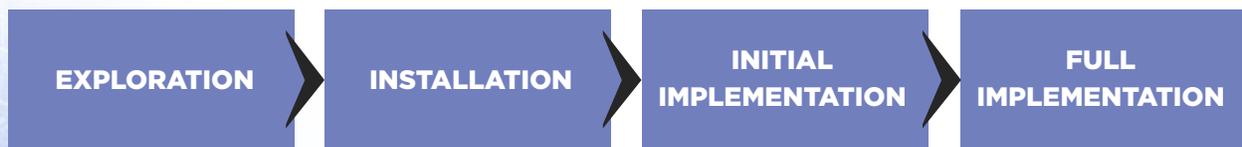
- the diffusion and dissemination of information;
- passing laws or using other mandates;
- providing funding, or using funding incentives;
- training; and
- organizational development.

It is not that these strategies are not useful, particularly when they are part of a comprehensive and integrated implementation effort. On their own, however, they are insufficient for achieving successful program implementation. In fact, research suggests that only 5% to 15% of programs will achieve positive outcomes when relying solely on any one of these implementation supports (Fixsen et al., 2005).

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Another important insight that has emerged from implementation science is that program implementation is a process, not an event. Sound implementation occurs through a series of stages that even in the best circumstances can take 2-4 years to complete (Fixsen et al., 2005). *Exploration*, which is characterized by knowledge acquisition, occurs first. Interest in an evidence-based initiative grows, and the organization acquires information about

the program of interest. This first stage typically concludes with a “go” or “no-go” decision regarding the adoption of the new program. This is followed by an *installation* phase. The decision to move forward has been made, and preparation work begins (for example, resources are secured and initial staff training takes place). Once the requisite preparation is complete, *initial implementation* occurs. Newly trained practitioners begin delivering the program to a small number of clients. There is an initial change in practice, but it can be awkward and fraught with problems,



because experience with the new program is limited. Resistance to new ways of working with clients and other problems often emerge full force during this stage, and they frequently present an insurmountable obstacle for many new initiatives. *Full implementation* occurs when new skills and ways of doing business are fully integrated into practice, full staffing and client loads are achieved, and the innovation becomes accepted practice. Full implementation is difficult to achieve without proper implementation supports.

What Can be Done to Support High-Quality Implementation?

Implementation Drivers

Implementation science also provides important insights about what organizations can do to support the high-quality implementation of an evidence-based program. Based on the commonalities found among successfully implemented programs, researchers at NIRN have identified several core implementation components, which are often referred to as implementation drivers (Fixsen & Blase, 2009). These drivers include: staff selection, pre-service and in-service training, ongoing staff coaching, staff and program evaluation, facilitative administrative support, and systems interventions (Fixsen et al., 2005). Integrating these drivers in a coordinated and comprehensive manner maximizes their positive influence on implementation. In addition, the implementation drivers are capable of compensating for one another so that a weakness in one can be overcome by strengths in another.

Staff Selection. Careful consideration should be used to select the staff responsible for delivering a new program, and the qualifications, knowledge, and skills needed to effectively deliver program activities should always be considered in advance. The timing of hiring new staff, recruitment methods, and hiring criteria need to be carefully considered. New ways of implementing interventions may require revisions to established recruitment methods and hiring criteria.

Pre-service and In-service Training. As in any new initiative, the development of staff competencies in the delivery of the new program is essential. Practitioners typically need to learn the underlying rationale for the new program, the various components and activities that make up the program, and the practices and skills they will need to deliver the program effectively (Fixsen et al., 2005). Training can impart new knowledge and skills to staff not only during the start-up phase of the program, but throughout the life of the program as well. The resources needed to support effective pre-service and in-service training must be carefully considered in advance.

