Applying Sex and Gender Analysis to Systematic Reviews

Development of A New Knowledge Translation Tool

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Background

• The safety and effectiveness of health interventions can differ between and within populations for many reasons including biology of sex and gender.
• This knowledge is reflected in the growing consensus that sex and gender analysis (SGA) in health research is essential for scientific and clinical practice.
• There is a lack of consistent analysis and reporting of evidence concerning sex/gender in systematic reviews (Tugwell et al. 2008; Daudt et al. 2012; Welch et al. 2012).
• Review authors and editors have identified a need for guidance on the integration of SGA into systematic review methods.

Objectives

• To develop a tool to increase awareness of, and uptake of SGA in systematic review planning, conduct, reporting, and appraisal.

Methods

• A brief review tool was developed based on emerging sex/gender theory, empirical evidence, prior checklists and knowledge translation on theory (informed by the Systematic Reviews on Theory and guided by a knowledge (Ko) function). The intended users were identified as systematic review authors, editors, and peer reviewers.
• The tool was adapted, and piloted with the Cochrane Hypertension MUSAD and MOCunteerable Review Groups. This choice was based on reported sex/gender differences in at least one of the reviews covered by the study reviewers.
• Participants in each review group were consulted on feedback at each stage of development.
• The tool was finalized at a consensus meeting of experts in SGA, review group content areas and systematic review methodology.

As part of the initial evaluation process, the tool was trained in a training workshop at the 2012 Cochrane Canada Symposium.

Results

The tool addresses:
1. why sex/gender are important for systematic reviews in general
2. linking to sex/gender analysis for Cochrane authors
3. relevance of sex/gender to the specific content area of the tool review groups
4. how to consider sex/gender in each stage of a review

• Overall participant feedback was positive (fig. 1).
• Perceived obstacles to SGA included a lack of trained reviewers, unreported or disparate data in primary studies, methodological limitations associated with subgroup analysis, and challenges of measuring gender.
• The need to ensure a common terminology for diverse audiences was identified as key during development and piloting.

Conclusions

• A tool was developed to “make the case” for consideration of SGA in systematic reviews and to guide reviewers on how to implement SGA. The tool complements the Sex and Gender Appraisal Tool for Systematic Reviews previously developed by our working group (Daudt et al. 2015). Both require further validation.
• Reasons for omission of SGA in systematic reviews are multifactorial. For example, systematic reviewers may replicable knowledge or reporting gaps from previous studies. It is important for research synthesis to report what is known and not known about sex/gender, with the ultimate goal of improving knowledge production and ensuring its relevance to diverse populations.

Next steps

• Engage a wider spectrum of systematic review stakeholders to evaluate the tool.
• Integrate or link the tool with existing methods guidelines, including easy methods, and appraisal tools such as AMSTAR.
• Tailor the survey for end users and consumers.
• Test long-term impacts of the tool, for example, by monitoring integration of SGA into Cochrane protocols and completed reviews and the tool’s dissemination to review groups.

What is sex/gender analysis?

• Even when health issues are sex-specific, the dynamics of gender may affect prevention, how and where care is sought, diagnosis, treatment, and outcome.
• At an individual level, one’s sex is “embedded” within one’s gender. Explanation of sex differences must therefore consider the interaction of sex and gender.
• Disaggregating data by sex is a necessary but not sufficient step for sex/gender analysis.
• The terms ‘sex’ and ‘gender’ are not interchangeable, but rather, the pathways between these processes should be explored and documented.
• Sex/gender roles are usually influenced by the shifting approach to the sex/gender and the inability to separate the biological (sex) from the social (gender).
• The reporting of sex/gender in populations does not imply an equity perspective unless further analysis is undertaken.

Applying SGA – a few pointers

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References and resource list are available from: cochrane sgba@gmail.com

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Figure 1. Pilot Evaluation – selected items and responses

Figure 2. Sex/gender as cross-cutting determinants of health

22 attended the workshops; 10 returned evaluations. Of 10 respondents, 9 were systematic review authors.