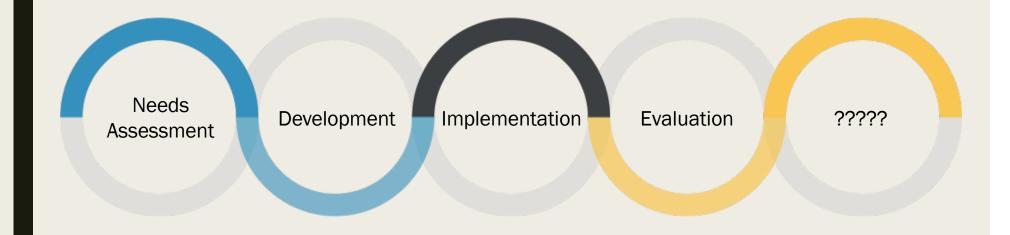
Seeing Things from a Different Angle: Adapting the Safety and Health Improvement Program (SHIP) for the US Forest Service

MacKenna Perry, PhD July 11, 2018 OHP Summer Institute

Caps for sale...

Life Cycle of an Intervention



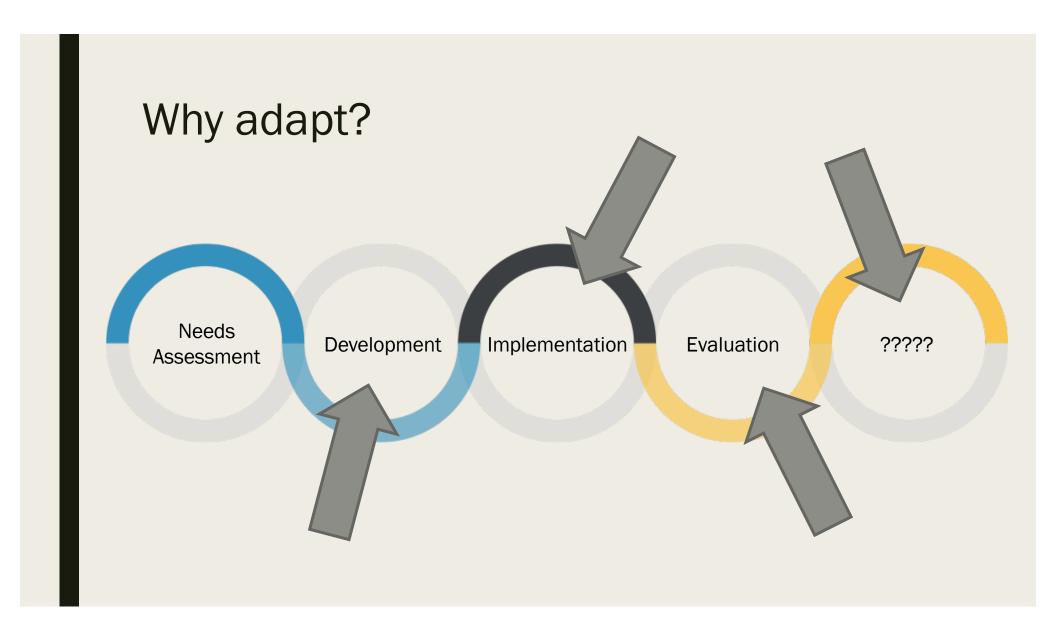
How to adapt?



Content



Design / Methodology

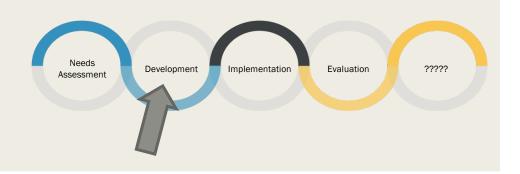


Development Phase

Options

- Can try something new (content, format, level of the organization, scale, etc.)
- Can use same format/framework but change content completely
- Can use someone else's training but shape it to meet your needs

- Saves time and money
- Already have clues it will work

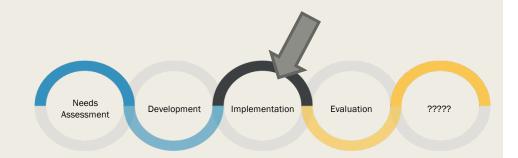


Implementation Phase

Options

- Can implement in the same way but with new content
- Can make changes to tailor for new context

- Saves time and money
- Improve upon past processes
- Keep up with technology

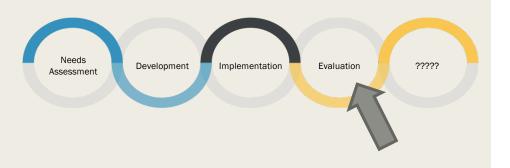


Evaluation Phase

Options

- Can use same evaluation but with new content
- Can make changes based on lessons learned

- Saves time and money
- Ability to ask new questions



"The End" Phase

Options

- Can always go back to the original version, without much lost
- Can keep going forward with new version
- Can keep adapting forever and ever!