On-the-Job Coaching. While appropriate pre-service training is essential, there is scientific evidence that in-service training, particularly on-the-job coaching following initial training, is critical for long-term success. In the education field, for example, one study found that initial training involving the exchange of information, skill demonstration, and even practice with feedback all had virtually no impact on the use of newly taught skills in a practical work setting. However, when training was followed by on-the-job coaching, 95% of the participants who received training and coaching used the new skills they were taught when delivering them in practice (Joyce & Showers, 2002).

When initial job training is accompanied by on-the-job coaching, 95% of individuals implement learned skills in practice. Initial training without coaching has virtually no impact on use of skills in a work setting.

In criminal justice, James Bonta and his colleagues at Public Safety Canada examined the impact of a training program for probation officers as part of the Strategic Training Initiative in Community Supervision (STICS) project (Bonta, Bourgon, Rugge, Scott, Yessine, Gutierrez & Li, 2011). The training consisted of multiple components: pre-service training followed by on-the-job skill maintenance that involved monthly meetings where probation officers could discuss and practice their skills; formal clinical feedback on officer-client sessions; and a refresher course which took place approximately one year after the initial training. Study results showed that the initial training was insufficient for imparting new skills, and that on-the-job support aimed at skill development and maintenance was critical. Probation officers who were more involved in the on-the-job clinical support activities demonstrated more of the skills that were taught in training, and their clients had better recidivism outcomes, than officers who were less involved in on-the-job support activities.

On-the-job support is critical to skill development and maintenance. Probation officers who were more involved in the on-the-job clinical support activities demonstrated more of the skills that were taught in training, and their clients had better recidivism outcomes, than officers who were less involved in on-the-job support activities.

Staff and Program Evaluation. Staff performance evaluation plays an important role in the program implementation process. Ultimately, the success or failure of any program is intimately tied to the competency of staff delivering the program. Assessments of staff performance should be directly related to the new way of doing business, as staff adherence to program protocols has a direct relationship to program effectiveness. Staff performance evaluations should be practical so they can be done routinely and integrated with what has been taught in training, particularly the on-the-job coaching process (Fixsen et al., 2005). Coaches should be adept at using information from

performance assessments to mentor peers, and they should have extensive experience with the techniques they are mentoring their peers to use. Supervisors who are responsible for conducting staff performance evaluations need to be well prepared for their roles as well (Fixsen et al., 2005). Sometimes existing staff performance review processes or merit criteria have to be revised to incorporate incentives and rewards for competency in the new way of doing work. Staff members who resist new ways of engaging in practice will have little incentive to change if they continue to be rewarded through pay increases or promotions simply because performance review processes or criteria fail to reflect new ways of doing work (Fixsen et al., 2005).

Data-driven assessments of the overall program are also a critical implementation driver. Ongoing fidelity assessments (discussed below) are the principal mechanism for identifying implementation problems and deviations from the program model. They should be used by program management and staff as an early warning system to identify implementation problems before they become intractable, so that corrective action can be taken.

Facilitative Administrative Support. The implementation of a new evidence-based program also requires organizational supports that help rather than hinder the new way of doing business. Leadership to address technical problems as well as the adaptive challenges that often emerge with a new initiative may be the most important form of support an organization can provide. Technical challenges typically relate to resources, time and scheduling, equipment/technology, and other related issues. Technical problems are relatively easy to identify and they can often be solved by an expert or someone in a position of authority. Adaptive problems, on the other hand, typically revolve around changes in roles, relationships and approaches to work, and the resistance and push-back that often accompany changes in identity, power, or authority (National Implementation Research Network, 2014). Since adaptive problems often relate to organizational culture or individual values, they can be difficult to identify and easy to deny. Moreover, they typically cannot be solved by simple edict, and solutions can take time to implement. Without supportive and consistent leadership, evidence-based initiatives are unlikely to be implemented properly or realize their full potential.

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Data to inform decision making and support implementation also is key. A facilitative administration makes use of data on staff performance, implementation fidelity, and progress in obtaining desired outcomes on a regular, ongoing basis. Data should be used in a formative manner to monitor implementation, identify problems, and guide adjustments that can maximize program effectiveness.

