Systematic review of adaptations of public health evidence-based interventions

Escoffery C, Mullen PD, Lebow-Skelley E, Haardoerfer R, Boing E, Udelson H, Reece D, Wood R, Hartman M, Fernandez ME

Cam Escoffery, PhD, MPH, CHES

10th Annual Conference on the Science of Dissemination and Implementation

```
December 6, 2017
```

Program Adaptation

Changes to an efficacious program or its components to meet the needs of a new population and community while retaining fidelity to its core elements (Solomon, 2006)

Definitions:

- Changes: Modifications or alterations
- **Fit:** Reduce mismatches between original EBI to new population/needs/context, increase fit
- Fidelity: Implementing with program fidelity/; without diluting program's effectiveness; compromising/deleting program's core elements



A few mentioned planned vs. unplanned adaptations



Purpose of the Study

To assess adaptations of evidence-based, public health interventions in the published literature

Research questions:

- What are the reasons for and common types of adaptations being made to EBIs as reported in the literature?
- What steps are reported for making adaptations to EBIs?
- What individual, intervention and organizational outcomes are assessed in evaluations of adapted EBIs?

Methods

Studies identified through searches of PubMed, PsycINFO, PsycNET and CINAHL

Search concepts:

adaptation, evidence-based interventions and practice, health behavior, and quality of healthcare Inclusion criteria:

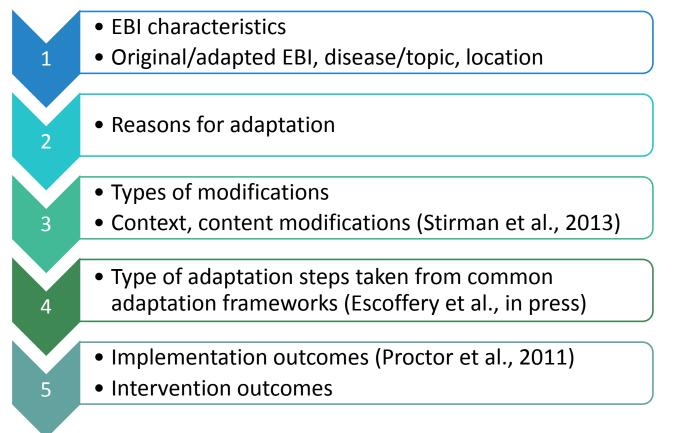
1) published in English,

2) published after 1995, and

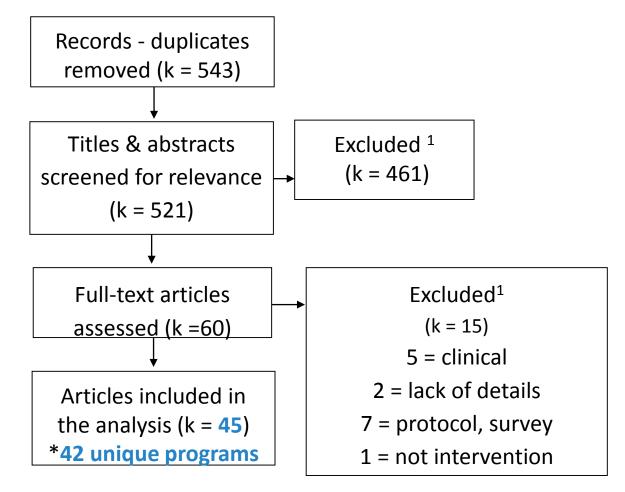
3) examined the adaptationprocess or outcomes of anadapted evidence-based,public health program/policy

Data Abstraction

Two researchers independently abstracted:



Flow Diagram of Reviewed Articles



¹not a primary study or description of an adaptation method/process of a public health EBI; escribed the adaptation of a measure/scale or was a background/review article

Results - Study Characteristics (n=42)

- Publication years 2003 2014
- Common disease topics = HIV/AIDS, mental health, substance abuse, and chronic illnesses
- Most (k=27) reported on U.S. adaptations

