

Program fidelity and adaptation:
Meeting local needs without compromising program effectiveness

WHAT WORKS, WISCONSIN – RESEARCH TO PRACTICE SERIES

ISSUE #4, APRIL 2007

BY CAILIN O'CONNOR, STEPHEN A. SMALL, AND SIOBHAN M. COONEY
University of Wisconsin-Madison and University of Wisconsin-Extension

A major appeal of evidence-based programs is their promise of effectiveness. These programs have shown, through rigorous evaluations, that they can significantly affect important outcomes for participants. The best of them have demonstrated positive effects in a number of different settings. For policymakers, funders, and program practitioners, that potential for effectiveness can make an evidence-based program more attractive than an unproven program. However, we can only assume that a program will continue to have those effects if it is implemented according to the original program design. Staying true to the original program design is referred to as *program fidelity*. Unfortunately, true program fidelity is not easily achieved in practice. Practitioners often change or adapt evidence-based programs as they implement them, whether intentionally or not.

For many years, there was a debate in the scientific literature over whether adaptation of evidence-based programs was at all acceptable. In recent years, the conversation has turned more to which approaches to program adaptation are acceptable and which types are likely to undermine program effectiveness [1]. In this *Research to Practice Brief*, we explore the types of changes that are sometimes made to programs and the effects those adaptations can have. We then suggest strategies for maintaining program effectiveness, based on research about evidence-based program implementation and adaptation.

Program adaptation and its effects

Programs are often adapted from their original design when they are implemented by a new organization, in a new community, or by a new staff member. Changes might be made to a program to better meet the needs of the community where it is being implemented, to fit the program within an organization's budget or calendar, or to accommodate the preferences of the local staff members facilitating it. While adaptations for some of these reasons may be justified, changes to the content, duration, or delivery style of the program can diminish the program's effects.

One very common reason for adapting a program is a perceived cultural mismatch between a program and its targeted audience [2]. Although research shows that, for example, juvenile delinquency programs tend to be equally effective for youth from many cultural backgrounds [3], cultural mismatch continues to be a concern in many communities.¹ A large study of the effectiveness of the Substance Abuse and Mental Health Services Administration (SAMHSA) Model Programs in various settings offered some support for adaptations designed to address cultural mismatch: the researchers found that fidelity to the original program design was generally important to program effectiveness, but less so when there was a cultural mismatch [4]. In other words, in situations where the "culture" of the program was different from the culture of the target audience, adaptations were less damaging to the program's effectiveness. However, another study found that culturally adapted versions of a violence prevention program had higher retention rates but weaker outcomes when compared to the non-adapted program [5]. The authors suggest that, although the adaptations made the program more

¹ Issue #1 in this series addresses the issue of culture and evidence-based programs.

Types of program adaptations

Acceptable adaptations:

- ◆ Changing language – Translating and/or modifying vocabulary
- ◆ Replacing images to show youth and families that look like the target audience
- ◆ Replacing cultural references
- ◆ Modifying some aspects of activities such as physical contact
- ◆ Adding relevant, evidence-based content to make the program more appealing to participants

Risky or unacceptable adaptations

- ◆ Reducing the number or length of sessions or how long participants are involved
- ◆ Lowering the level of participant engagement
- ◆ Eliminating key messages or skills learned
- ◆ Removing topics
- ◆ Changing the theoretical approach
- ◆ Using staff or volunteers who are not adequately trained or qualified
- ◆ Using fewer staff members than recommended

attractive to participants and improved retention rates, the adaptations also may have eliminated crucial elements of the original intervention, making it less effective.

Other intentional changes to evidence-based programs may have similar effects, making a program more attractive to potential participants or sponsoring agencies, but potentially reducing or eliminating the positive effects of the program. Cutting the number or length of program sessions is a common example. Organizations often worry that potential participants will be unable to commit to a lengthy program, so they shorten it. Or, in times of tight budgets, agencies may reduce the number of staff involved in delivering a program or use volunteers or paraprofessionals who do not have adequate experience or training. Unfortunately, reducing the "dosage" of a program, changing the staff-to-participant ratio, or staffing the program with less qualified personnel is likely to diminish

the program’s effectiveness. Sufficient dosage and the opportunity to form positive relationships with well-trained staff have been identified as important principles of effective prevention programs [6].

Eliminating parts of a program’s content and shortening the duration or intensity of a program are the riskiest forms of adaptation. A piece may be removed that was critical to the program’s effectiveness; there may not be enough time for participants to develop a key skill, or to build the relationships that are critical to the change process. On the other hand, adding material or sessions to an existing program while otherwise maintaining fidelity does not generally seem to have a detrimental effect. One study even showed that adaptations that added components to an existing program tended to be more effective than programs implemented without added components [7]. However, other researchers point out that components added at the local level have the potential to be counterproductive – for example, adding lessons based on scare tactics, which research has shown to be harmful – and can jeopardize the overall success of the program [8].