Systems Interventions. Finally, systems interventions are strategies to work with external systems to ensure the availability of the financial, organizational, and human resources required to support the work of practitioners in an evidence-based initiative. Unfortunately, systems tend not to be very accommodating to innovation and change. They almost always exert pressures to alter a new initiative so it fits into the existing system and program delivery structure with the least amount of change. Fortunately, implementation science suggests several strategies can be used to help address the pressures to resist innovation and change that are inherently found in existing systems.

One strategy to address resistance to change is the establishment and use of an implementation team. An implementation team is a group of individuals at the organization or individual program level who facilitate and are directly accountable for implementation activities. The team typically consists of three to five people with the expertise to promote effective, efficient, and sustainable implementation and organizational change (Fixsen et al., 2005). As a group, the team has the knowledge, skill, freedom, and authority to act within the larger organization or a collaboration of agencies, and the team actively supports and facilitates implementation on a daily basis. In practice, team members help in: planning the implementation, identifying and addressing implementation challenges, and ensuring that fidelity is achieved and maintained.

Another important systems intervention strategy is the use of communities of practice. A community of practice is a group of people who share a concern or a passion for something they do who learn how to do it better through regular interaction with one another (Wagner, 2014). Communities of practice may involve any mechanism or venue that can be used for regular, ongoing, face-to-face practitioner interactions. They serve as a way for practitioners who are working in the same area to come together to discuss their craft, the techniques they use, the problems they encounter, and the solutions they try, so they can learn from one another and advance their craft as a community of peers. Communities of practice that cross disciplines and agency boundaries can be particularly advantageous.

Communities of practice are valuable in the context of evidence-based programming because as Tom Schwandt, one of the nation's leading scholars on evaluation and practice, has pointed out, practice is far more than merely a "site or location for the delivery of scientifically valid solutions" (Schwandt, 2005, p. 97). Scientific knowledge is certainly important, but effective practice also requires judgment and the ability "to size up the situation" and know how scientific knowledge can best be applied (Schwandt, 2005, p. 98). Practitioner experience and craft knowledge are important components of sound program delivery, and communities of practice can provide an important mechanism for practitioners to identify and address the challenges that emerge whenever a new program is being implemented.

Measuring Implementation Fidelity

Fidelity Criteria and Fidelity Assessments

Systematically measuring and monitoring implementation fidelity are perhaps the most important activities an organization can undertake to facilitate the sound implementation of an evidence-based program. A number of strategies for accomplishing this have been developed in recent years, and they provide valuable insights for establishing fidelity criteria and conducting fidelity assessments.

At the broadest level, both the program structure (framework for service delivery) and program processes (the way in which services are delivered) should be examined (Mowbray, Holter, Teague, & Bybee, 2003). Program structure refers to elements like the participation of requisite partner organizations; resources allocated to the program; staffing levels and characteristics; and the presence of key program elements. Program processes are concerned with adherence to program protocols or procedures, the frequency and intensity of services provided (i.e., supervision contacts or treatment sessions), and the quality with which program staff delivers services.

Building on implementation research that has been conducted in a range of disciplines, including juvenile justice, researchers at NIRN have suggested that fidelity assessments need to be concerned with a program's context, compliance, and competence (Fixsen et al., 2005). Context refers to the prerequisites that must be in place for a program to operate, such as staff qualifications and numbers, practitioner-consumer ratio (e.g., caseload size for a specialized probation or parole officer), and completion of requisite training. Compliance refers to the extent to which the program and staff use the core intervention components prescribed in the program model and avoid those proscribed by the program or practice. Competence refers to the level of skill shown by the program staff while delivering the program to clients or consumers in the real world. Although the quality of service delivery can be difficult to measure, particularly in an objective and quantifiable manner, research has shown that practitioner competence is an important factor in the delivery of evidence-based programs (Fixsen et al., 2005).

