Food, Health & Choices (FHC): A Comprehensive Approach to Process Evaluation (CAPE) for Childhood Obesity Prevention Trials

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Abstract

Objective: Meta-analysis of childhood obesity prevention randomized controlled trials (RCTs) indicate promising but inconsistent effects and enormous variability in implementation. Researchers have called for efforts to report on RCT implementation through process evaluations that "inside the black box," and identify potential influences on RCT outcomes. This project describes the development of a comprehensive framework for the FHC process evaluation.

Background: Childhood obesity is an important societal problem for reasons of justice, economy, and well-being, therefore significant resources are expended on childhood obesity prevention interventions. We need strong evidence to ensure that we use those resources efficiently and effectively. While RCTs are focused on internal validity, process evaluations can be focused on more generative evaluation questions. Process evaluations can be a powerful compliment to an RCT if they employ meaningful, multidisciplinary frameworks for process evaluation.

Methods: Search for school-based childhood obesity prevention process evaluations published 2000-2014 were conducted in PubMed, Web of Science, and Google Scholar. In addition to searching for "process evaluation," all school-based childhood obesity prevention interventions were screened by name and principal investigator(s) to find process evaluations and other ancillary studies that had similar aims to process evaluations. Included articles were published in English in peer-reviewed journals.

Results: From this search, 17 process evaluations that met all criteria were included. This Framework follows a comprehensive approach to the implementation and outcomes of childhood obesity prevention interventions. Central to the framework are the dimensions of theory (control and change), implementation fidelity, delivery, reception, and outcomes. These dimensions are interrelated, and should be considered as a system. The framework is designed to be flexible and extensible, allowing for the application to different types of interventions.

Conclusions: This framework is intended to provide a useful and rigorous compliment to RCTs of childhood obesity prevention interventions that we need strong evaluations to ensure that we use those resources efficiently and effectively. While RCTs are focused on internal validity, process evaluations can be focused on more generative evaluation questions. Process evaluations can be a powerful compliment to an RCT if they employ meaningful, multidisciplinary frameworks for process evaluation.

Applicability to Field

CAPE provides interventions as taking place in three phases, similar to a logic model. Development (input), Implementation (activities), and Outcome. Each aspect of the intervention builds on the next. Development consists of both intervention design and facilitation/school staff training. Implementation is divided into two distinct parts: 1) facilitator-oriented delivery, which is sometimes called dose delivered, and 2) delivery, which is receipt, which is sometimes called dose received. Through this process, the framework is applied to the different factors that make up the intervention, including the people and structures in place in the venue where the intervention is delivered. The framework is designed to be flexible and extensible, allowing for the application to different types of interventions.