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Overview

• Background: Collective Efficacy
• Instrument Purpose
• Development Process
• Preliminary Results

Background

• Extension of Bandura’s self-efficacy
  – perceptions of group competency
  – distinct from self-efficacy
    • takes into account group concepts
    • not just sum of individual self-efficacy
• Used to predict group performance

Domain Conceptualization

• Shared beliefs and trust
  – group members share similar values/beliefs
  – group members care about one another
Domain Conceptualization

• Confidence in group’s ability to work together
  – problems are best solved through group effort
  – diverse groups can work together
  – group has ability to carry out task

Domain Conceptualization

• Member’s resources
  – adequacy of resources for effort
  – ability to mobilize efforts/Resources to overcome obstacles and create change
  – belief that each individual has role in initiating change

Domain Conceptualization

• Perceived Group Impact/Persistence
  – Persistence of efforts in face of failure or obstacles
  – Belief that efforts will make a short-term impact
  – Belief that efforts will make a long-term impact

Instrument Purpose

• USF Prevention Research Center project in Sarasota County
• Based on Community-Based Prevention Marketing (community-driven)
• Need instrument to:
  – measure changes in CE during intervention
  – select future intervention sites
Phase 1: Item Development  
(Spring 1999)

- Format and Intended Audience
  - Brief self-administered questionnaire
  - Target Group: Members of a defined group
- Created items that match with domain concepts

Phase II: Expert Review  
(Spring 1999)

- Expert Review
  - Appropriateness/Clarity of Items and Response options
- Revisions made to:
  - Clarify instructions
  - Group similar items
  - Reword item stems

Phase III: Pilot Testing

- Round 1 (May 1999):
  - Convenience sample of USF-COPH faculty
  - Elicit feedback from respondents about items
  - Perform item analysis
  - Revise CCEI as necessary
- Round 2 (November 1999):
  - Small group of educators/administrators
- Round 3 (June 2000):
  - FPRC CAC

Results

<table>
<thead>
<tr>
<th></th>
<th>CAC</th>
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<tbody>
<tr>
<td>N</td>
<td>19</td>
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<tr>
<td>Group Mean Score</td>
<td>3.85</td>
</tr>
<tr>
<td>Standard Deviation</td>
<td>.41</td>
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<tr>
<td>Group Mean Range</td>
<td>(3.22, 4.72)</td>
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Reliability

- Overall: .86 (CAC)
- Subdomain Reliability:
  - Trust/belief: .89
  - Ability to work together: .68
  - Member’s Resources: .54 (.71)
  - Group Impact and Persistence: .77

Validity

- Content Validity
  - Domain Sampling Based on Literature
  - Expert Review
- Construct
  - Project Influence Scale (Flynn, 1995)
    - CAC Influence: .63
    - USF PRC Staff Influence: .48
    - Sarasota School Board Influence: .49
    - Sarasota Health Department Influence: .37
  - Group comparisons

Further Research Needed

- Test-retest reliability
- Validity
  - Construct Validity
    - Discrimination ability
  - Criterion
    - predict group success
Questions

References


Definition

“A sense of collective competence shared among individuals when allocating, coordinating, and integrating their resources in a successful concerted response to specific situational demands.”

(Zaccaro et.al., 1995)

Measurement Issues

• Three ways to measure CE:
  – Sum of individual member SE (weak)
  – Sum of individual perceptions of how well group works together and how likely group is to succeed (best)
  – A group consensus process which would determine a collectively agreed upon group efficacy (flawed)
### Reliability of Project Influence Scale

<table>
<thead>
<tr>
<th>Sub-Domain</th>
<th>Cronbach’s Alpha (CAC 6-2000 Data)</th>
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<tbody>
<tr>
<td>USF-PRC Staff</td>
<td>.73</td>
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<tr>
<td>CAC</td>
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