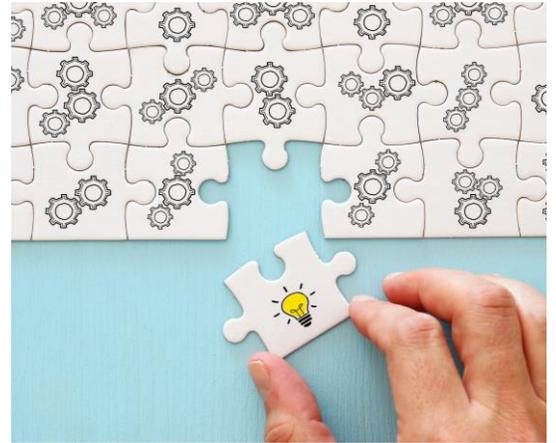# BALANCING FIDELITY AND ADAPTATION:
A GUIDE FOR EVIDENCE-BASED PROGRAM IMPLEMENTATION

Abstract

The adoption of an effective program is only the first step toward achieving the positive youth and family outcomes community-based organizations aim to achieve. Research has demonstrated time and time again that high-quality implementation is critical if evidence-based programs are to attain their intended goal of improved youth and family outcomes. However, there continues to be substantial debate about whether evidence-based programs should be flexibly adapted to fit local contexts versus delivered with strict fidelity.

This fact sheet will delve into the science of this debate, provide a useful analogy for understanding that science and present a best practices guide aimed at helping program coordinators and implementers effectively balance program fidelity with local adaptations in order to best meet the needs of their local communities.

The Fidelity versus Adaptation Debate: What can we learn from prevention science?

Prevention science has made tremendous advances in the past four decades in determining which programs are most effective at enhancing youth and family well-being in areas such as pro-social behavior and parent-child bonding, and preventing poor outcomes like youth substance use, delinquency, and violence (National Research Council & Institute of Medicine 2009). These programs are referred to as evidence-based programs because they are theoretically sound interventions that have been evaluated using a well-designed study and have demonstrated significant improvements in their targeted outcomes. In other words, research has demonstrated that participants who received the evidence-based program had significantly better outcomes in comparison to people who did not receive the program – and the only explanation for these better outcomes is the exposure to the program.

However, prevention science is increasingly recognizing that research evidence is only one piece of the puzzle (Kemp 2016). The program coordinators and implementers charged with delivering these evidence-based programs have years of experience and expertise about what works in their communities – this is often referred to as contextual or experiential evidence – and this type of evidence should also play a role in determining which evidence-based program to adopt and how to implement that program in a specific community (https://vetoviolence.cdc.gov/understanding-evidence).

Making decisions about how to adhere to the dosage, content, and structure of the program as it was originally designed (i.e., program fidelity) while adapting to local contexts is challenging and complex, particularly with limited resources, and program implementers are often left to make these decisions without much guidance. Fortunately, this fact sheet can offer some help.

Fidelity versus Adaptation: What does the research say?

Within the field of prevention science, there is still some debate about whether evidence-based programs should be adapted to fit local contexts versus delivered with strict fidelity (Barrera et al. 2017; Chambers and Norton 2016; Kemp 2016; Perez et al. 2015). Those who are proponents of the 'fidelity argument' say it is best not to tinker with a proven-effective program because if local implementers make changes, there is no guarantee that the evidence-based program will achieve the same positive outcomes as it did during the research studies that proved its effectiveness. The 'fidelity argument' also suggests that communities should leverage the program developers' expertise and thus deliver the program as originally designed with as little

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deviation as possible. The other side of the argument suggests that, in the real world, program adaptations are inevitable, and in fact, programs must be adapted to meet the unique needs of the local community. Whereas the 'fidelity argument' puts more weight in the program developers' expertise, the 'adaptation argument' stresses that the local program implementers' expertise about their community should inform how an evidence-based program is delivered in their community.

In their widely cited review, Durlak and DuPre (2008) found that 76 percent of the studies they reviewed showed that higher program fidelity was associated with improved participant outcomes. In the past, adaptation has been synonymous with lack of fidelity; therefore, it was assumed that making adaptations would result in lower fidelity and in turn lead to deleterious program outcomes. However, more research shows that it is possible for program implementers to make adaptations that enhance the effectiveness of evidence-based programs (Hill and Owens 2007). Rather than taking extreme positions on either side of the fidelity vs. adaptation debate, many researchers are beginning to recognize the importance of the middle ground, arguing that it is possible for fidelity and adaptation to co-occur without negatively influencing outcomes and in some cases may even improve program effectiveness and sustainability (August et al. 2010; Bopp et al. 2013; Colby et al. 2013).