Another pervasive type of program adaptation comes in the form of unintentional changes that are made as the program is implemented over time. This is sometimes referred to as “program drift” [1]. These changes may happen when a facilitator adjusts the program to fit his or her facilitation style, eliminates content he or she doesn’t like, or adds in pieces from other curricula that may not support the goals of the program. As the number of these changes grows, it becomes less and less likely that the implemented program will have the promised effects. For this reason, it is not uncommon for evidence-based programs to require regular “re-certification” of facilitators and provide tools to measure program fidelity.

Strategies for maintaining program effectiveness

If you have made the decision to implement a proven or evidence-based program, implementing the program as it was designed should be your goal. As you prepare for and implement an evidence-based program, keep the following strategies in mind to minimize the risk of reducing program effectiveness.

◆ Select a program that meets your needs.

In general, the fewer changes that are made to a program, the more likely it is to have the desired effect on participants. It is almost always preferable to choose a program that won’t need to be adapted, rather than getting into the risky business of program adaptation. Before purchasing a program or deciding to implement it, analyze the program, the curriculum, and any accompanying handouts or recruitment materials to determine whether they are appropriate for your target audience and your organization. Look at the program with a critical eye, considering whether it would make sense and appeal to members of your audience, and whether it seems like it would have the desired effect on their knowledge, skills, relationships, or behavior. To the extent possible, find a program that will need little to no adaptation for your circumstances. If this is not possible, select a program that has been adapted for other audiences in the past, or one whose developer is willing to assist you in the adaptation process.²

² Issue #3 in this *Research to Practice* series addresses guidelines for selecting an evidence-based program.

- ◆ **Ensure that staff members are committed to program fidelity.** Decisions about program selection, adaptation, and implementation should involve all relevant staff members, particularly those who will be staffing or facilitating the program. They need to be comfortable with the material and the style of interaction, and they also must commit to delivering the program as agreed. Particularly when a program is being implemented by more than one staff member or in multiple locations, commitment from all staff is critical to ensuring program success.
- ◆ **Contact the program developer.** Program developers can tell you whether they or others have already adapted the program for specific audiences or circumstances. Program developers can also provide you with key information about the theory and assumptions that influenced the program’s development. You can typically find contact information for program developers on registries of evidence-based programs.³ Getting input from the program designer is one of the best ways to ensure that any adaptations made to the program are appropriate. Many program developers will be happy to discuss your plans for implementing or adapting the program.
- ◆ **Determine the key elements that make the program effective.** Sometimes called *core components analysis* [1], this is the process of identifying the “active ingredients” in the program, those things that are responsible for a program’s effectiveness. Ideally, you would get this information from the program developer based on his or her research and exper-

³ Program registries are on-line guides to effective programs created and maintained by federal agencies or research organizations. Issue #3 in this *Research to Practice* series includes information about some of these registries and how to use them.

ience. More and more evidence-based programs are identifying their core components, often as they develop guidelines for implementation and tools for measuring program fidelity. For example, the Families and Schools Together (FAST) program allows local implementation planning teams to modify up to 60% of the program content as long as they implement the core components identified by the program developer [9].

- ◆ **Assess the need for cultural adaptation.** Keep in mind that culture is reflected both at the surface level of the program, such as the language and visual symbols used, and at a deeper level, for example in the risk and protective factors that are targeted [10].
 - **On the surface level,** consider the language used in the program; the visuals, examples and scenarios used; and the activities that participants are asked to engage in. For example, when the Strengthening Families Program for Parents and Youth 10-14 was adapted for use with Hmong families in Wisconsin, changes were made to de-emphasize verbal and physical expressions of love among family members, and activities that required physical contact were modified to make the program culturally acceptable. These types of changes, which tailor the existing program to a particular group of participants, are unlikely to diminish the program’s effectiveness.
 - **At the “deep” level** of program structure and goals, the cultural mismatch may be more subtle and harder to pinpoint. There is also a greater risk of reducing the program’s impact when changes are made at this level. Making adaptations to the program’s targeted risk and protective factors or other “deep” elements of the program design should probably not be attempted unless it’s done in collaboration with the program’s developer. If you are

considering these types of changes, look first for a different program; one better suited to meet your needs may be available.

- ◆ **Stay true to the duration and intensity of the original program.** Several studies have indicated that fidelity to program intensity, or the amount of contact participants have with the program and the length of time they are involved in the program, is one of the keys to replicating the effects of an evidence-based program [11]. It is also this aspect of a program that is most likely to be changed, whether because of budgetary concerns or in an attempt to make the program more appealing to participants. For example, a program designed for seven weekly sessions may not have the same effect if all the content is presented in two full-day sessions. Even though all the content may be covered, participants will not have time to practice the new skills they are learning or to integrate these changes into their everyday behavior. Similarly, condensing the material to limit the program to four weekly sessions will likely reduce the program's effectiveness: critical content may be cut inadvertently, in addition to the risks posed by reducing participants' contact with the facilitator and the program. It is important to follow the program's guidelines for how often the program meets, the length of each session, and how long participants stay involved.

