Evidence-informed program improvement

WHAT WORKS, WISCONSIN PROGRAM IMPROVEMENT MANUAL

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In recent years, professionals working in the human service and prevention fields have seen not only a growing number of evidence-based programs but also increased pressure on organizations to use these programs in place of others.[1] However, despite the advantages of using high-quality, empirically-tested programs, implementing an evidence-based program is not always the best option for every audience and community. In addition, the emphasis on implementing evidence-based programs overlooks that fact that many promising programs currently being implemented could become more effective through processes of program evaluation and improvement.

In this manual, we describe an approach for improving the effectiveness of existing, non-evidence-based programs. This approach builds on knowledge gained from years of research on the core components of effective programs. We refer to this approach as "evidence-informed program improvement" (EIPI) [1]. We begin by explaining the research basis for EIPI and outlining the EIPI process for agency and program staff interested in increasing the effectiveness of their existing programs. Following that introduction, the *Program Assessment Tool* describes common features of effective programs and provides questions for practitioners to ask themselves about their programs as they go through the process of EIPI. We also include an *Action Plan Template* to support the process.

Learning from evidence-based programs

Through several means, scholars have begun to distill the components of effective prevention programs that seem to be responsible for their positive effects. These common features are sometimes called "principles" [2], "active ingredients" [3, 4], or "best practices" [5]. The research methods used to identify these principles are varied. Quantitative methods include meta-analysis, which combines the results of many studies to determine overall trends and patterns in the effectiveness of interventions. Other methods are more conceptual, such as looking across programs

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[1] Evidence-based programs are programs that have demonstrated their effectiveness in rigorous, peer-reviewed evaluations. *What Works, Wisconsin* Research to Practice Brief #6, *Evidence-based programs: An overview,* provides an in-depth definition and discussion of evidence-based programs, including the advantages and disadvantages of implementing them.

to identify characteristics that appear to be associated with greater effectiveness, and drawing on the expertise of practitioners and researchers about what they believe is essential for program effectiveness.

Regardless of the methods used to arrive at them, the identification of common characteristics among effective programs offers an opportunity for program practitioners to reflect upon their own programs and the extent to which their programs share those features. By bringing programs more in line with what decades of research has shown to work, this process of comparison and reflection has the potential to lead to substantial improvements in program effectiveness.

The evidence-informed program improvement process

To carry out the EIPI process, it is best to assemble a group of stakeholders who are knowledgeable about and committed to improving your program. The group might include:

- ◆ Staff (particularly those responsible for developing and administering the program)
- ◆ Past or current participants in the program
- ◆ Board members
- ◆ Funders
- ◆ Community colleagues with expertise in the program's content area

Because a number of program dimensions need to be examined in this process, it may be desirable to complete the process over the course of multiple meetings. Another strategy is to divide the group into smaller work teams, each taking responsibility for a particular task or subset of program characteristics.

Each work team can then share its findings and insights with the rest of the group.

Each member of the group or work team should have a printed copy of the *Program Assessment Tool* and any other relevant materials you have gathered in advance (such as program documentation, recent evaluation results, program logic model, or research-based information on risk and protective factors or best practices related to your particular type of program). Review the tool and other materials individually and then as a group. Discuss each principle in the *Program Assessment Tool* and the questions that go with it. You might want to have someone take notes on what is discussed so you can refer back to it later.

People may have different perceptions of what goes on in the program and what its strengths and weaknesses are. Differing opinions should be taken into consideration and noted. When major disagreements occur, discuss them and see if they can be reconciled. Sometimes additional information or perspectives may be needed to help resolve these differences.

While the EIPI process can be completed without outside assistance, programs can often benefit from working with an external consultant. This is especially true after the initial process has been completed and the EIPI work team has identified a number of challenging program improvement tasks. An outside consultant can not only bring an objectivity to the process that can often evade those who work closely with the program, but he or she can also contribute expertise about program design, improvement and evaluation as well as knowledge about the content area of the program.

Gathering information for program improvement

The *Program Assessment Tool* in this manual describes general principles that should apply to most prevention and intervention programs. However, by searching the internet and academic resources, you may be able to find additional information and principles that address the specific outcomes, problems, or audiences that your program addresses. Either prior to getting your EIPI group together or as part of the work of that group, consider the following steps to gather additional information:

Find out what research says about which risk and protective factors and assets to target. Search the scientific literature for the risk and protective factors and assets related to your program's targeted outcomes. These will often be presented in the form of research reviews about a specific outcome (such as substance abuse or school success) or a specific program type.