Results - Reasons for Adaptation

Common reasons:

- o new culture (k=27; 64.3%)
- new target population (k=25; 59.5%)
- new community setting (k=24; 57.1%)

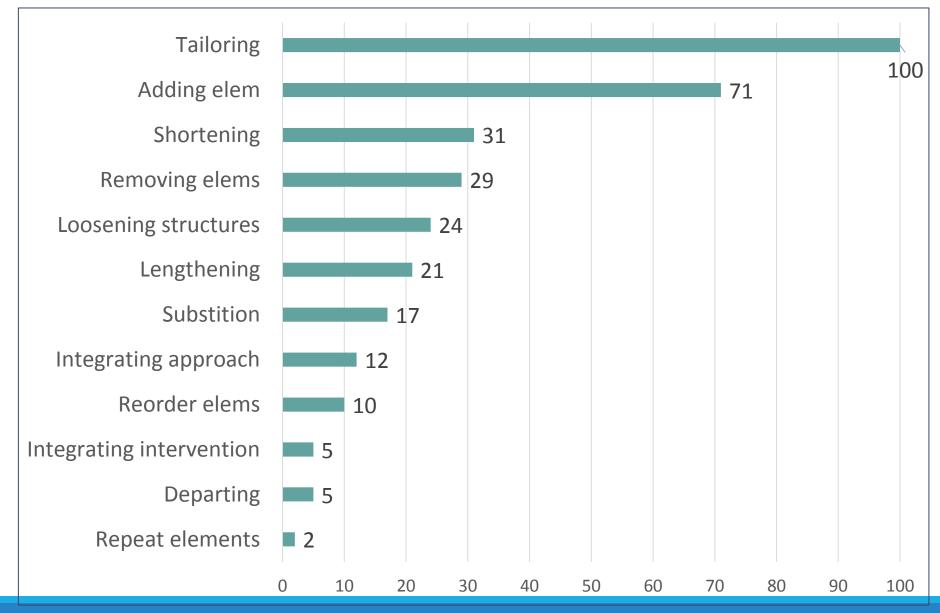
Less common reasons:

- improve ease of implementation
- improve accessibility
- condense the original intervention

Results - Adaptation Frameworks

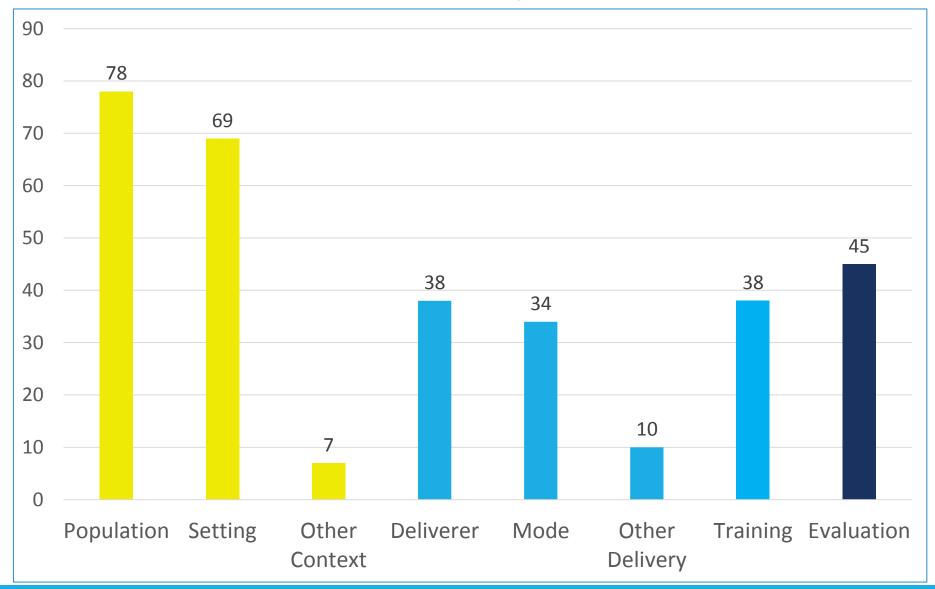
- 15 articles (36%) referenced a pre-existing framework
- Most commonly mentioned = Ecological Validity Model, Map of the Adaptation Process, and Cultural Adaptation Framework (2 studies each)
- Others mentioned at least once = Diffusion of Innovation, Replicating Effective Programs, CDC's Adaptation Traffic Light, ADAPT-ITT

