

Using the Multiphase Optimization Strategy (MOST) for Developing, Optimizing, and Evaluating Multicomponent Interventions

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Learning Objectives:

- Describe the ways in which the MOST framework differs from the traditional intervention development and evaluation process
- Explain why MOST is a good approach for pragmatic research (ensuring fit to context)
- Describe the three phases of MOST
- Understand how to identify and select experimental designs to be used in the Optimization phase of MOST (e.g., factorial designs, SMART)
- Identify relevant examples for application of MOST across the health research spectrum

Key Points:

- The randomized controlled trial is the gold standard for determining the effectiveness of an intervention, but leaves important questions unanswered about intervention mechanics or steps forward
- The Multiphase Optimization Strategy (MOST) is a framework for developing multicomponent behavioral or biobehavioral interventions that subjects the intervention to the process of optimization whereby the most effective intervention is identified within key constraints.
- The experimental design used in this process of optimization is dictated by your research question, type of intervention, and the resource management principle

Thought Questions:

- What unanswered questions do you have about an intervention you have previously developed or is prominent in your field of study?
- What are the components of that intervention? What are the constraints to implementation?

References:

1. Guastafarro, K., & Collins, L. M. (2019). Achieving the goals of translational science in public health intervention research: The multiphase optimization strategy (MOST). *American Journal of Public Health*, 109(S2), S128–S129.
2. Collins, L. M. (2018). Optimization of behavioral, biobehavioral, and biomedical interventions: The multiphase optimization strategy (MOST). New York: Springer.

Notes:



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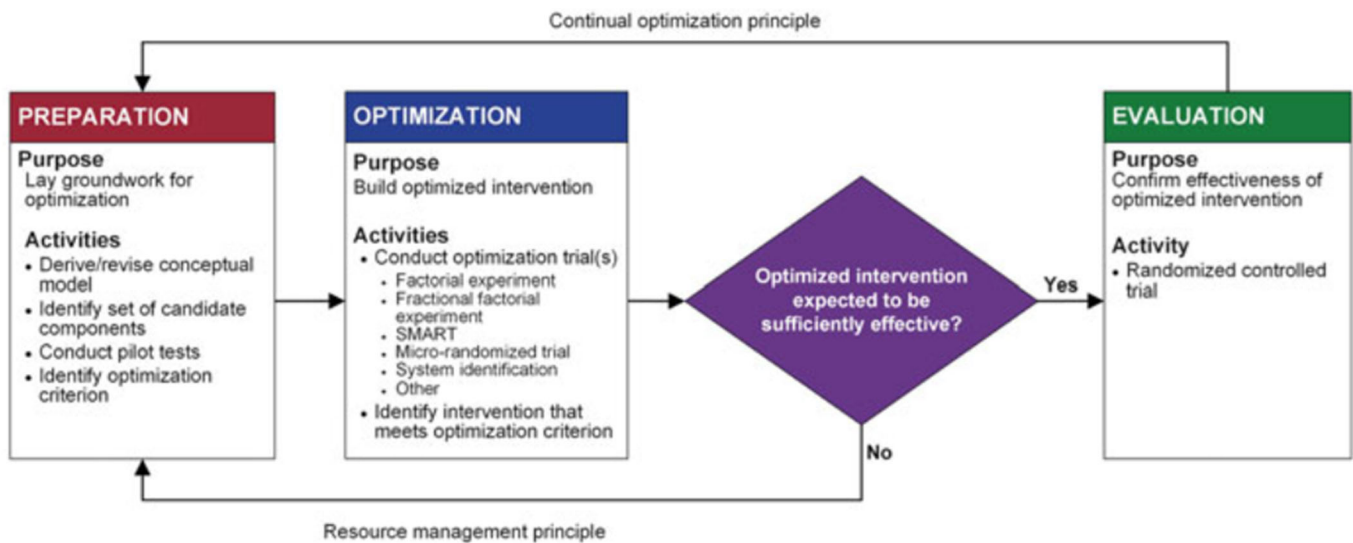
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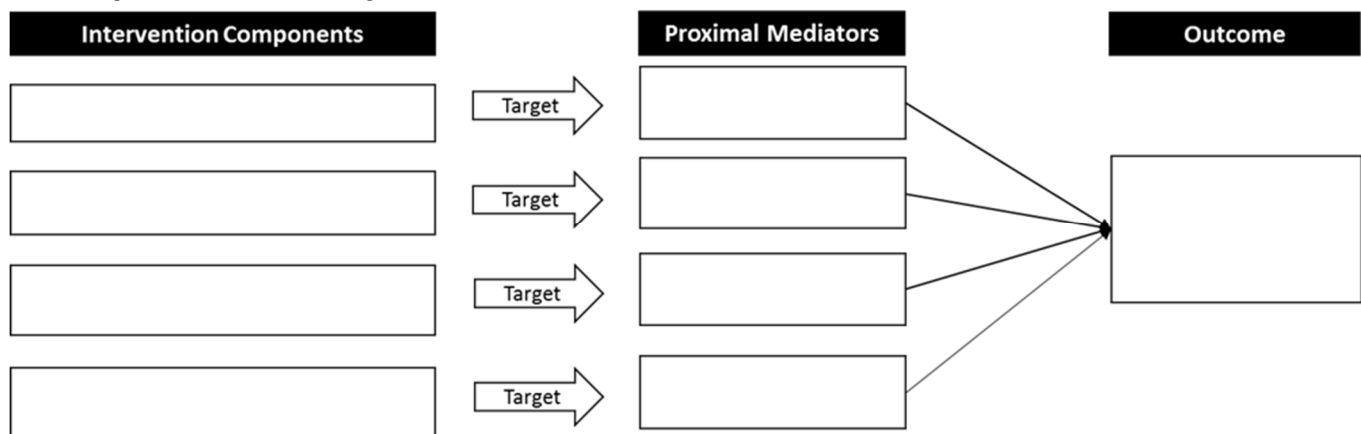


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Conceptual Model Template:



References:

1. Collins LM. *Optimization of Behavioral, Biobehavioral, and Biomedical Interventions: The Multiphase Optimization Strategy (MOST)*. New York: Springer; 2018.
2. Collins LM, Kugler KC, eds. *Optimization of Multicomponent Behavioral, Biobehavioral, and Biomedical Interventions: Advanced Topics*. New York, NY: Springer; 2018.
3. Guastaferrero K, Collins LM. Achieving the goals of translational science in public health intervention research: The multiphase optimization strategy (MOST). *Am J Public Health*.



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