How do I know if I am successful?
Study designs, evaluation, measurement

Dissemination and Implementation Research Summit

April 25-26, 2018
Does this program/intervention/treatment work under optimal conditions?

When, where, how, with whom, under what circumstances, and why does this program/intervention/treatment work?

What methods/strategies are effective under what circumstances to disseminate and/or implement this program/intervention/treatment?
What question am I asking and in what context will it be answered?

What evidence do I need?

Qualitative

Mixed

Quantitative

Can I assign the exposure?

Yes

Random

Experimental

No

Observational

Can you follow people or collect data over time?

Yes, Longitudinal

Quasi-Experimental

No, Cross-sectional

From presentation by Doug Luke, MT-DIRC, Washington University in St. Louis, 2014
An Overview of Research and Evaluation Designs for Dissemination and Implementation


Hybrid Designs 1, 2, 3

Conceptual Model for Implementation Research

**What?**
- EBIs

**How?**
- Implementation Strategies
- Implementation Research Methods

**The Core of Implementation Science**

**Implementation Outcomes**
- Feasibility
- Fidelity

**Service Outcomes**
- Efficiency
- Costs
- Timelessness

**Patient Outcomes**
- Clinical/health status
- Symptoms
- Function
- Satisfaction

*IOM Standards of Care

Proctor et al 2009 Admin. & Pol. in Mental Health Services
Additional Resources

- **17 measures resources**
  - 12 static reviews
  - 5 web-based resources
  - 14 of 17 publically available
  - 10 focused on quantitative measures
  - 9 provided the actual measures
  - 6 included reliability and validity info
Instrument Review Project

The SIRC Instrument Review Project: A Systematic Review of Dissemination and Implementation Science Instruments

Video of Instrument Review Taskforce at SIRC 2011
Power Point Presentation from ABCT
SIRC IRP Update 2013 (video of full presentation coming soon).

Exciting advances have been made in the field of dissemination and implementation (D&I). However, much like the science-practice gap that motivates our field, a communication gap exists among stakeholders at the forefront of this work. Measurement issues have slowed the progression of the field of D&I given the laborious process of systematically developing psychometrically sound yet feasible and cost-effective ways to assess our efforts. The lag that occurs between initial development, implementation, and then publication delays the process further, resulting in instances in which independent research teams are devoting considerable resources to unnecessarily redundant work. As a consequence, progress toward the development of commonly used instruments has been very slow, limiting the extent to which researchers have access to and are able to

http://www.seattleimplementation.org/sirc-projects/sirc-instrument-project/
Advancing the application, quality and harmonization of implementation science measures

Borsika A Rabin, Peyton Purcell, Sana Naveed, Richard P Moser, Michelle D Henton, Enola K Proctor, Ross C Brownson and Russell E Glasgow

Abstract

Background: The field of implementation science (IS) encompasses a broad range of constructs and uses measures from a variety of disciplines. However, there has been little standardization of measures or agreement on definitions of constructs across different studies, fields, authors, or research groups.

Methods: We describe a collaborative, web-based activity using the United States National Cancer Institute's (NCI) Grid-Enabled Measures (GEM) portal that uses a wiki platform to focus discussion and engage the research community to enhance the quality and harmonization of measures for IS health-related research and practice. We present the history, process, and preliminary data from the GEM Dissemination & Implementation (D&I) Campaign on IS measurement.

Results: The GEM D&I Campaign has been ongoing for eight weeks as of this writing, and has used a combination of expert opinion and crowd-sourcing approaches. To date it has listed definitions for 45 constructs and summarized information on 120 measures. Usage of the website peaked at a rate of 124 views from 89 visitors on...
Mixed Method Designs in Implementation Research

Lawrence A. Palinkas · Gregory A. Aarons · Sarah Horwitz · Patricia Chamberlain · Michael Hurlburt · John Landsverk

Abstract   This paper describes the application of mixed method designs in implementation research in 22 mental health services research studies published in peer-reviewed journals over the last 5 years. Our analyses revealed 7 different structural arrangements of qualitative and quantitative methods, 5 different functions of mixed methods, and 3 different ways of linking quantitative and qualitative data together. Complexity of design was associated with number of aims or objectives, study context, and phase of implementation examined. The findings provide suggestions for the use of mixed method designs in implementation research.