Content Adaptations



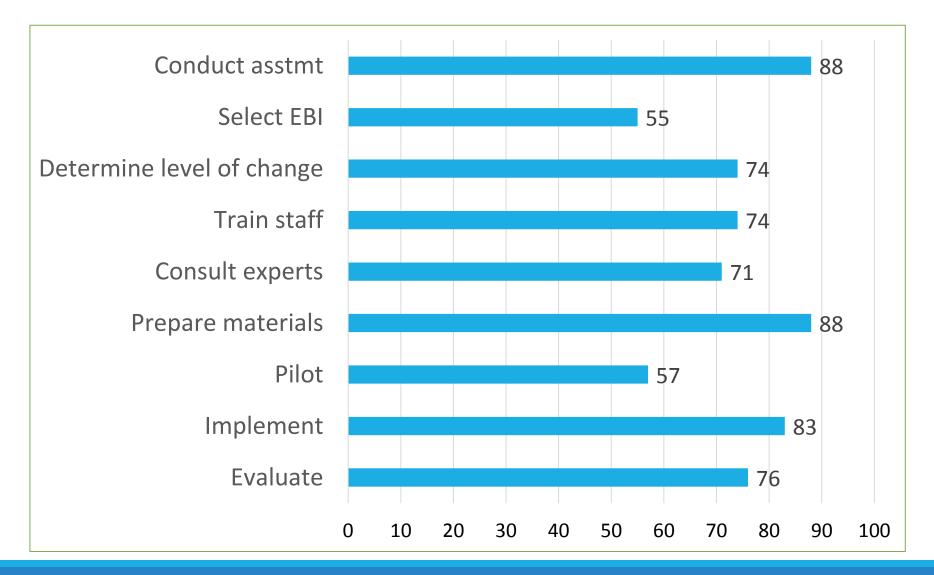
Stirman et al., 2013, Coding system for modifications and adaptations

Other Adaptations



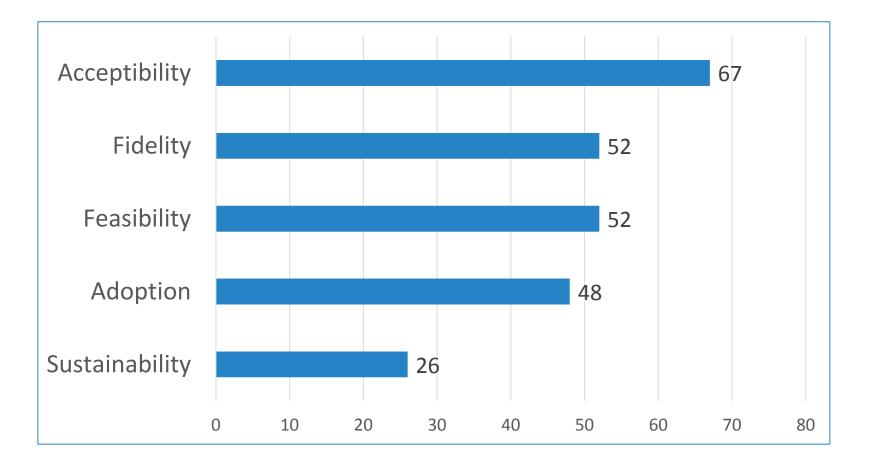
Stirman et al., 2013, Coding system for modifications and adaptations