Learn as much as you can about evidence-based programs that are similar to your program. Search program registries for EBPs that work with the same audience, have related goals, or are delivered in the same setting as yours.[2] Read program descriptions, talk to others who have implemented EBPs, and find out as much as you can about how these programs are implemented. You may discover some good ideas that could be incorporated into your program.

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[2] *What Works, Wisconsin* Research to Practice Brief #6, *Evidence-based programs: An overview,* includes a description and listing of EBP registries available online.

[3] See http://whatworks.uwex.edu to download *What Works, Wisconsin* Fact Sheets.

Review principles of effective programs for your specific program type. There may well be guidance available on effective programming for the specific outcomes, problems, or audiences that your program addresses. *What Works, Wisconsin* Fact Sheets are available on a number of program areas including truancy prevention and intervention, parenting education and support, mentoring, out-of-school time programs, and juvenile offender programs.[3] Searching the internet or academic literature may help you find similar guidelines for your type of program. Of course, some internet resources are undoubtedly more reputable than others, so be sure to examine recommendations with a critical eye.

Using the *Program Assessment Tool*

The *Program Assessment Tool* on the following pages describes 12 principles of effective programs. These principles were derived from previously published research and from our own experience working with both evidence-based and local programs. Additional information on the principles can also be found in our forthcoming article [1]. The principles are grouped into four categories, reflecting aspects of program design and content, relevance, implementation, and assessment. Each principle is followed by a set of questions to reflect upon and discuss regarding your own program and how it might be improved.

It is important to note that not all of these principles will be equally relevant for every program. In fact, it would be rare to find a single program that embodied all of these characteristics. For any given program, some principles will be more important than others.

Given a program's history, circumstances, and stage of development, some questions related to each principle will be more relevant than others. Although it is important to read through all the questions, you may want to focus your analysis and discussion on those questions that address the particular challenges faced by your program.

After completing the *Program Assessment Tool*

Identify areas where you would like to make changes to your program. Once you complete the entire *Program Assessment Tool* and review other relevant information that has been gathered, take some time to determine whether there are areas where everyone agrees there is room for improvement, and come to consensus on what areas will be targeted for improvement at this time. It is probably best to set a goal of making 1–3 improvements in a set timeframe (perhaps 2 to 3 months) so that you and other stakeholders are not overwhelmed.

Set reasonable program improvement goals. When first selecting areas to address, it is often productive to choose ones that are important but also relatively easy to accomplish. Success is much more likely if you select areas of program improvement that are easily attainable, not highly politicized, and agreed upon by most stakeholders. After the group has successfully made some small changes to the program, move on to some of the more challenging issues. Starting with easier program improvement tasks and building on small successes can lead to increased confidence and the ability to collectively tackle more difficult aspects of the program improvement process.

Use the *Action Plan Template* to lay out a plan for how you will implement the changes you want to make. Use one page for each of your program improvement goals, to show the steps to be taken to reach the goal, the timing of the steps (taking into account, for example, when a new session of the program is starting), and who will be responsible for each step. The *Action Plan Template* can also be downloaded as a Word document that you can type directly into and modify as needed. Go to: http://whatworks.uwex.edu.

Regularly check back in with your action plan to be sure you are progressing as planned, and adjust as necessary. This might become a part of regular staff meetings, or one person might be responsible for tracking progress on program improvement and reporting back to the EIPI work team.

Repeat the process as part of your program's quality assessment cycle. Remember, the most effective programs have staff who periodically assess how well the program is going and regularly work at improving it. The EIPI process should not be a one-time activity but a process integrated into your program's quality assessment and evaluation cycle.

Consider conducting a more formal program evaluation. After your organization has successfully gone through the EIPI process, and made a set of improvements, it may be ready to more formally evaluate the program. This might include assessing whether the program is meeting the needs of the intended audience, examining how well the program is being implemented, exploring the reasons why participants drop out, and/or evaluating whether the program actually leads to the impacts that it was designed to achieve.

Evidence-informed program improvement:
Program assessment tool

WHAT WORKS, WISCONSIN PROGRAM IMPROVEMENT MANUAL

This tool goes through 12 principles of effective programs, organized into four categories reflecting program design and content; relevance; delivery; and assessment and quality assurance. These categories are not mutually exclusive, but provide a general framework for thinking about different aspects of what a program does, how it does it, who it reaches, and how it is monitored and evaluated.

Program design and content

The first category of principles is related to the structure and content of a program.

- ◆ Effective programs are theory-driven.
- ◆ Effective programs are of sufficient dosage and intensity.
- ◆ Effective programs are comprehensive.
- ◆ Effective programs limit their use of fear and punishment.
- ◆ Effective programs use active learning techniques.