Fidelity versus Adaptation: It's like baking a cake

Kemp (2016) argues that this middle-ground approach is best represented by a cake-baking analogy. If you are not an expert cake baker (i.e., program developer), you might want to use an *off-the-shelf* plain vanilla or chocolate cake mix as the foundation to your recipe. There is a core set of ingredients, methods, and equipment outlined by the cake mix that, if implemented with quality and fidelity, will produce a good-tasting cake. However, you may also need to adapt or modify this basic recipe to be more compatible with the ingredients, methods, or equipment available to you. And, you may want to add to or enhance them, depending on the tastes of the people for whom you are baking the cake.

In this analogy, the *core ingredients* are the components of the evidence-based program that are primarily responsible for producing the positive participant changes you aim to achieve. These *core ingredients* may be core content of the curriculum or required facilitator training – if you leave one out, your cake

won't taste very good. The *core method* for bringing these ingredients together is also important. For the cake analogy, this might be mixing the liquid ingredients together before adding the dry ingredients. For an evidence-based program, the method is how the program is delivered (e.g., group vs. individual format, lessons delivered in a specified sequence). The *core equipment* helps support the actions needed to enact the method and core ingredients. For the cake analogy, this could include mixing bowls and cake tins of various sizes, and wooden spoons or electric mixers. In evidence-based program implementation, the equipment needed may be more or less available in different communities, and therefore it is important to consider whether a program is a good match for a specific organization prior to implementing. Although there can be some modifications to these core elements, as much as possible they should be delivered as outlined in the established recipe (i.e., with fidelity) – and when adaptations are needed they should be made using best practices.

Strategies for Finding Balance: A best practices guide for balancing fidelity and adaptation

How does one stay true to the proven-effective evidence-based program (i.e., core cake recipe), while also meeting the needs of their community? This is the overarching question this fact sheet is designed to answer. The guide includes five best practices aimed to provide program coordinators and implementers with a key set of questions or points to consider before, during, and after program implementation (see Figure 1). These best practices were developed based on existing theory and research (Card et al. 2009; Kemp 2016; O'Connor et al. 2007).

Which best practices are most relevant to you and your organization can depend on several factors. One of the most important factors to consider is where you are in the process of program implementation. Are you early in the program selection process or are you an experienced implementer hoping to transfer your program to a new context or community? Figure 2 can help point you in the right direction—it provides guidance on where to begin and which best practices to consult depending on where you are in this process.

1 Select EBP that meets your needs

2 Determine core elements that make EBP effective

3 Assess the need for adaptation

4 Adapt EBP using best practices

5 Develop continuous quality improvement plan

Best Practices for Balancing Fidelity and Adaptation

Figure 1. This model outlines strategies that organizations delivering evidence-based programming (EBP) can use to assure they are staying true to the program's core elements while also meeting the needs of their community.

Pre-Implementation: You are in the process of identifying a program that meets your community's needs.

Start with Best Practice #1 and proceed through the others accordingly.

Novice Implementation: The program has been selected and you are in the early stages of implementation.

Do you have tools in place to help you monitor program implementation and participant outcomes?

If no, contact developer to see if there are established tools available. Use information from Best Practice #2 to inform the development of these tools.

Do you have a plan for how to regularly review the information gathered from these tools?

If no, consult Best Practice #5 to develop a process for this. After reviewing your data, consult Best Practice #3 and #4 to determine if and what type of adaptations are needed.

Experienced Implementation: You have experience implementing the program and are introducing it to a new context or community.

Are the characteristics of the new context or community similar to the previous one where the program has been shown to be effective?

If yes, you still may want to consult Best Practices #2-#5 if you have any reason to believe the program might need to be adapted.