Steps in Adaptation



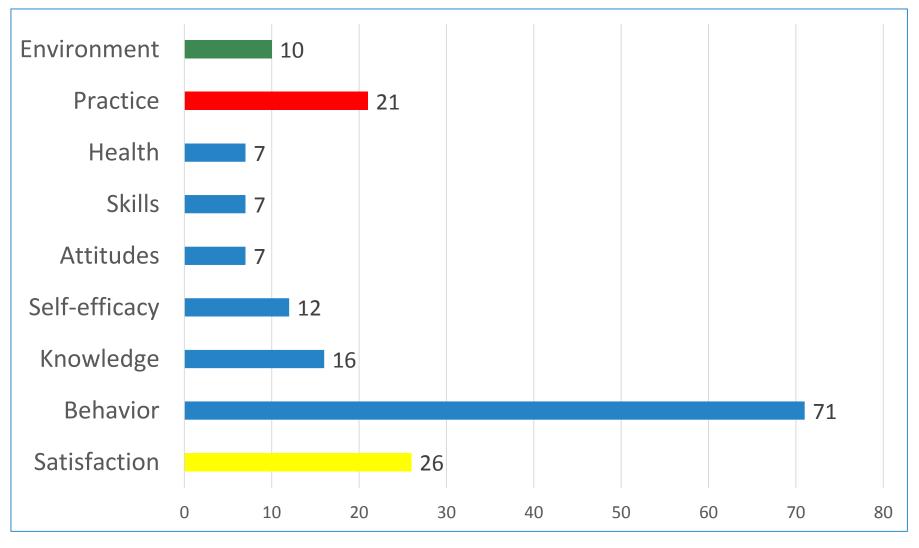
Escoffery et al., in press, A scopying study of adaptation frameworks

Implementation Outcomes



Proctor et al., 2011, Implementation Outcomes

Other Intervention Outcomes



Implications for D&I Research

- This study described adaptation of EBIs in the literature; more research is needed to better understand how adaptations are occurring
- Some practitioners are using adaptation frame-works; frameworks could be more widely disseminated to inform future adaptation efforts
- We found heterogeneity and gaps in reporting the reasons and process of adaptation
- Common taxonomies of adaptation elements are needed to inform reporting of adapted EBIs (types: Stirman et al., 2013; Moore et al., dimensions: fit/timing/valence)

Future Research

- Examine composites of program changes, reasons
- Evaluate adapted EBIs to determine whether these versions are as effective as the original or other adapted versions
- Determine key features or elements re: adaptation to record and standardize across studies
- Consider a clearinghouse for adapted programs to understand the issues around ecological validity of adapted EBIs - Chambers (2016) recommendation for an adaptome (catalog of adapted programs/their results to share with the field)

Questions



Cam Escoffery, PhD Emory University, Rollins School of Public Health <u>cescoff@emory.edu</u>

Acknowledgements:

Funding: R01CA163526, Increasing Reach and Implementation of Evidence Based Programs for Cancer Control (Mullen, Fernandez, M-PIs)

Training and Technical Assistance Workgroups: Cancer Prevention and Control Research Network, <u>http://cpcrn.org/</u>

part of Prevention Research Centers





References

Chambers DA, Norton WE. The adaptome: advancing the science of intervention adaptation. *Am J Prev Med* 2016;51(4):S124-31.

Escoffery C, Lebow-S, Udelson H, Boing E, Fernandez M, Wood R, Mullen PD. A scoping study of program adaptation frameworks for evidence-based interventions. *Behav Translational Med*, in press.

Moore JE, Bumbarger BK, Cooper BR. Examining adaptations of evidence-based programs in natural contexts. *J Primary Prev* 2013; 34(3);147–161.

Stirman SW, Miller CJ, Toder K, Calloway A. Development of a framework and coding system for modifications and adaptations of evidence-based interventions. *Implement Sci.* 2013;8(1):65.

Solomon J, Card JJ, Malow RM. Adapting efficacious interventions: Advancing translational research in HIV prevention. *Eval Health Prof* 2006;29(2):162-94.

Proctor *et al*. Outcomes for implementation research: conceptual distinctions, measurement challenges, and research agenda. *Adm Policy Ment Health*. 2011;38(2):65-76.