ABSTRACT SUBMISSION AIC 2016: #99

1. Title:

Necessary and sufficient conditions for effective program implementation

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3. Key words:

Multi-site community-based intervention; families with young adolescents; substance abuse prevention; qualitative comparative analysis

4. Abstract text:

a. Background and aims

In translation of programs from research to practice, we emphasize fidelity to core components but often cannot identify what is "core" to causality in complex, multidetermined outcomes. The aim of the present study was to determine which components or combinations of components at the organizational, program, and participant levels produced desired outcomes. In particular, we examined which components are necessary (without these factors present, the outcome will never occur), and which are sufficient (with these factors present, the outcome will always occur).

b. Methods

The Strengthening Families Program for Parents and Youth 10-14 is a popular family intervention shown to prevent teen substance use. We will present data from over 560 instances of SFP delivered in community settings. Evaluations include data on organizational context (e.g. frequency of program offerings, rural vs. urban location), implementation factors (e.g. fidelity of delivery, program size, practitioner experience), and participant attributes (e.g. marital status, ethnicity, engagement, dosage).

The basic premise of QCA is that different sets of causal conditions may lead to a single outcome (the principle of equifinality). We will use qualitative comparative analysis (QCA), a hybrid qualitative-quantitative approach based in Boolean logic, to identify sets of conditions (i.e, organizational context, implementation factors, participant attributes) necessary (X) or sufficient (A, B, or C&D) to produce outcomes (Figure 1).

c. Conclusion

Translation and scale-up of evidence-based programs require new methods to guide implementation decisions across varying contexts. QCA, not previously used in prevention research, enables concrete, evidence-based implementation decisions that facilitate generalization and scale-up.

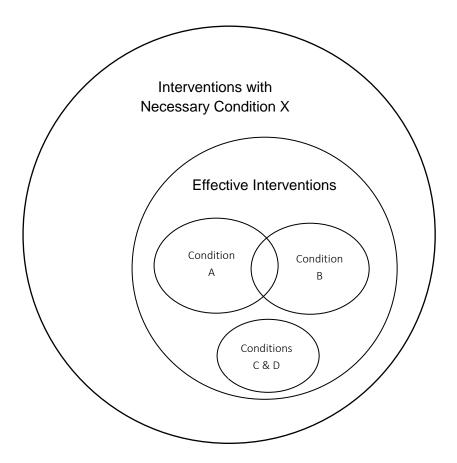


Figure 1. The superset of interventions with Condition X (which is necessary to produce an outcome) contains the subset of effective interventions, in which Condition A, Condition B, or the combination of conditions C and D are all sufficient to produce an outcome (adapted from Kane et al., 2014).