Dissemination of Evidence-based Programs : A Low-cost Model for Improving Implementation Quality

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Background

- Correlation between implementation fidelity/quality and positive outcomes
- High quality implementation less common in natural settings
- Monitoring of implementation quality and fidelity is uncommon outside the research context
- Great variability across implementers
- Limitations of the traditional training and TA paradigm in large-scale diffusion

Study Purpose

- Develop and test the efficacy of a low-cost, low-intensity model for providing implementation support
  - Must require little effort and investment on the part of implementers
  - Must not result in significant additional cost to implement the program

- Hypothesis: Teachers who participate in the intervention will have higher mean levels of implementation quality and fidelity, and less variability across implementers

Intervention

- Weekly 20-minute facilitated group discussion via web-based video conference
  - Facilitator was a research assistant with a knowledge of the curriculum and basic tenets of prevention science
  - Review last lesson, then focus on upcoming week's lesson(s)
  - Goals, key points & activities
  - Where does the lesson fit in the logic model?
  - Suggestions for interactive teaching and problem solving
- Lesson-specific podcasts accessed individually
  - 2-3 minute audio review accompanied by 2-3 slides

Study Design

- 19 classroom teachers from 6 schools in one Pennsylvania county
- Random assignment
- Joint pre-implementation training
- Implemented with ~3,000 students during one school year
- Baseline assessment, teacher self reports, videotaped observations, student pre- and post-surveys

Post-training Baseline Assessment

- No statistically significant baseline differences between groups
  - Demographics/personal characteristics
  - Experience (general teaching and prevention)
  - Prevention knowledge
  - Perceptions re prevalence of adolescent ATOD use
  - Motivation/support for implementing LST
  - Perceived efficacy

Teacher Reports of Implementation

Significant group differences favoring the intervention group on:

- Completion of the lesson
- Students' attitude toward the curriculum
- Students' sustained interest in the program materials and activities
- Students displaying appropriate/on-task classroom behavior
- Students' willingness to discuss and process the lesson

Coded Observations

- Videotaped observation of every lesson in both conditions
- ~ 140 videotaped lessons blind coded by nationally certified LST trainers
- 16 items measuring of fidelity/adherence, quality of delivery, and participant responsiveness

Coded Observation Findings

- 11 of 16 measures significantly favored the intervention group
  - Percent fidelity/adherence to content (I=76, C=65)
  - Teacher's positive attitude toward the curriculum
  - Teacher maintains order in the classroom
  - Teacher has class deal with questions
  - Students were engaged and participated in discussion
  - Teacher asked open-ended questions
  - Teacher used encouragement & positive reinforcement
  - Teacher encouraged involvement and participation
  - Teacher stimulated active discussion among students
  - Global rating of teacher's overall delivery of the lesson
- No measures favored the comparison group even at a trend level

Barriers & Limitations

- Limited generalizability
- No clear dose-response relationship across implementers
- No intervention x condition effect at the student level
- Issues related matching implementation schedules across schools
  - Asynchronous model may be a better fit

Discussion

- This study supports the hypothesis that inexpensive, low-intensity interventions can be effective at improving implementation quality
- Reinforces the assumption that the traditional training/TA/coaching paradigm can be re-conceptualized and improved
- Provides a potential model for planning the scaling-up of interventions