SWAT 70: Multi criterion decision analysis (MCDA) to improve decision quality in an online Delphi study

Objective of this SWAT
To examine the effects of using multi-criteria decision analysis (MCDA) as a support tool for an online Delphi study.

Study area: Decision-Making
Sample type: Participants
Estimated funding level needed: Medium

Background
This SWAT will examine how decision-making support tools affect decision quality in an online three round Delphi study. It will use the Annalisa implementation of multi-criteria decision analysis (MCDA) software, [1,2] which customizes and personalizes the user data visually, allowing the aggregated Delphi outcomes to be shown alongside the input of the individual participant. The display shows criterion weightings, option performance ratings and (weighted) option scores separately. The system is dynamic and can change with additional information being fed into the software.

The first implementation of this SWAT will test MCDA support in an online Delphi about the declarations and methods that are useful to include when preparing the protocol for a participatory online trial. Participants will be randomized to either Delphi plus MCDA or Delphi only. Those in the MCDA group will use the software during the online Delphi in round three. Following the feedback and analysis of round three from both groups, the project's Advisory Board will meet to come to consensus on the feedback. The membership of the Advisory Board will reflect the characteristics of the Delphi population, but they will not be Delphi participants.

Interventions and comparators
Intervention 1: Delphi feedback only
Intervention 2: Delphi feedback plus MCDA

Index Type: Method for decision-making

Method for allocating to intervention or comparator
Randomization 1:1

Outcome measures
Primary: Decision quality score on My Decision Quality (MDQ)[3] with special interest in heterogeneity in both intervention groups, measured following consensus.
Secondary: Time to participant submission of feedback for the final Delphi round.

Analysis plans
Data will be analyzed quantitatively using the MDQ[3] and qualitatively using feedback comments.

Possible problems in implementing this SWAT
Technical or usability challenges may impact on the ability of participants to engage with the online Delphi.

References
1. Dowie J, Kjer Kaltoft M, Salkeld G, et al. Towards generic online multicriteria decision support in patient-centred health care. Health Expectations 2015;18:689-702.
2. Kaltoft MK, Dowie J, Turner R, et al. Decisional equipoise is not decisional conflict: avoiding the false clarity bias in the evaluation of decision aids and Shared Decision Making processes. F1000Research 2015;4-942.
3. Kaltoft M, Cunich M, Salkeld G, et al. Assessing decision quality in patient-centred care requires a preference-sensitive measure. Journal of Health Services Research and Policy 2014;19:110–7.

Publications or presentations of this SWAT design

Examples of the implementation of this SWAT

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Date of idea: 1/JAN/2018
Revisions made by:
Date of revisions: