

HOW TO APPLY THE MULTIPHASE OPTIMIZATION STRATEGY (MOST) IN YOUR INTERVENTION DEVELOPMENT RESEARCH

Module 1

MOST is a different way of thinking

**Lesson 3: What knowledge can and cannot be
obtained from an RCT**



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**SCHOOL OF GLOBAL
PUBLIC HEALTH**

Intervention Optimization Initiative

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In previous lessons you learned how to:

- Define key concepts
 - MOST
 - Intervention
 - Intervention component
 - RCT
 - Classical treatment package approach

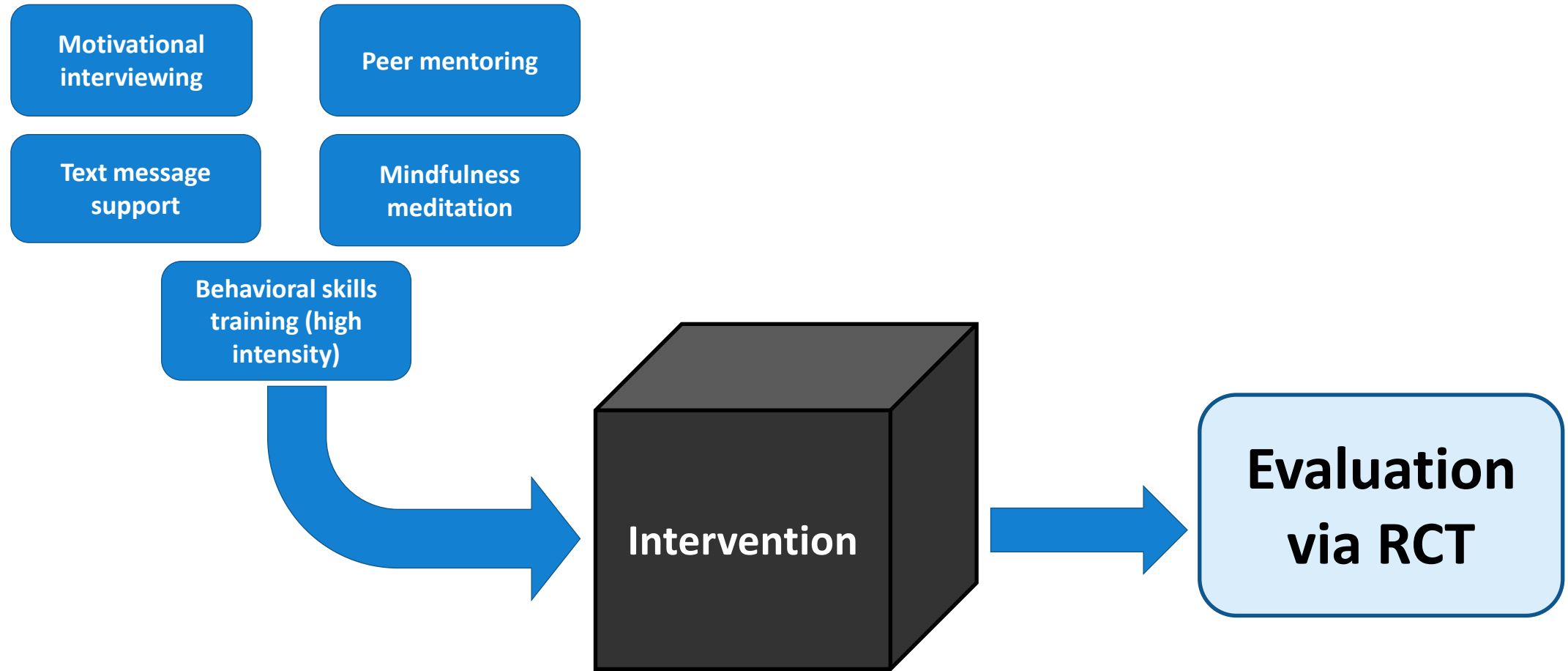
In this lesson you will learn how to:

- Assess what knowledge the classical treatment package approach can and cannot provide
- We will do this by contrasting two approaches to intervention development:
 - The classical treatment package approach
 - How an engineer might go about developing an intervention

Scenario 1: Developing an intervention aimed at reducing viral load among HIV+ individuals who drink heavily

- Motivational interviewing (no [not included], yes [included])
- Peer mentoring (no, yes)
- Text message support (no, yes)
- Mindfulness meditation (no, yes)
- Behavioral skills training (low intensity, high intensity)

Classical treatment package approach



- What is wrong with evaluating a multicomponent intervention via an RCT?
- Absolutely nothing!

What can be learned from a well-conducted RCT

- Whether a treatment package is clinically and statistically better than a suitable control treatment

What cannot be learned from an RCT

An RCT that finds a significant effect WILL NOT reveal

- Which components are making positive contributions to overall effect
- Whether the inclusion of one component has an impact on the effect of another

What cannot be learned from an RCT

An RCT that finds a significant effect WILL NOT reveal

- Whether a component's contribution justifies its cost
- How to make the intervention more effective, affordable, scalable, and efficient

What cannot be learned from an RCT

An RCT that finds a non-significant effect WILL NOT reveal

- Whether any components are worth retaining
- Whether one component had a negative effect that offset the positive effect of others
- Specifically what went wrong and how to do it better the next time

In this lesson you learned how to:

- Assess what knowledge the classical treatment package approach can and cannot provide

In the next lesson you will learn how to:

- Contrast two approaches to intervention development:
 - The classical treatment package approach
 - How an engineer might go about developing an intervention



In the next lesson you will also learn how to:

- Define additional key concepts
 - Constraint
 - Optimization
 - Candidate component