



How do we best measure diet quality?

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Introduction

- *A priori* diet quality indices (DQIs) are based on current nutrition knowledge and measure diet quality at a single time point

Aim

To assess the effectiveness of *a priori* DQIs to measure changes in diet quality in intervention trials

Methods

- Systematic search of Medline, CINAHL, EMBASE and Cochrane's CENTRAL database from January 1994 – June 2020
- *Inclusion criteria*: RCTs that had a primary or secondary aim to improve diet quality of adults AND measured change in diet quality using a validated *a priori* DQI
- Cochrane's Risk of Bias 2.0 assessment tool was used to assess study quality risk of bias

Results

- 9 different DQIs were included in the review.
- 6 of the included indices (Alternative Healthy Eating Index, Australian recommended Food Score, DASH Food Score, Diet Quality Index – International, Diet Quality Index – Revised, Index of Diet Quality, PANDiet Score & Mediterranean Diet Score) reported significant changes in diet quality score.
- All studies had some risk of bias due to inclusion of self-reported dietary data (Figure 1).
- There was sufficient evidence to suggest that the Healthy Eating Index (HEI) can effectively measure change in diet quality, particularly in adults with chronic diseases (Figure 2).

Figure 1: Summary Assessment of Cochrane's Risk of Bias 2.0 for all studies combined

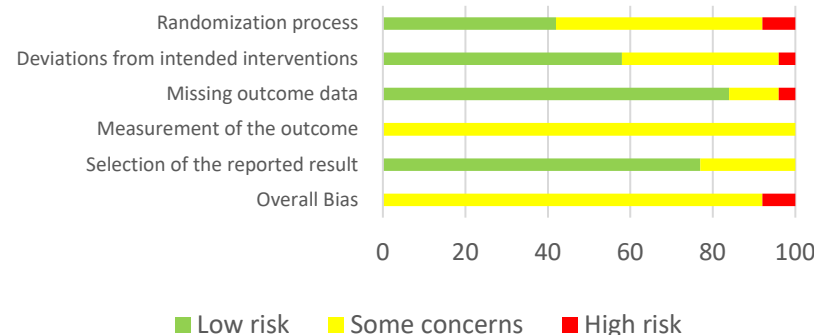
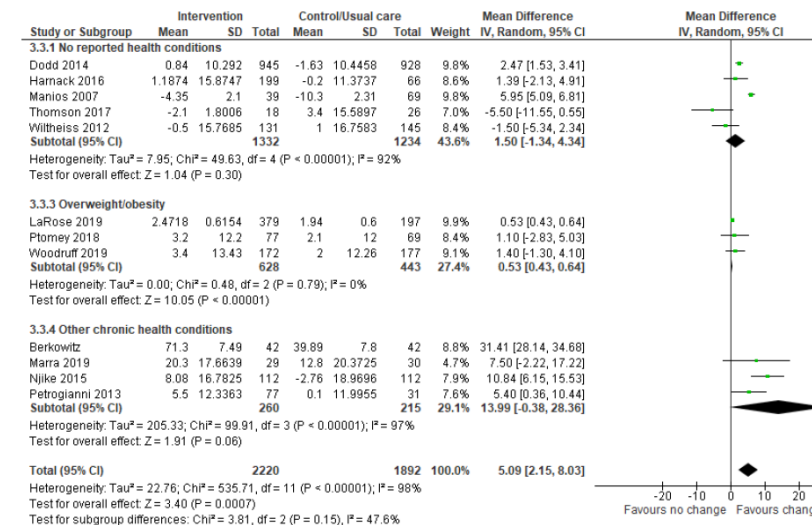


Figure 2: Meta-analysis of mean difference of Healthy Eating Index (HEI) Scores at 3-8 months



Conclusion

- The HEI can effectively measure change
- DQIs were more likely to measure change if they reflected the diet pattern being implemented, if the intervention diet was significantly different from baseline and control diets, and if the study was adequately powered to detect change
- DQIs need to be validated to measure change.