- ◆ **Take steps to avoid program drift.** Facilitators and managers should use tools provided by the program developer to monitor program implementation. Be vigilant in tracking how the program is implemented and address any unintentional variation from the original program design. This is particularly important if a program is handed off from one staff person to another, and when a program is being implemented at multiple sites or by multiple staff members.
- ◆ **Stay up-to-date with program revisions and new materials.** Evidence-based programs may be periodically revised and updated, or new materials may become available as the program developers continue their research on the program's effectiveness. Check the program's website, or contact the program developer and ask to be informed of any updates to the program or materials.

In summary, program adaptation is not a task to be taken lightly, if it occurs at all. Taking program selection seriously, being thoughtful about what (if anything) you change, and adding appropriate components or topics as needed will help you to avoid changing the core components of the program and diluting its effectiveness.

Sources

1. U.S. Department of Health and Human Services. (2002). Finding the balance: Program fidelity and adaptation in substance abuse prevention: A state of the art review. Retrieved March 1, 2006, from <http://modelprograms.samhsa.gov/pdfs/Finding-Balance1.pdf>
2. Castro, F.G., Barrera, M., & Martinez, C.R. (2004). The cultural adaptation of prevention interventions: Resolving tensions between fidelity and fit. *Prevention Science*, 5, 41-45.
3. Wilson, S.J., Lipsey, M.W., & Soydan, H. (2003). Are mainstream programs for juvenile delinquency less effective with minority youth than majority youth? A meta-analysis of

- outcomes research. *Research on Social Work Practice*, 13, 3-26.
4. Emshoff, J., Blakely, C., Gray, D., Jakes, S., Brounstein, P., et al. (2003). An ESID Case Study at the Federal Level. *American Journal of Community Psychology*, 32, 345-357.
 5. Kumpfer, K.L., Alvarado, R., Smith, P., & Bellany, N. (2002). Cultural sensitivity and adaptation in family-based prevention interventions. *Prevention Science*, 3, 241-246.
 6. Nation, M., Crusto, C., Wandersman, A., Kumpfer, K., Morrisey-Kaner, E., et al. (2003). What works in prevention: Principles of effective prevention programs. *American Psychologist*, 58, 449-456.
 7. Blakely, C.H., Mayer, J.P., Gottschalk, R.G., Schmitt, N., Davidson, W.S., et al. (1987). The fidelity-adaptation debate: Implications for the implementation of public sector social programs. *American Journal of Community Psychology*, 15, 253-268.
 8. Elliott, D.S. & Mihalic, S. (2004). Issues in disseminating and replicating effective prevention programs. *Prevention Science*, 5, 47-52.
 9. Wisconsin Center for Education Research. (2006). Families and Schools Together: Research and program development: Implementation. Retrieved December 19, 2006, from <http://www.wcer.wisc.edu/fast/imp/start.htm>
 10. Dumka, L.E., Lopez, V.A., & Carter, S.J. (2002). Parenting interventions adapted for Latino families: Progress and prospects. In J. Contreras, K.A. Kerns, and A.M. Neal-Barnett (Eds.), *Latino children and families in the United States: Current research and future directions* (pp. 203-233). Westport, Conn.: Praeger.
 11. Allen, J.P., Philliber, S., & Hoggson, N. (1990). School-based prevention of teen-age pregnancy and school dropout: Process evaluation of the national replication of the Teen Outreach Program. *American Journal of Community Psychology*, 18, 505-524.

WHAT WORKS, WISCONSIN: RESEARCH TO PRACTICE SERIES

This is one of a series of Research to Practice briefs prepared by the What Works, Wisconsin team at the University of Wisconsin–Madison, School of Human Ecology, and Cooperative Extension, University of Wisconsin–Extension. All of the briefs can be downloaded from www.uwex.edu/ces/flp/families/whatworks.cfm.

This series expands upon ideas that are discussed in *What Works, Wisconsin: What Science Tells Us about Cost-Effective Programs for Juvenile Delinquency Prevention*, which is also available for download at the web address above.

This publication may be cited without permission provided the source is identified as: O'Connor, C., Small, S.A. & Cooney, S.M. (2007). Program fidelity and adaptation: Meeting local needs without compromising program effectiveness. *What Works, Wisconsin Research to Practice Series*, 4. Madison, WI: University of Wisconsin–Madison/Extension.

This project was supported by Grant Award No. JF-04-PO-0025 awarded by the Wisconsin Office of Justice Assistance through the Wisconsin Governor's Juvenile Justice Commission with funds from the Office of Juvenile Justice and Delinquency Prevention.

The authors wish to thank Mary Huser of the University of Wisconsin–Extension and Gay Eastman of the University of Wisconsin–Madison for their edits, comments, and suggestions in the development of this Research to Practice brief.

