

Monologue for Chapter 3.3 Designing a research intervention for Health EDRM

Hello, my name is Chi Shing Wong, and I am the centre manager for the Collaborating Centre for Oxford University and Chinese University of Hong Kong for Disaster and Medical Humanitarian Response. In this podcast, I will outline key content from chapter 3.3 in *The WHO Guidance on Research Methods for Health Emergency and Disaster Risk Management*, which covers the design of interventions for Health EDRM, and was written by my colleagues Carol Wong and Emily Chan.

Research interventions have long been used for assessing, improving, maintaining, promoting and modifying health conditions and well-being. While interventions are commonly used for relief response during and after the onset of disasters, Health EDRM emphasises the significance of intervention engagement throughout the disaster management cycle. When research interventions are adopted to prevent and mitigate health risks before disasters, they empower communities and enhance national capacities to provide timely and effective response and recovery. This chapter introduces various health intervention theories and models, and provides a framework for intervention development. It is intended as a guide for practitioners and policymakers who are designing and researching Health EDRM interventions.

The chapter stresses the importance of needs and resource assessments when designing interventions. Such assessments can shape the researcher's understanding of the target populations, the risks they face and the resources available. The chapter also aims to raise awareness of specific behaviours and environmental settings that may require changes at individual, interpersonal and community levels. Generally, behaviour change interventions are implemented in response to identified behaviours that are associated with or causally linked to increased mortality and morbidity. The complexity of human behaviours means that intervention strategies need to be developed that can alter an individual's attitudes and motivation and lead to changes in health-related behaviours, and this is one of the main areas covered in the chapter.

The chapter discusses five models or theories for intervention development. These are the health belief model, the theories of reasoned action, the transtheoretical or stages of change model, the social cognitive theory and the settings approach.

In theory, interventions constructed under the health belief model aim to change health behaviours but limitations in its efficacy, effectiveness and impact have suggested a need for integration with alternative models so that the interventions better consider the environmental context.

The theories of reasoned action do not suggest methods for changing health-related behaviour but play a significant role in understanding health risk behaviours among people who are aware of the negative outcomes associated with behaviour.

The transtheoretical model considers the process of change that can be perceived in various stages whereby each stage requires an individual specific intervention for change. The

model focuses on the decision-making of individuals and the need to develop long-term interventions for longer lasting impacts.

The social cognitive theory is an interpersonal theory, which would lead to interventions based on active learning. It proposes that reciprocal interaction of the person, environment and behaviour will promote learning.

Lastly, the setting approach is a framework for developing intervention-based initiatives. It enhances the effectiveness of interventions by emphasizing that coordinated and integrated health promotion activities bring powerful changes to a community when implemented with multiple stakeholders and across multiple settings.

In conclusion, no single method dominates intervention development and research, but the methods discussed in this chapter could be applied in combination and consideration should be given to feasibility, efficacy and costs when choosing amongst them. As the models and theories suggest, a multiple-interventions approach that targets different stakeholders, such as the general public, patients, practitioners, regulators and decision-makers, might generate more effective interventions. As a result, the multi-theories approach should always be considered when designing or tailoring interventions.

Thank you very much for listening.