In a 2004 report on successful program implementation, Sharon Mihalic and her colleagues at the University of Colorado Center for the Study and Prevention of Violence identified the following four areas as important elements of a fidelity assessment (Mihalic, Irwin, Fagan, Ballard, & Elliott, 2004):

- Adherence to the program model: Is the program being delivered as it was designed, with all core components in place, the appropriate target population being served, staff trained appropriately, and the right protocols and materials used?

- Dosage or exposure: Do program participants receive the amount of the intervention prescribed in the program model (i.e., number of treatment sessions, frequency of treatment sessions, length of each treatment session, and duration of treatment overall)?
- Quality of program delivery: Do staff members deliver the program with skill, using the techniques or methods prescribed in the program model?
- Participant responsiveness: Are program activities appropriate given the gender, culture and developmental capabilities of program participants, and are program participants engaged by program activities?

Again, measuring the quality of program delivery, as well as whether program participants are engaged by program activities, can be difficult. But like quality of service delivery, participant responsiveness can be an important indicator of whether or not the program is on the right track. Indeed, participant responsiveness has been identified as one of the key elements of effective correctional intervention, and research has shown that participant engagement can significantly impact program success (see, for example, Marques, Wiederanders, Day, Nelson, & van Ommeren, 2005).

Implementation Checklists

As the importance of sound implementation has become better known, checklists that can be used to guide and assess implementation are being developed for a growing number of program models. SAMHSA and the Council for State Governments, for example, have developed a checklist for implementing evidence-based practices and programs for justice-involved adults with behavioral health disorders (Blandford & Osher, 2012). Checklists typically specify a program's objectives and activities, and they present in a step-wise fashion recommended standards for implementing and maintaining the program. In some cases, detailed planning, management, and assessment checkpoints are presented, including key performance metrics that can be used to evaluate program implementation and effectiveness. While implementation checklists are available for only a limited number of program models at this point in time, they are likely to be developed for many more program models in the future. Given their user-friendly and practical nature, implementation checklists are valuable tools, and any organization intending to adopt and implement an evidence-based program should investigate whether an implementation checklist is available for the specific program model they intend to use.

Moderators of Implementation Fidelity

Several factors can affect an organization's ability to implement an evidence-based program with a high degree of fidelity, including the complexity of the program, facilitation strategies that are available to the implementing organization, and the responsiveness of staff and clients. While each of these factors can exert its own influence on implementation, they also can interact and influence each other, and in turn influence implementation in highly nuanced ways.

Complexity of the Program

Complex interventions are generally more difficult to implement with fidelity than simple interventions. As the number of program components, collaborating agencies, and program activities increases, so do opportunities for deviating from the program model. But the manner in which a program model is described can make a difference. When the information describing the program lacks specificity, even simple programs can be difficult to implement with fidelity. Conversely, program models that are highly structured or that provide specific implementation guidelines or protocols to follow tend to facilitate higher levels of adherence to the model, regardless of the complexity of the program (Carroll, Patterson, Wood, Booth, Rick & Balain, 2007).

Facilitation Strategies

Facilitation strategies refer to the level of support available to an organization that embarks on the implementation of a new program. Facilitation strategies include manuals, training, and certification processes provided by the program's developers, and technical assistance that may be provided by the program developer or a purveyor organization. Examples of the latter include the assistance the U.S. Department of Justice, Office of Justice Programs' Diagnostic Center provides to jurisdictions across the country, or the assistance the Penn State University EPISCenter provides to Pennsylvania jurisdictions implementing evidence-based violence prevention programs. Generally, when implementation guidance and support can be readily accessed, organizations have a much greater chance of implementing the program with fidelity, even if the program is highly complex (Carroll et al., 2007).