- Makes the next adaptation even easier
- Build a library for different contexts
- Ability to compare versions



Activity: Five Minutes of Choose Your Own Adventure!

- 1. Walk over to someone you don't know, or, worst case, someone you don't work with every day
- 2. Introduce yourselves and what hats you wear/what your jobs are
- 3. Tell each other what intervention you picked and one idea for how to adapt it
- 4. Pick a (gentle) stretch to do together and give it a try!
- 5. Go sit back down at your seat

CASE STUDY

Adapting the Safety and Health Improvement Program (SHIP) for the US Forest Service

Safety and Health Improvement Program (SHIP)

Components

- One-hour computer-based supervisor training
- Two-week behavior tracking
- Facilitated team sessions
- Continued discussion



Safety and Health Improvement Program (SHIP)

Intervention Targets

- Stress and work-life conflict
- Health and safety practices
- Job performance and attitudes
- Team effectiveness



Safety and Health Improvement Program (SHIP)

Effectiveness

- Direct improvement of blood pressure (d = .19)
- Moderating effects of baseline leader-member exchange
- Lower LMX at baseline
 - Improved family supportive supervisor behaviors (d = .43)
 - Improved team effectiveness (d = .70)
 - Improved work-life effectiveness (d = .57)

(Hammer, Truxillo, Bodner, Rineer, Pytlovany, & Richman, 2015; Hammer, Truxillo, Bodner, Pytlovany, Richman, & Rineer, in prep)

Themes from USFS Pilot Studies

Work-family interface

 High levels of work-family stress—especially fire personnel

Supervisor support & work stress

- More supervisor support and communication needed—especially field workers (often lone workers)
- More support needed from top management and the agency
- Supervisors doing their best, but struggling with own workloads



Themes from USFS Pilot Studies

Health & safety

- Work overload—especially non-fire personnel
- Productivity prioritized over safety especially non-fire personnel
- Concerns about conflict with the public and exposure to gunshots
- Many workers experience some form of musculoskeletal pain or discomfort



Themes from USFS Pilot Studies



Organization-level constraints

- Conflicting job demands
- Rules and procedures
- Lack of information
- Role ambiguity

Intervention Adaptation

Safety and Health Improvement Program (SHIP)

Adaptation for USFS Needs

Supervisor Training and Team Education Program (STTEP)

Advantages of starting from SHIP:

Content

- SHIP designed to help supervisors be more effective in support they give
- SHIP explicitly focuses on improving safety, health, and work-family outcomes

Design

 Computer-based training fit with variety of USFS supervisor locations

Changes made to adapt to USFS context:

Content

- Added a role clarity support module
- Updated examples and pictures to be specific to USFS workers
- Consolidated some content to reduce amount of text

Design

- Removed team effectiveness component to increase scalability and fit time constraints
- Updated behavior tracking format to meet field and data collection needs

Training Design

Computer-based training

- One hour
- Online
- Self-guided
- Embedded quiz questions

Behavior tracking

- Practice performing the behaviors learned
- Week 1: set goals, count number of behaviors
- Week 2: reflect, set new goals, count number of behaviors

Training Content

Family & Personal Support Behaviors, such as:

- Asking for input about how work can be organized to benefit both company and family or personal priorities
- Expressing empathy, understanding, or offering help when an employee shares a family or personal challenge

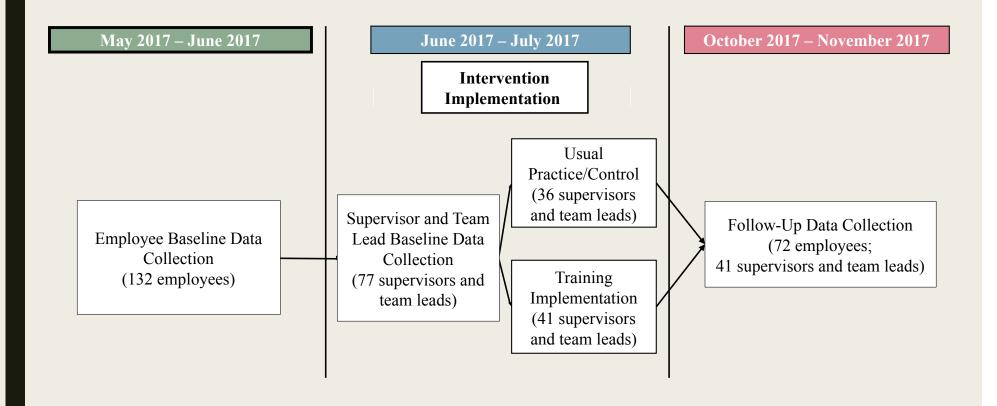
Safety Support Behaviors, such as:

