

Protocol for a Systematic Review of The Common Sense Model and Self-Efficacy

Registration: None

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Contributions

Dr. Breland conceptualized the review, all authors contributed to data collection and analysis.

Dr. Breland is the guarantor of this work.

Amendments

- Given the number of studies in the review, we ultimately decided to separately present results for self-management behaviors and health outcomes.
- Given overlap in cohorts, we excluded studies that reported on the same outcome at the same time point using the same cohort as another study.
- After collecting data on the first literature search, we decided to use the Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies (National Institutes of Health, 2014) to assess study quality as “good,” “fair,” or “poor.”
- We updated the search, using the same criteria and methods, on April 10, 2019, which resulted an additional 5 articles being included.
- We added setting to data extraction
- Review question was split into two questions for clarity: 1) Are Common Sense Model constructs and self-efficacy both associated with self-management behaviors when included in the same statistical model? and 2) Are Common Sense Model constructs and self-efficacy both associated with health outcomes when included in the same statistical model?

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Introduction: The Common Sense Model and self-efficacy have separately guided research and interventions related to chronic illness self-management for decades. While the frameworks

overlap, it is likely that they offer complementary information. Therefore, we planned a systematic review, following PRISMA guidelines, to answer the question: Do the Common Sense Model and self-efficacy provide independent contributions to the prediction of chronic illness self-management and health outcomes?

Methods

Eligibility criteria: Published in English in a peer-reviewed journal, population with chronic condition, measures of both the Common Sense Model and self-efficacy in at least one statistical model related to chronic illness self-management behaviors or health outcomes. Any study design and length of follow-up is acceptable.

We will exclude articles using general self-efficacy measures, review articles, studies with pediatric populations, studies reporting on qualitative work, studies that are not described as testing the Common Sense Model or self efficacy, studies that do not provide sufficient information on whether the measures of interest were simultaneously included in statistical models, and studies in which statistical models/outcomes were not clearly defined.

Information sources: PubMed, Medline, PsycInfo, CINAHL, and Web of Science

Search strategy: (((("social cognitive theory") OR "self efficacy") OR "self-efficacy")) AND (((("common sense model") OR "illness perception*") OR "illness representation*") OR "illness belief*") OR "treatment representation*") ← Based on PubMed search.

Study records and data collection process: EndNote will be used to collect citations, remove duplicates, and sort exclusion criteria. Data extraction and quantitative analysis will be tracked in Excel.

Selection process: Two reviewers will screen half of all abstract for preliminary exclusions (not in English, not peer-reviewed, review paper, pediatric population). Both reviewers will review remaining full text articles until they reach 80% agreement on exclusion, at which point they will review the remaining articles separately. Both reviewers will extract data from included full text articles. During this process, each of the two authors will do primary data extraction for half the articles and then validate extraction for the other half of the articles. Finally, all three authors will review the summary tables separately and together to narratively describe and synthesize results.

Data items: First author, date, location, sample size, gender distribution, race/ethnicity distribution, study design, patient population, type of analysis, Common Sense Model measure, Self-Efficacy Theory measure, self-management behavior(s), health outcome(s), variables included in final analyses, whether self-management behaviors and/or health outcomes were associated with: 1) both the Common Sense Model and self efficacy; 2) the Common Sense Model, but not self efficacy; 3) self efficacy, but not the Common Sense Model; or 4) neither the Common Sense Model nor self efficacy, and a qualitative description of findings.

Outcomes: Data will be collected for any models with a self-management behavior (e.g., exercise, diet, or medication adherence) or health outcome (e.g., biometric, quality of life, pain, disability, mental health diagnosis). Because we will collect information on the effects of Common Sense Model constructs and self-efficacy when they are included in the same model, most models will also include many other factors (e.g., demographic characteristics, other psychological constructs). Therefore, we will not report effect sizes as they would be difficult to compare across models with different covariates and outcomes.

Risk of bias: As most studies will be cross-sectional – n/a

Data synthesis: We will summarize the number of models in which the following were significant correlates: 1) both the Common Sense Model and self-efficacy; 2) the Common Sense Model, but not self-efficacy; 3) Self-efficacy, but not the Common Sense Model; or 4) neither the Common Sense Model nor self-efficacy.

Given our interest in understanding whether the constructs were statistically significant correlates in the same statistical model (i.e., coefficients in multivariable analyses), our approach prohibited meta-analysis, which relies on coefficients from bivariate analyses.

Meta-bias: Not assessed

Confidence in cumulative evidence: Not assessed