Program relevance

In effective programs, materials and activities are intentionally designed to reflect the targeted population's characteristics and needs.

- ◆ Effective programs are developmentally appropriate.
- ◆ Effective programs reach participants when they are ready to change.
- ◆ Effective programs are socio-culturally relevant.

Program delivery

The effectiveness of a program is as much a function of how it is delivered as what is delivered.

- ◆ Effective programs foster good relationships.
- ◆ Effective programs are delivered by well-trained and committed staff.

Program assessment and quality assurance

The final category of effective program principles deals with program documentation and evaluation.

- ◆ Effective programs are well-documented.
- ◆ Effective programs focus on evaluation and refinement.

PROGRAM DESIGN AND CONTENT

Effective programs are theory-driven.

Effective programs are based on empirically-supported theoretical models. They target risk and protective factors (or assets) that research shows are related to the program's targeted outcomes. In addition, an effective program's design and implementation are guided by a clear and logical program theory about how the program's activities are expected to lead to its intended goals. Ideally, there is empirical evidence that such activities are effective in bringing about the desired changes.

Questions about your program for reflection and program improvement:

◆ What is the theory guiding the program? Does research support the theory's validity?

◆ Which risk and protective factors and assets does your program target? Does research indicate that these factors are the most relevant to address?

◆ Can you clearly articulate the program's theory of change and how it operates to achieve the program's intended outcomes?

◆ Have you created a logic model that illustrates your program's theory of change? Do the program activities logically follow one another? Do they logically link to the program's objectives and goals?

◆ Is there any research evidence that the program's activities work to bring about the desired outcomes?

◆ Are there activities that appear to be unrelated to the program's objectives or goals and that might be dropped?

◆ Are there program goals or objectives that are not adequately addressed by the existing program activities?

◆ Are there changes that should be made to the program's activities to make them more consistent with the program's objectives?

Effective programs are of sufficient dosage and intensity.

Participants need to be exposed to enough of a program or intervention for it to have an effect. Dosage or program intensity can be measured in quantity of contact hours, duration of the total program, intensity and complexity of the program's activities, and participants' level of engagement. Generally, the more severe or entrenched the problem or issue being addressed, the greater the dosage and intensity need to be. Many effective programs also include booster or follow-up sessions to help reinforce behaviors and knowledge that might have faded over time.

Questions about your program for reflection and program improvement:

◆ How does the program dosage compare to that of similar evidence-based programs? Are the number of program contact hours and sessions sufficient for the outcomes you wish to achieve?

◆ Are the program activities intense and complex enough to bring about the changes desired?

◆ Does your target audience believe the program is interesting and engaging? Do participants want to attend long enough for the desired learning and behavior changes to occur?

◆ Are the changes addressed by the program likely to be sustained by participants after the program is over?

◆ Does the program include any booster sessions or other on-going contact with participants to help them maintain changes in their behavior after the program is over?

◆ What changes, if any, could be made to enhance the dosage and intensity of the program?

Effective programs are comprehensive.

The most effective programs recognize that individuals develop within many settings such as school, family, peer group, programs, workplace and neighborhood. Therefore, effective programs often target more than one setting in their prevention and intervention efforts, or partner with other programs that reach the same audience in different settings. For example, many effective preventative programs for children have components involving both families and schools. In addition, effective programs often simultaneously address more than one process related to human behavior or development. For example, a program for children with oppositional-defiant disorder might address the child's emotional regulation, parental discipline practices and the parent-child relationship.

Questions about your program for reflection and program improvement:

◆ Which processes in which settings does the program address?

◆ Does the program address a sufficient variety and number of processes, people and/or settings that research identifies as important for bringing about the changes desired?

◆ Which settings and processes are addressed by evidence-based programs with similar goals or audiences? What is the research basis for addressing those settings and processes?

◆ What additional processes, people, or settings could be targeted to strengthen the program?

Effective programs limit their use of fear and punishment.

Some programs use fear and punishment as a way to influence decisions or change behavior. However, many years of research have shown that fear-based teaching methods and punishment are often ineffective. While fear-based approaches may sometimes stop unwanted behaviors from recurring, they do not teach or promote positive behaviors that can replace these behaviors. Effective programs focus on building competencies and promoting other assets that will allow participants to be successful at changing their behavior and achieving positive outcomes for themselves. Positive behavior can be encouraged by providing individuals with necessary skills, rewards and incentives, adequate role models, and positive, personally valuable experiences that enhance a sense of competence and self-efficacy.

Questions about your program for reflection and program improvement:

◆ What role, if any, do fear and punishment play in your program?