If no, you should start with Best Practice #1 to assure that this program is in fact the most appropriate for this new context and then proceed through the others accordingly.
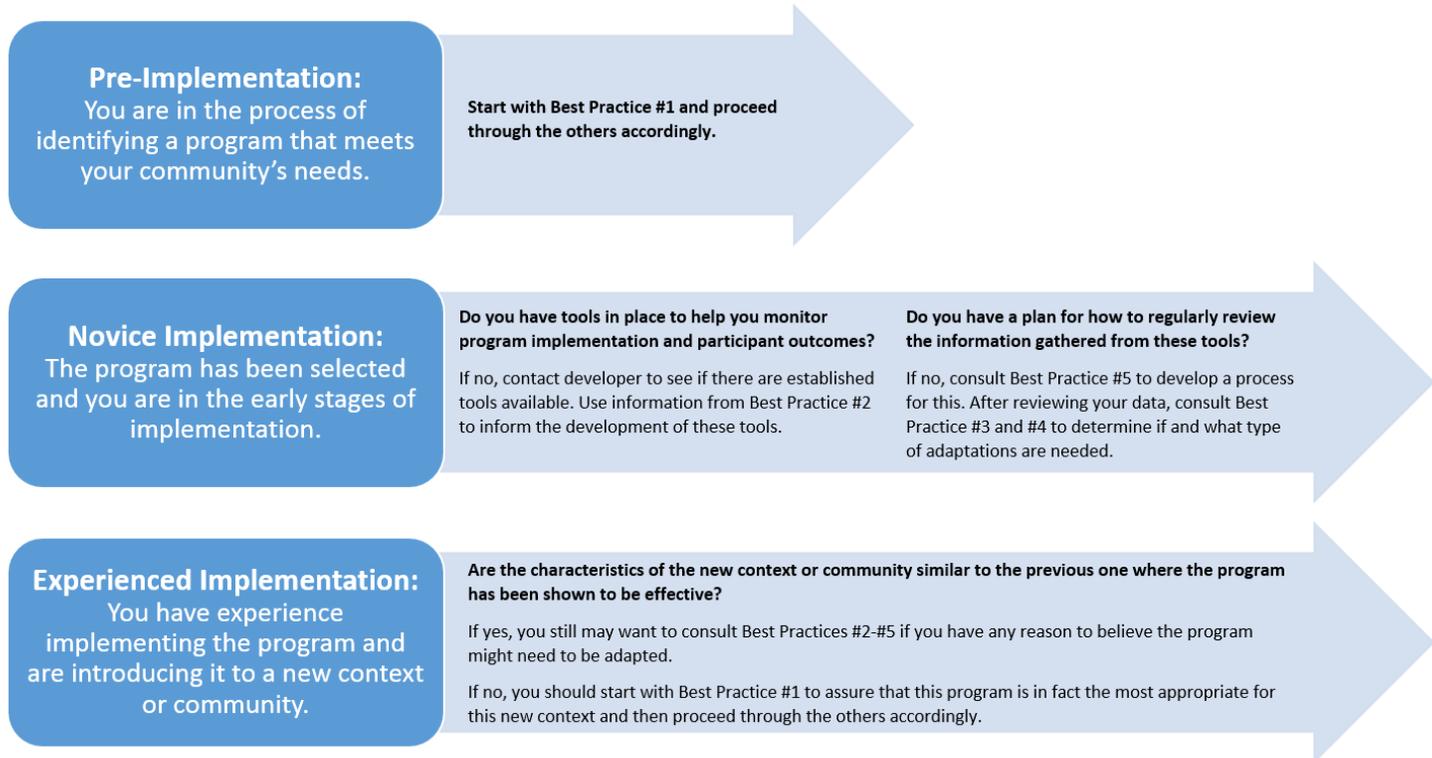
Figure 2. Identify where you are in the implementation process (boxes on the left) to determine which best practices are most relevant to your program (arrows on the right).

The section below suggests key questions and issues to consider for each best practice and then shares real world examples that illustrate how practitioners respond to fidelity and adaptation challenges using these best practices.

Best Practice #1: Select the Evidence-based Program that Meets Your Needs

Resources:

Blueprints for Healthy Youth Development:
https://www.blueprintsprograms.org/

U.S. Department of Justice Crime Solutions:
https://crimesolutions.gov/

U.S. Department of Education What Works Clearinghouse:
https://ies.ed.gov/ncee/wwc/

Community Toolbox – Criteria for Choosing Promising Practices and Community Interventions:
https://ctb.ku.edu/en/table-of-contents/analyze/choose-and-adapt-community-interventions/criteria-for-selectinng/main

Key Questions to Ask:

- Does the program target risk/protective factors and outcomes that are relevant for and acceptable to your community?
- Has the program shown strong evidence of achieving these outcomes in communities similar to yours?
- Does the program address knowledge, values, attitudes, skills, intentions, and other determinants of behavior that are relevant for and acceptable to your community?
- Does the program use content and methods that are likely to be accessible and appealing in your community?
- Does the implementing agency have access to the resources needed to acquire, plan and deliver the program?

