

Lecture Transcript

Module Name	Mental Health in the Community		
Week 5	Implementation in Health Care		
Topic	Implementation Outcomes (Part 3 of 4)		
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For the rest of this session, I'm going to focus on quantitative implementation outcome instruments, such as surveys and questionnaires.

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So why is it important to validate implementation outcome instruments? Well, there's currently a lack of consensus on which instruments should be used for measuring the same outcome. This causes inconsistencies in the outcomes reported and difficulties in comparing these outcomes in systematic reviews and meta-analyses. There is variability in the quality in terms of reliability and validity of instruments, and it's not clear if the best instrument is being used for a given outcome. This prevents the development of the evidence base on effective implementation strategies.

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This slide serves as a reminder of the concepts of reliability and validity. So in this example, the three targets represent three different questionnaires about acceptability. The crosses on the target represent each time the tester has completed the questionnaire. The tester has completed each questionnaire six different times. The questionnaire is reliable if it measures the same thing consistently.

In other words, the tester hits the same point on the target every time. The questionnaires 2 and 3 are reliable measures and questionnaire 1 is not reliable, but a questionnaire also needs to be valid as well as reliable. In other words, it needs to measure what it is intended to measure. So questionnaire 2 is reliable, but it is not valid. If it were a measure of acceptability, it would not be accurately measuring this implementation outcome, whereas questionnaire 3 consistently measures what it is supposed to measure, so it is reliable and valid. So just to summarise this slide, a measure has to be reliable before it can be valid, but reliability does not infer validity.

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There are several types of reliability and validity, but should be assessed when validating implementation outcome instruments such as test-retest reliability, internal consistency, content, criterion, and construct validity. As mentioned in the previous slide, a measure has to be reliable before it can be valid. However, researchers evaluating implementation outcome instruments are more likely to assess validity than they are reliability. This diagram also includes responsiveness. This is the ability of a measure to detect change in an individual over time. Researchers are even less likely to assess the responsiveness of their instruments. So these are some of the important limitations of the literature in this field.

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Systematic reviews have identified implementation outcome instruments that have been validated in physical and mental health settings. There are two reviews in mental health: the Mettert review updated the findings of the Lewis review. So the numbers of instruments identified in each of these reviews have been added together to give you a feel for the total number of instruments available.

The vast majority of these measures relate to a specific intervention, such as an instrument on the acceptability of digital alcohol screening and feedback. There are fewer generic measures that can be used across any intervention or setting. An example of a generic instrument is attitudes toward the adoption of evidence-based practice. Both reviews found uneven distributions of instruments across implementation outcomes, with most instruments identified as measuring acceptability. The number of studies that assess the measurement properties of implementation outcome instruments have increased over time. The assessment of implementation cost and penetration may be more suited to indicate your outcomes, rather than questionnaires, such as the proportion of individuals receiving an intervention. And both reviews found fewer studies from lower and middle-income countries which highlights the need for further cross-cultural validation studies.

Overall, the psychometric quality of instruments in both physical and mental health reviews was found to be low. The length of the instruments was also found to be fairly long, with very few instruments including less than 10 items or questions, which is an indicator of excellent usability. Researchers in this field recommend further psychometric research on existing instruments with promising evidence rather than developing new measures.

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In summary then, systematic reviews have assessed the psychometric properties of implementation outcome instruments in physical and mental health settings.

Selection of a suitable implementation outcome instrument should be based on their reliability, validity and their pragmatism.

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