Intervention fidelity measures in rehabilitation: A systematic review

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Background

- Fidelity in rehabilitation refers to faithfulness of an intervention to underlying therapeutic principles and clinical guidelines.¹
- Fidelity measures:
  - Are necessary for conclusions to be confidently drawn about the uniformity and efficacy of the intervention in research trials.²
  - Ensure stakeholders of consistency between the treatment provided in research trials and clinician-led interventions in the community
  - It is essential that valid and reliable rehabilitation fidelity measures be developed and utilized to ensure the consistent delivery of high-quality, evidence-based interventions in research trials and clinical practice.

Methods

Specific Aim:

- To evaluate the quality (reliability, validity, clinical utility) of existing rehabilitation intervention fidelity measures

Search Strategy:

- Databases searched: Academic Search Complete, CINAHL, ERIC, Medline, PsychINFO and Web of Science
- Search terms: ("fidelity” OR “intervention fidelity” OR “quality assurance, health care”) AND (“rehabilitation” OR “occupational therapy” OR “physical therapy”)
- Multi-step review process

Inclusion Criteria:

- Published in a peer-reviewed journal in English
- Development of an assessment that measures intervention fidelity in rehabilitation OR evaluation of psychometrics of an assessment that measures intervention fidelity in rehabilitation
- Fidelity assessment is observational in nature

Quality Assessment:

- Data were extracted using the CanChild Outcomes Measures Rating Form²
- Data are summarized for all variables descriptively
- Quality ratings for the following variables were based on the indicated criteria:
  - Reliability: Coefficient²
  - Content/Construct validity

<table>
<thead>
<tr>
<th>Reliability Coefficient²</th>
<th>Content/Construct validity</th>
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<tbody>
<tr>
<td>0.90 – 1.00</td>
<td>Excellent</td>
</tr>
<tr>
<td>0.80 – 0.89</td>
<td>Adequate</td>
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<tr>
<td>0.80 – 0.79</td>
<td>Poor</td>
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<table>
<thead>
<tr>
<th>Complexity/Interpretation</th>
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<tbody>
<tr>
<td>Easy</td>
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<tr>
<td>Complex</td>
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Quality ratings for the following variables were based on the indicated criteria:

Quality Domains:

- Fidelity establishment
- Fidelity measurement

Clinical Utility:

- Availability: Available in online instructions: Adequate
- Format: Video observation
- Administration Time: Unknown
- Interpretation: Easy

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- American Physical Therapy Association
- National Institute on Disability and Rehabilitation Research

References & Acknowledgements

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