◆ If there are behaviors or attitudes that your program hopes to reduce, does research suggest strategies other than fear or punishment that could be used to do so?

◆ What positive competencies and skill sets does the program try to promote?

◆ What positive behaviors could be promoted to replace harmful ones?

◆ What strategies could be used to promote positive behavior and develop desired competencies?

Effective programs use active learning techniques.

People learn best when they are actively engaged and have opportunities to practice new skills. Programs that use active and varied teaching methods and keep participants interested tend to be most successful. Whether allowing parents to practice using a calm tone of voice while disciplining their children or role-playing with youth how to refuse drugs in a real-world situation, effective programs engage participants in the material and encourage them to practice and apply new behaviors, rather than just presenting information.

Questions about your program for reflection and program improvement:

◆ Does the program require more active than passive participation?

◆ Are there parts of the program that participants often find boring? Are there times when they are disengaged?

◆ If behavior change is a goal, are there opportunities for participants to practice new skills and behaviors?

◆ Are there opportunities for participants to reflect upon and apply knowledge and skills to their own situation?

◆ Are there parts of the program that can be made more active and engaging?

◆ Can more opportunities be created for participants to practice critical skills?

PROGRAM RELEVANCE

Effective programs are developmentally appropriate.

Effective programs are specifically tailored to particular ages or developmental stages. Rather than trying to address the widest possible group of individuals or families, they acknowledge the developmental differences that often characterize children and youth of even slightly different ages. For example, effective programs for or about adolescents may take into account the powerful influence of peers in the learning process and recognize that this influence can be both a positive and negative force. For parents, a program that addresses their child's current developmental stage will typically be more attractive, engaging, and effective than a more general program. For prevention programs, it is also important that information is delivered neither too early (for example, drug prevention curriculum in first grade) nor too late (for example, abstinence promotion among teens who are already sexually active).

Questions about your program for reflection and program improvement:

◆ Does the program target risk and protective factors that are relevant for the participants' ages and developmental stages?

◆ Does the program use materials and activities that are interesting and engaging for the targeted age group?

◆ Are there ways to make the program's content or activities more developmentally appropriate?

◆ Is the age range of your audience too broad to be relevant for the participants?

◆ How can the program be better marketed toward a targeted age group? How can participant recruitment and screening focus on those individuals for whom the program is most appropriate?

Effective programs reach participants when they are ready to change.

Programs with the greatest impact intervene when the targeted individuals are most receptive to change. This can mean reaching out to families or individuals as they go through a transition (for example, birth of a first child, divorce, transition to middle school) or when a problem first becomes apparent (for example, a youth's first contact with law enforcement). In addition, effective programs are careful to confirm that participants are "program-ready" so that they are able to take advantage of the resources, support and learning activities that the program provides. Ensuring that participants are program-ready might mean connecting people to other programs and resources to help them first meet more immediate needs such as safety, housing, or treatment for substance abuse.

Questions about your program for reflection and program improvement:

◆ Given the goals of the program and existing evidence, what is the most optimal time for your target audience to participate? At what points do EBPs with similar audiences focus on recruiting participants?

◆ Are there criteria for who is allowed to enroll in your program? Do you have an effective method for determining who meets these criteria?

◆ Do you have a method for assessing whether an individual or family is "program-ready"? Do you need to develop or locate a method for assessing participants' readiness to participate and benefit from the program?

◆ Do some participants experience obstacles that keep them from fully benefiting from the program? If so, are there other services available in your community that can help them deal with these issues?

◆ Can you identify additional transitions or events that might motivate youth or families to participate in the program? How can individuals facing these transitions be made aware of your program?

Effective programs are socio-culturally relevant.

Tailoring a program to the cultural traditions of youth and their families can improve recruitment, retention, and overall program effectiveness. A family's culture encompasses not only their racial and ethnic background, but also their socioeconomic status or class; whether they live in an urban, suburban, or rural community; their religious traditions and beliefs; the parents' level of education; and, for recent immigrant families, length of residency in the United States.

A program is likely to be effective only to the extent that aspects of it, such as language and content, are relevant to the participants' lives. At the very least, program materials activities should be presented in a way that participants can relate to. This might mean, for example, using role playing scenarios and illustrations that reflect participants' experiences. In addition, program staff should feel comfortable working with the targeted cultural group and have a good understanding of their cultural traditions. This, or more in-depth cultural considerations in program design, not only makes a program more appealing to potential participants, but may make the program more likely to have an effect.

Questions about your program for reflection and program improvement:

◆ Are program staff comfortable working with the targeted population? Are staff members familiar with the targeted population's culture?