Program Participant and Staff Responsiveness

Finally, participant responsiveness and engagement in the program can affect implementation. If clients fail to see the relevance of program activities or are unable to benefit from them for developmental, cultural, or other reasons, engagement and therefore implementation fidelity are likely to be adversely affected. But responsiveness also applies to the staff and leadership that are responsible for delivering the program. If buy-in and commitment on the part of staff or leadership are inconsistent or missing altogether, the quality of program delivery is likely to suffer. Implementation fidelity is more likely to occur when staff and leadership have enthusiasm for the program as well as a commitment to the program's success. As Mario Paparozzi, one of the nation's leading experts on probation practice, has stated:

Implementation fidelity is more likely to occur when staff and leadership have enthusiasm for the program as well as a commitment to the program's success.

Staff training...when layered atop individual values and political environments that are philosophically contrary to the underpinnings of clearly articulated evidence-based practices, is ineffective. The values and belief systems of individual correctional practitioners and organizational cultures must be concerns of the first order.... The importance of the relationship between committed and competent leaders and successful program implementation cannot be overstated (Paparozzi & Guy, 2013).

Core Program Components and Program Adaptation

The term "core components" refers to the parts of a program that are vital for program success. They are essential features that should not be eliminated or altered prior to or during program implementation. If they are changed or left out for any reason, the nature of the program itself changes, and the expectation for a positive result that accompanies an evidence-based program is no longer valid.

Knowing the core components of an evidence-based program is clearly advantageous from an implementation perspective. If the core components are known and specified in the program model, organizations can take steps to ensure that those components are implemented with the highest degree of fidelity possible.

Ideally, the core components of an evidence-based program should be known before program

adaptation of any kind is attempted. Adaptation refers to the deliberate or accidental modification of a program, including: deletions or additions to, or enhancements of, program components; changes in the manner or intensity of administration of program components; or cultural and other modifications required by local circumstances (Backer, 2002).

In recent years, there has been considerable debate among program developers, researchers, and practitioners about the perceived need for and inevitability of program adaptation. Indeed, adaptation remains a controversial topic, with some people adopting a strict pro-fidelity stance, and others accepting or even encouraging adaptation as a way to bring evidence-based programming to a broader range of jurisdictions and organizations.

From an implementation science perspective adaptation is a concern. Finding the right balance between fidelity and adaptation remains exceptionally difficult, as the core components of a program are often unknown, and guidelines or thresholds that are empirically tested and that might be used to inform adaptation decision making are not yet available. Thus, unless the program's core components are known and implemented with fidelity, program planners and staff inclined to pursue adaptation of proven program models are largely moving into uncharted territory and may be risking harm. Given the evidence regarding the overall importance of fidelity, adaptation is likely to be advantageous only when it is highly strategic, guided by scientific evidence, pursued with caution and monitored to prevent potentially harmful effects.

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Summary

Evidence-based programs can help jurisdictions across the country produce results in a cost-effective manner. Adopting programs that have been scientifically proven to work, however, is only part of what is needed to ensure positive results. Evidence-based programs must be delivered with integrity and fidelity in highly diverse and complex, real-world settings to be successful. Even the best programs are unlikely to realize their potential without proper implementation.

Implementing an evidence-based program is not an easy task. A wide range of problems can derail implementation, thereby degrading the program's effectiveness or even creating a situation where the program does more harm than good. Moreover, implementation problems often result from circumstances that are routine, ordinary, and "every day" in character. As a result, implementation is extremely difficult, even with the most skilled and experienced staff.

Implementation science provides important insights that can be used to facilitate the sound implementation of evidence-based programs. Drawing on the common characteristics of properly implemented programs, implementation science has identified “drivers” of sound implementation. Systematically measuring and monitoring implementation fidelity also is critically important. Finally, the core components of an evidence-based program should be known before adaptation of any kind is attempted. Given the importance of implementation fidelity, adaptation is likely to be advantageous only when it is guided by scientific evidence, pursued with caution, and monitored to prevent potentially harmful effects.

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