- Discussing the importance of safety over productivity and encouraging an open dialogue about safety
- Pointing out and recognizing when an employee is behaving safely

Role Clarity Support Behaviors, such as:

- Providing resources or help to assist employees with managing day-to-day tasks/responsibilities and understanding expectations
- Demonstrating how to clearly understand your job role, tasks, and responsibilities and set goals or objectives

Data Collection



Data Collection

Surveys

- Online first through USFS leadership distribution
- Attend forest-wide onboarding meetings to collect more participants in person
- Follow-up online

Intervention

- Supervisor survey (voluntary) before training
- Computer-based training online through cTRAIN
- Behavior-tracking exercise on paper within biweekly online check-in surveys

Results

Beneficial

- Lower employee psychological distress (b = -.21, p < .05)
- Less employee worry about forest safety encounters (b = -.41, p < .05)
- And some that approached significance (actual forest safety encounters, life satisfaction, and org-level safety climate)

Detrimental

- Higher employee pain or discomfort in the neck or shoulders (b = .18, p < .05)
- Higher supervisor workfamily conflict (b = .40, p < .05)
- Lower supervisor
 organizational commitment
 (b = -.37, p < .01)

SHIP to STTEP

Advantages of adaptation:

- + Saved resources
- + Allowed for further testing of existing intervention
- + Pre-existing evidence to suggest the intervention would benefit
- + Aided in dissemination of existing intervention

Disadvantages of adaptation:

- Content area did not fit perfectly
- Effects were very different
- Implementation changed quite drastically across settings
- Was it still "evidence-based"?

ISSUES IN ADAPTATION

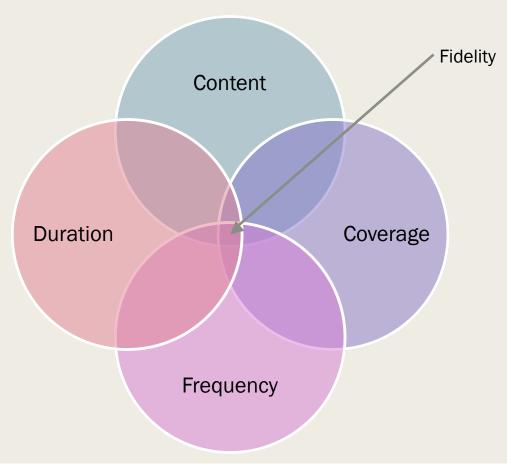
Evidence-Based vs. Evidence-Informed

"While excluding entirely baseless interventions or interventions rooted in prejudice and superstition, evidence-informed practice (EIP) should be understood as leaving ample room for the constructive and imaginative judgement and knowledge of practitioners and clients who must be in constant interaction and dialogue with one another for most interventions to succeed"

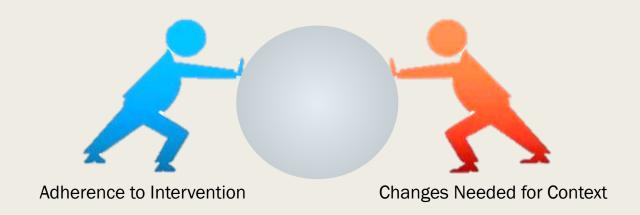
-- Nevo & Slonim-Nevo, p. 1178

Implementation Fidelity

Carroll et al. (2007)



Fidelity-Adaptation Dilemma



Castro & Yasui (2017); von Thiele Schwarz, Hasson, & Lindfors (2015)

Other Issues

Adapting at all levels of the workplace

Organizational, unit, and individual levels

Finding an intervention to adapt

- Scientific literature
- NIOSH Total Worker Health® Centers of Excellence
- Your own organization

When to start from scratch? Consider...

- Resources (e.g., time, money, personnel, content expertise)
- What else is already out there
- Licensing and intellectual property



Thank you!

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