Can mixed methods designs be applied to mixed studies reviews?

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3 main types of studies & 3 main types of reviews

Quantitative Review

Qualitative review

Mixed studies review

Quantitative studies

Qualitative studies

Mixed methods studies
Mixed studies review

Rationale

- Better understand complex interventions, programs, and phenomena

Definition

- Type of literature review in which a team of reviewers included qualitative, quantitative and mixed methods studies.

- Type of mixed methods research where data sources consist of documents reporting qualitative findings and quantitative results of included studies.

7 stages of systematic review

- Stage 1: Formulate a review question
- Stage 2: Define eligibility criteria
- Stage 3: Apply an extensive search strategy
- Stage 4: Identify potential relevant studies
- Stage 5: Select relevant studies
- Stage 6: Appraise the quality of studies
- Stage 7: Synthesize included studies
Mixed methods designs (primary research)

(Creswell & Plano Clark, 2011)

Systematic Mixed Studies Review:
FRAMEWORK OF SYNTHESIS DESIGNS
Pluye & Hong
Annual Review of Public Health 2014 (p. 37)
Convergent QUANT synthesis

- QUANT results transformed into QUANT data
- Techniques
  - Content analysis
  - Configurative comparative method

Convergent design
QUANT synthesis of all study types

Convergent QUAL synthesis

- QUANT results transformed into QUAL data
- Techniques
  - Qualitative thematic analysis
  - Realist synthesis
  - Critical interpretive synthesis
  - Meta-narrative synthesis
  - Multiple case synthesis

Convergent design
QUAL synthesis of all study types
Sequential explanatory synthesis

- **2 phases**
  - Synthesis of QUANT studies and of QUANT part of MM studies
  - Synthesis of QUAL studies and of QUAL part of MM studies
- **New explanations:**
  - E.g.: Synthesis of QUAL studies help to explain the differences in effects

Sequential exploratory synthesis

- **2 phases**
  - Synthesis of QUAL studies and of QUAL part of MM studies
  - Synthesis of QUANT studies and of QUANT part of MM studies
- **New hypotheses:**
  - E.g.: Develop a typology from QUAL synthesis and measure the frequencies of each concept in QUANT synthesis
Purpose

- Check if this classification can be applied to mixed studies reviews.

Methods

- Database: Medline® (1946 - February 2014)
- Search strategy:
  - (qualitative and quantitative) OR multi method* OR multimethod OR mixed method* OR mixed data OR hybrid data OR combined research OR mixed approach* OR mixed stud* OR mixed research.ti

  AND

  - limit to the ‘systematic review’ filter
Selection criteria

- **Included**
  - Mixed studies review (QUANT + QUAL)

- **Exclusion**
  - Primary studies
  - Reviews combining only quantitative studies or only qualitative studies
  - Methodological papers

- **Excluded at data analysis**
  - Papers that did not describe how data were synthetized

Results

- Records identified: 169
- Excluded: 126
- Studies included: 43
- Excluded: 2

- Convergent QUAL: 24
- Convergent QUANT: 2
- Sequential exploratory: 6
- Sequential explanatory: 3
- Not classified: 6
Not classified?

- QUAL and QUANT syntheses in the results section
- Did not combine the results of both syntheses together

- Parallel

Discussion
Framework supported & potential improvement

- Sequential
  - Contradictions in papers

- Convergent
  - Transformative

- Parallel design
  - Consider as mixed studies review when no integration?

- Multi-phase?
Limitations

- Not exhaustive search
  - Only 1 database in health
  - Search terms only in title

- Sample not representative of all mixed studies reviews
  - General search
  - No specific terms for realist synthesis, meta-narrative synthesis, ....

QUESTIONS

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http://toolkit4mixedstudiesreviews.pbworks.com/
References