Fidelity-Adaptation Challenge

Imagine you are a member of a local prevention coalition that chooses evidence-based programs for families and youth in your community. As a way of addressing the high dropout rate for Latino youth in your area, the coalition is interested in implementing a program that encourages teens to pursue higher education and engages parents in supporting this goal for their children. The program was developed and evaluated in a community representing a significant Puerto Rican population. The Latinos in your area are mostly Mexican. You want to make sure the program is appropriate and will meet the needs of families in your community.

Best Practice Response

You decide to work with a teacher and her Latino students from a leadership class in the local high school to get their cultural perspective on the program. As representatives of their community their insight is highly valuable to better understand their needs and interests related to the options of higher education. You design a simple worksheet for them to review the materials and give you feedback on whether the content and language are culturally relevant and address their needs. As part of the class project, students also go over the materials with their parents and get their opinions about whether the program would work for families like theirs. Remember, it is always preferable to choose a program that will not need to be adapted, but if you do envision needing to adapt a program, choosing one that most closely matches your community needs and resources is critical. It is also preferable that the program has been successfully adapted in the past and/or whose developer or trainers are willing to consult with you about the adaptation. An excellent tool to help evaluate a program according to needs, fit, resource availability, evidence, readiness, and capacity is the National Implementation Research Network's Hexagon Tool, which is freely available at: https://nirn.fpg.unc.edu/resources/hexagon-exploration-tool.

Best Practice #2: Determine the Core Elements that Make the Evidence-based Program Effective

Key Points to Consider:

Ideally you can obtain this information from the program developer or trainer, but regardless, you should take the following steps to learn more about the program's underlying theory and key elements.

- Gather program materials: statement of goals and objectives of the program, summary of underlying theory of change or rationale for why and how the program works, curriculum guide, and facilitator manual.
- Develop a program logic model: The Community Toolbox offers excellent resources for this at http://ctb.ku.edu/en.

Fidelity-Adaptation Challenge

Imagine you are the facilitator for a community task force that has been formed to address the problem of youth suicide after the tragic loss of two high school students who took their own lives. You found a prevention program that addresses a number of risk factors including those related to suicide. Because you anticipate that some adaptation will be necessary for local implementation, you want to make sure the task force

understands the core ingredients of the program that make it effective.

Best Practice Response

After each member of the task force reviews the program objectives and activities, you facilitate a group session to design a logic model for your local implementation. You are careful to make sure that your local context, resources, potential barriers, targeted youth audience, and desired outcomes are a good fit for the program you have selected. The process of doing the logic model together gives you new information about what will be required to implement the core ingredients of the program, while still meeting your community's needs.

Best Practice #3: Assess the Need for Adaptation

Resources:

Community Toolbox – Choosing and Adapting Community Interventions: https://ctb.ku.edu/en/table-of-contents/analyze/choose-and-adapt-community-interventions

Key Points to Consider:

- Identify and categorize mismatches between the original program model or materials and the new context.
- Mismatches can be found in: program goals and objectives; characteristics of the priority population (e.g., age, language); characteristics of the agency implementing the program (e.g., philosophy, staff credentials and expertise, staff cultural competence); characteristics of the community (e.g., social factors – cultural norms/values; political – laws; physical/environment – transportation).
- In consultation with the developer and using the guidelines outlined in Best Practice #4, decide whether these mismatches necessitate adaptations.

Fidelity-Adaptation Challenge

Imagine you are a nutrition educator interested in childhood obesity prevention. You recently piloted an evidence-based program for moms and their preschoolers that was developed and tested in an urban area. You are in a rural community working with low-income families. One challenge that surfaced in the pilot was that many moms struggled with activities that required reading and writing. You realize that literacy is a greater issue in your community than it was in the city where the program was originally implemented.

Best Practice Response

You contact the program developer to see if any alternative activities have been developed that are more experiential. She says no but is interested in this adaptation. You assemble a group of colleagues who are experts in experiential education and have worked with low-income learners to help you design activities that meet the objectives of the lesson but require less reading and writing.

Best Practice #4: Adapt the Program (if needed) Using Best Practices

Key Points to Consider:

Ideally you will do this in consultation with the program developer, but regardless there are some types of adaptations that are more acceptable and others that are riskier (O'Connor et al. 2007).

