Measuring and Monitoring Fidelity:

Tools and Experiences from Multiple Replications

Brian K. Bumbarger Prevention Research Center, PSU

> Blueprints Conference March 2008

So you've implemented an evidence-based program?

- Did it work?To what extent? For whom?
- WHY was it ineffective, or not as effective as you would have liked?

We've come a long way, baby!

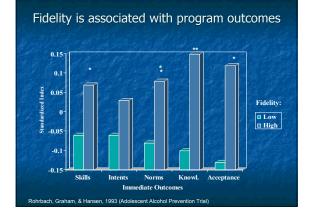
- Growth in the number of empirically validated programs
- Funders and policy-makers are advocating for greater use of EVPs
- Practitioners are being sold on the effectiveness of these "model" programs
- Research and State- and Federal Initiatives are supporting large-scale replications

...and miles to go before I sleep

- EVPs still represent the minority of prevention programs
- Research has shown that many (most?) aren't being implemented with fidelity
- There is tension between advocates of strict fidelity and those who encourage local adaptation
- Very few programs measure or monitor implementation fidelity and quality

Why does fidelity matter?

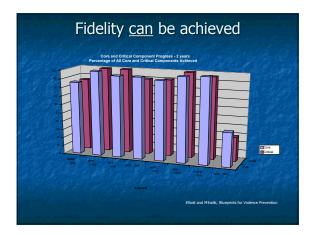
- The basis on which these programs were determined to be effective
- Research has clearly linked fidelity with positive outcomes
 - Higher fidelity is associated with better outcomes across a wide range of programs and practices (PATHS, MST, FFT, TND, LST and others)
- Fidelity enables us to attribute outcomes to the intervention, and provides information about program feasibility





Is adaptation inevitable/necessary?

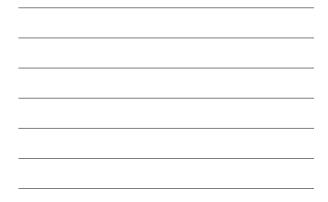
- Research shows that a high degree of fidelity is attainable (Project TND, PROSPER, Blueprints)
- There is little empirical support for cultural adaptation of EVPs
 - Most have shown similar effects across gender, ethnicity/race, SES
 - Few studies of prospective cultural adaptations have yielded positive outcomes

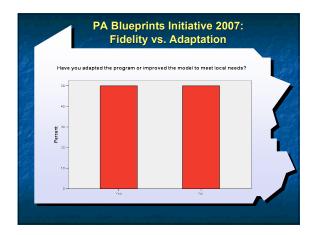


Adaptation happens...

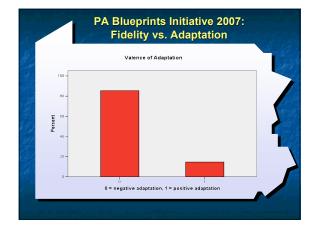
- Between 23% and 81% of program activities may be omitted during implementation. (Durlak, 1998)
- Only 19% of schools implement research-based curricula with fidelity. (Hallfors & Godette, 2002)
- Only about 75% of the students received 60% or more of the Life Skills Training Program. (Botvin, et al., 1995)

Standardized Mean Fidelity Score by Implementer (Bumbarger & Miller, 2007)					
Implementer	Mean Fidelity	N	Std. Dev	Minimum	Maximum
Police Officer Only	62.47	29	18.27	27.5	94.7
Teacher Only	65.25	13	11.81	43.4	85.1
Team Taught	72.03	12	16.62	47.8	94.3











The reality....

- While possible, fidelity is not a naturally occurring phenomenon – adaptation (more accurately program drift) is the default
- Most adaptation is reactive rather than proactive
- Most adaptation weakens rather than strengthens the likelihood of positive outcomes

Why does adaptation occur?

- Unforeseen barriers (time, resources, access to the population)
- Inadequate training or understanding of the program's underlying theory
- Implementers lack necessary skills
- Lack of perceived efficacy/relevance/acceptance
- Programs that aren't "user friendly"
- Lack of Administrator support
- Dysfunctional/unsupportive context
- Inertia

Components of fidelity

- Content
- Dosage
- Method of delivery (including "who")
- Context
- Participant Engagement (including
- recruitment/retention)
- others?...

Improving fidelity locally

- Good pre-implementation planning
- Improve practitioner knowledge of prevention science (etiology and theories of change)
- Build a sustainable infrastructure for monitoring implementation fidelity and quality
- Build internal capacity AND desire
- What gets measured matters

Tools for monitoring implementation

- Many programs now have standard implementation monitoring tools
 - Can be adapted for local needs
 - New instruments can easily be created with a knowledge of the intervention
 - Instruments should be practical and brief
 Some sources are more reliable than others
- Implementer self-reports are easiest, but least reliable
- Third party or peer observations are more reliable
- Videotaped observations offer many advantages
- Multiple informants are best

Building a sustainable infrastructure

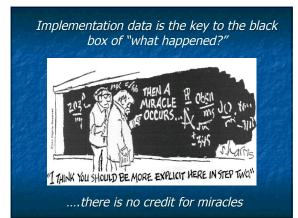
- Fidelity is susceptible to many variables and thus is fluid over time it must be monitored continually
 - Acknowledge the difference between adoption phase and implementation phase
- The tendency for adaptation does not significantly diminish over time there is no inoculation against drift
- Processes for monitoring fidelity and quality should be part of the program infrastructure TQM
- Training, Evaluation, Fidelity and Sustainability are inseparable they must be addressed and planned for comprehensively

Building internal capacity and motivation

- Approach fidelity from a practical, accountability perspective don't make it a data/research/compliance issue
- Quality implementation is rooted in the implementers beliefs about the efficacy of the program
- The goal is to develop local intrinsic motivation for monitoring fidelity and quality of program delivery-must be tied to outcomes through quality control
- Involve local practitioners/implementers in the development and conduct of evaluation
 - Process evaluation is fidelity monitoring

Practical strategies

- Peer coaching, peer observation
- Schedule regular opportunities for reflective practice and de-briefing
- Never let the initial training be the only training
- Data in must ALWAYS require data out create feedback loops and safe environments for reflection
- Foster internal competition when appropriate
- Emphasize the importance of a clear understanding of a program's logic model



Thank You!

Brian K. Bumbarger Prevention Research Center Penn State University

bkb10@psu.edu www.prevention.psu.edu