Keywords   Methods · Implementation research · Mental health services

Despite the need for and existence of practices that effectively prevent or treat mental health problems in children and adolescents, such practices are rarely employed in child welfare systems (Usher and Wildfire 2003; Burns et al. 2004; Leslie et al. 2004). In fact, as much as 90% of public youth-service systems, including mental health, education, juvenile justice and child welfare, do not use evidence-based practices (Hoagwood and Olin 2002). Unfortunately, our understanding of the reasons for this apparent gap between science and practice is limited to a few empirical studies and conceptual models that may or may not be not empirically grounded (Aarons et al., this issue). In implementation research, mixed method designs have been increasingly been utilized to develop a science base for understanding and overcoming barriers to implementation. More recently, they have been used in the...
116: Qualitative Research in Implementation Science (the QUALRIS project): Strong Methods for Strong Implementation

**Background:** Qualitative methods are vitally important to and widely employed in implementation science (IS) in tandem with quantitative methods. However, inadequate attention has been given to the specific demands made of qualitative methods in the context of IS. Limited guidance is available in IS as to which rigorous qualitative approaches might be most productively used, for which research questions and settings. This threatens the scientific integrity and practical utility of IS as it develops. Accordingly the Qualitative Research in Implementation Science (QUALRIS) project was launched.

**Methods:** Since June 2015 nine leaders in IS, qualitative research, or both were convened by the National Cancer Institute’s Implementation Science Team to develop guidance for using qualitative methods in IS, and to recommend future efforts to improve rigor and utility. The QUALRIS group interacts via teleconference, email and as an NCI online learning community ([https://researchtoreality.cancer.gov](https://researchtoreality.cancer.gov)). Consulting best practices literature in qualitative methods, and members’ own extensive experience, the group determined focal areas to examine using an interactive consensus process and then drafted pertinent guidelines.

**Findings:** Group members agreed that IS presents qualitative methods with certain imperatives beyond those typically addressed in other health services research. Intrinsic change oriented, IS research must be rapid and sensitive to change in complex contexts and dynamic processes. Qualitative research provides insight into implementation strategies and how they affect practice and
15th Annual
Qualitative Research
Summer Intensive

July 23 - July 27, 2018
The Carolina Inn, Chapel Hill, NC
## D&I science characteristics & implications for study design

<table>
<thead>
<tr>
<th>Point #</th>
<th>Characteristic</th>
<th>Implication</th>
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<tbody>
<tr>
<td></td>
<td><strong>Systems Perspective</strong></td>
<td></td>
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<tr>
<td>1</td>
<td>Context is critical</td>
<td>Research should focus on and describe context</td>
</tr>
<tr>
<td>2</td>
<td>Multilevel complexity</td>
<td>Most problems, and interventions are multilevel and complex</td>
</tr>
<tr>
<td>3</td>
<td>Focus on systems characteristics</td>
<td>More emphasis needed on interrelationships among system elements and systems rules</td>
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<td></td>
<td><strong>Robust, Practical Goals</strong></td>
<td></td>
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<tr>
<td>4</td>
<td>Representatives and reach</td>
<td>Focus on reaching broader segments of population and those most in need</td>
</tr>
<tr>
<td>5</td>
<td>Generalizability</td>
<td>Study generalization (or lack of such) across settings, subgroups, staff, and conditions</td>
</tr>
<tr>
<td>6</td>
<td>Pragmatic and practical</td>
<td>Producing answers to specific questions relevant to stakeholders</td>
</tr>
<tr>
<td>7</td>
<td>Scalability and sustainability</td>
<td>From outset, greater focus on scale-up potential and likelihood of sustainability</td>
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<tr>
<td></td>
<td><strong>Research Methods to Enhance Relevance</strong></td>
<td></td>
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<tr>
<td>8</td>
<td>Rigorous</td>
<td>Identify and address plausible threats to validity in context of question. Greater focus on replication</td>
</tr>
<tr>
<td>9</td>
<td>Rapid</td>
<td>Approaches that produce faster answers</td>
</tr>
<tr>
<td>10</td>
<td>Adaptive</td>
<td>Best solutions usually evolve over time, as a result of informed hypotheses and mini-tests with feedback</td>
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<tr>
<td>11</td>
<td>Integration of methods; triangulation</td>
<td>For greater understanding, integrated Quantitative and Qualitative methods are often required</td>
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<tr>
<td>12</td>
<td>Relevance</td>
<td>Relevance to stakeholders should be top priority</td>
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<tr>
<td></td>
<td><strong>Flexibility</strong></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Multiplicity</td>
<td>Encourage and support diverse approaches with the above characteristics (all models are wrong)</td>
</tr>
<tr>
<td>14</td>
<td>Respect for diverse approaches; humility</td>
<td>Different perspectives, goals, methods and approaches are needed. Continuing the same existing approaches will produce the same unsatisfactory results</td>
</tr>
</tbody>
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Expert panelists

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Department of Psychiatry
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Dr. Russell Glasgow
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