Acceptable adaptations are those which are unlikely to diminish the program's effectiveness. They include:

- 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 or based on literacy levels of the group
- Adding relevant, evidence-based content to make the program more appealing to participants

Risky or unacceptable adaptations are those which will likely diminish the program's effectiveness:

- 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
- Adding new sessions or content not part of the original program
- Changing the order of the sessions or activities

Any adaptations to the program's targeted risk and protective factors or other "deep" core elements of the program design should not be attempted unless it's done in collaboration with the program developer.

If these type of unacceptable changes are made, like in the example below, it would be inappropriate to consider it the same evidence-based program and further evaluation would be needed before making any claims about effectiveness.

Fidelity-Adaptation Challenge

Imagine you are a parent educator who is a certified facilitator for the evidence-based Strengthening Families Program for Parents and Youth Ages 10-14 (SFP 10-14). You are approached by an organization on a tribal reservation that provides housing and services to children who have been removed from their homes because of abuse or neglect. They would like to adapt SFP 10-14 so that it can be offered to the children in their facility. In some cases, parents will be able to attend but they will also have staff members serve as adult figures for the children whose parents cannot.

Best Practice Response

You realize that the program will require major adaptations to engage such a variety of participants, and that you will also need to adapt some of the activities to be more culturally relevant for American Indian youth and adults. You work closely with the staff of the organization to make the needed changes. After making many major changes to the curriculum and core elements, including a number of sessions and elimination of some topics, you realize that you cannot call the resulting program evidence-based nor can you use the "Strengthening Families Program for Parents and Youth Ages 10-14" name. The organization chooses a name that will be meaningful to their participants and you offer the adapted sessions with the new name – and develop a plan to evaluate the new program since you cannot be assured this new version will have the same impact and tested outcomes as the evidence-based SFP 10-14.

Best Practice #5: Develop a Continuous Quality Improvement Plan

Fidelity-Adaptation Challenge

Imagine you supervise instructors in an after-school program who have been offering an adapted version of an evidence-based program designed to increase the social-emotional skills of elementary-aged students. The program was adapted to reach a broader age range (including younger children) than the original version. You want to make sure that the changes you have made do not compromise the engagement of the children or the intended outcomes.

Best Practice Response

You design a checklist for the instructors to fill out weekly, noting their fidelity to the adapted version and indicating any issues with student engagement. You also have instructors utilize the evaluation provided in the original version to see if children are achieving the expected social emotional learning goals after participating in the adapted version of the program.

Key Points to Consider:

- Document and discuss progress related to fidelity, adaptations, participant engagement, and participant outcomes regularly in order to adjust as needed and assure quality implementation and positive participant outcomes.
- You can take steps to adhere to the core elements of the program by monitoring program implementation via tools provided by the program developer to ensure fidelity to the key elements of the program. For example, utilizing a fidelity observation form or implementation checklist to help track this information. If the developer does not provide monitoring tools, you can put together your own and have periodic training sessions with your facilitators to ensure that the program continues to be delivered with fidelity and/or adapted in response to emerging community needs.
- Stay up-to-date on program revisions and new materials by checking the program's website or contacting the program developer and asking to be informed of any updates to the program or materials.

Conclusion

Achieving positive youth and family outcomes through the implementation of evidence-based programs is rewarding but can also be challenging. Program coordinators and facilitators understand that high-quality implementation and maintaining program fidelity is critical to their success, but when they see mismatches between the evidence-based program and characteristics of their community, it can create tension – tension between staying true to the proven-effective program and meeting the needs of their community. This fact sheet was developed to help individuals faced with this dilemma find an appropriate balance by enacting five best practices: 1) selecting the most appropriate evidence-based program, 2) determining the core elements of the program that make it effective, 3) assessing the need for adaptation, 4) adapting using best practices, only if needed, and 5) developing a continuous quality improvement plan to assure the program is meeting your goals. Overall, we hope this guide shows it is possible to maintain evidence-based program fidelity while also making thoughtful, proactive adaptations to meet your community's needs.

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By
Brittany Rhoades Cooper, PhD Associate Professor and Extension Specialist,
Director Prevention Science Graduate Program Department of Human Development,
Washington State University
Louise Parker, PhD Professor and Extension Specialist, Department of Human Development,
Washington State University Extension
AnaMaria Diaz Martinez, M.Ed. Associate Professor,
Human and Family Development Regional Specialist, Human Development Affiliate Faculty,
Washington State University Extension

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