◆ Are all the program activities and materials consistent with the cultural traditions of the participants?

◆ Have representatives from the targeted cultural group reviewed the program materials for their cultural appropriateness?

◆ Are there ways that the program activities and materials could be made more consistent with the participants' culture?

◆ Are there EBPs available for similar audiences? Which of their program activities and components are designed to reflect the audience's culture? Can you integrate some of these ideas into your own programming?

Effective programs foster good relationships.

Behavior change most often happens in the context of positive, supportive relationships where individuals feel safe and trust one another. Effective programs are structured to foster trusting relationships over time among participants, staff, and volunteers. Thoughtful program planning requires recognizing that trusting relationships can take time to develop. For example, activities that require participants to reveal personal information to staff or each other should be saved for later in the program when there has been time for trusting and supportive relationships to develop.

Questions about your program for reflection and program improvement:

◆ How supportive, safe and comfortable do program participants feel while attending the program?

◆ How well do staff relate to one another and to program participants? Are staff respectful of participants and each other?

◆ Is the program delivered in a way that allows participants to develop positive relationships with each other and with staff?

◆ How can positive relationships among participants and between staff and participants be promoted and enhanced? What can be done to help participants feel more comfortable?

Effective programs are delivered by well-trained and committed staff.

Programs are more likely to be effective if they have well-qualified, well-trained and committed staff who run them. Staff effectiveness is often dependent on receiving supervision, support and recognition from managers, boards, and administrators. In addition, many successful programs have what is referred to as a "program champion," or someone in the sponsoring organization who is enthusiastic about the program and possesses enough organizational power to influence decisions and implement plans.

Questions about your program for reflection and program improvement:

◆ Are staff members given adequate training before implementing the program?

◆ Do staff members regularly meet to discuss and reflect on the program?

◆ Do staff members receive guidance and feedback from supervisors on a regular basis?

◆ How could staff training and supervision be improved?

◆ Is the staff enthusiastic about and committed to the program? Is there a high rate of turnover among program staff?

◆ What could be done to make staff feel more supported and rewarded for their work on this program?

◆ What could be done to increase staff members' investment in the program and reduce staff turnover?

PROGRAM ASSESSMENT AND QUALITY ASSURANCE

Effective programs are well-documented.

Documentation of what happens in a program is key to demonstrating and maintaining its effectiveness. When working with a locally developed program, it is important to document details about the program so that it will be consistent from one session to the next, and so that others can replicate it as closely as possible. Staff need to know what the program is designed to accomplish and the details of the program's components in order to successfully implement it. In addition, when implementing an evidence-based program or a program that has shown promising results in the past, it is important to track how well implementation matches the original program design. Finally, in order for a program to be evaluated – whether for improvement or impact – staff and evaluators need to have a clear understanding of what the program is all about.

Questions about your program for reflection and program improvement:

◆ Do the people running the program know what it is supposed to accomplish and what each session or component involves?

◆ Is the program adequately documented so that others could implement or replicate the program?

◆ Are session outlines, checklists, and other materials available to monitor how well the program is being implemented?

◆ What additional types of documentation does the program need in order to be well understood, replicable and ready for evaluation?

Effective programs focus on evaluation and refinement.

Evaluation is an important tool for learning about how well a program is doing and for developing ways to improve it. It is not a single activity. While a common type of evaluation involves assessing whether or not a program has an impact on participants, evaluation can take many forms. It can include assessing a program's quality, identifying problem areas, tracking implementation and guiding program improvement. Ultimately, in order for a program to be considered evidence-based, it will need to undergo a rigorous impact evaluation with some form of comparison or control group. However, before undertaking such an evaluation, it is important that significant time has been spent assessing and improving the program's functioning so that the sponsoring organization knows it has a well-functioning program worthy of an impact evaluation.

Questions about your program for reflection and program improvement:

◆ Who are the program's key stakeholders? What information about the program do they want to know?

◆ Do you have a system for monitoring how the program is implemented and for obtaining feedback about how various parts of the program are operating?

◆ How can current program participants assist you in the program improvement process? What information can they provide that would be potentially useful?

◆ What type of evaluation would be most appropriate for the program's current stage of development?

◆ What kinds of training, resources and technical assistance would you need to conduct an evaluation?

◆ What evidence do you have, if any, that your program really works in achieving its goals? What is the quality of this evidence?

◆ What are some short-, medium-, and long-term outcomes you could measure in an impact evaluation of your program?

Evidence-informed program improvement:
Action plan template

Program improvement goal:

Action step	Timeframe	Person responsible
1.		
2.		
3.		
4.		
5.		
6.		

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