

Using Concept Mapping for Measure Development: Examples from Sustainability

Sara Malone, LCSW^{1,2}; Kim Prewitt¹; John Lin, MD²; Douglas A Luke, PhD¹
¹Washington University Brown School, ²Washington University School of Medicine

BACKGROUND

The team is utilizing concept mapping in innovative ways to support a psychometric measurement development study. We've used concept mapping to develop two sustainability assessment instruments. We define sustainability as *the ability to maintain programming and its benefits over time* and focus on capacity building to improve sustainability.

Concept Mapping

Concept mapping is a mixed methods approach to reveal the structure of a complex conceptual domain. The tools allow for graphic representation of organized knowledge. Concept mapping produces a map of conceptual domains that can be used to structure a multidimensional assessment tool. Concept mapping can also be used to help refine individual items for use in the measurement scales. We use software (Concept Systems Global MAX) to aid in the process of concept mapping.

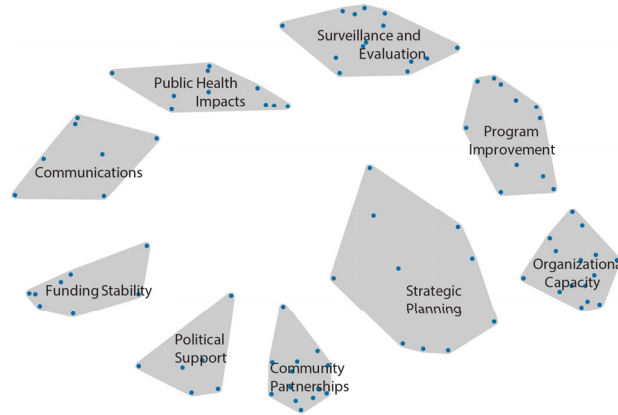
Steps of Development

- Literature Review
- Brainstorm
- Sorting
- Rating
- Analysis of Structure
- Cleaning/Creation of Measure
- Testing/Refinement

CONCEPT MAPPING & MEASURE DEVELOPMENT

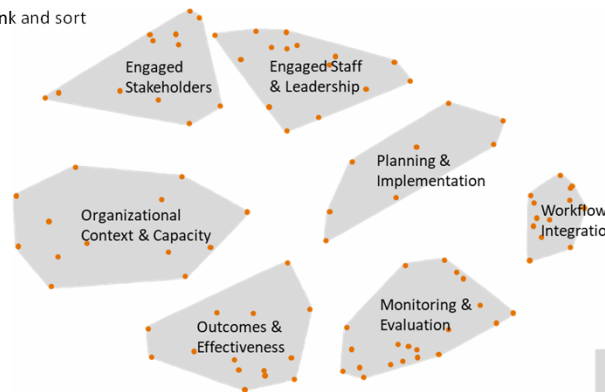
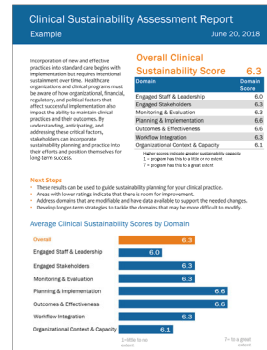
Program Sustainability Assessment Tool

- Experts: Researchers, Funders/Advisors, and Practitioners in different disciplines
- 34 individuals completed concept mapping
- 230 statements produced, duplicates eliminated for a total of 94 statements to rank and sort
- Final PSAT: 40 items in 8 domains



Clinical Sustainability Assessment Tool

- Experts: Researchers, Administrators, and Practitioners in clinical healthcare
- 50 individuals completed concept mapping
- After refinement, a total of 97 statements to rank and sort
- Draft CSAT: 49 items in 7 domains



FINDINGS, NEXT STEPS & RESEARCH IMPLICATIONS

PSAT and CSAT

- Both of these measures are useful contributions to the science of sustainability
- These instruments are short, easy to use, applicable to wide settings
- These measures are useful for practice as well as research that aims to advance our ability to measure sustainability
- Validated PSAT used over 5,700 times by programs around the world

Concept Mapping for Measure Development

- Concept mapping structures the measurement development process to facilitate psychometric best practices (e.g., encouraging focus on both item-level and domain-level characteristics)
- Concept mapping encourages expert input from diverse stakeholders; helps ensure instrument validity and usability
- Knowledge can be integrated and evidence based practice promoted through this methodology

Concept Mapping for Implementation Science

Using rigorous methods, such as concept mapping, allows for high quality measures to be developed. This positively affects the comprehension and practice of implementation in complex settings. This work advances our understanding of sustainability and creates lasting impact in a variety of public health and health care settings.

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