

The Effectiveness of Couples' Lifestyle Interventions (Randomised Controlled Trials) on Weight Change: A systematic review and Meta-Analysis

Background: Obesity is still a major public health concern and a plethora of lifestyle-interventions targeting weight-loss at individual level have shown poor success. Health related behaviours including eating, tend to be concordant in couples which means they might share an obesity risk or support each other's effort to change these behaviours i.e. weight loss. The aim of this systematic review (SR) and meta-analysis (MA) of randomised controlled trials (RCTs) was to assess the weight change effects of lifestyle interventions targeting couples compared to individuals or no-intervention.

Methods: Four databases (MEDLINE Ovid, Scopus, CINHALL and mySearch: EBSCO Discovery Service Tool) were systematically searched from inception until 28th March 2019. Studies were excluded if they had no diet advice or participants were not romantic partners. Risk of bias was assessed using the Cochrane risk of bias tool. Meta-analysis was conducted using the random-effect model to estimate the weighted mean difference (WMD) with 95% confidence interval (CI).

Results: Thirteen studies met the eligibility criteria for this SR (total participants: n=1,275) and 9 of them were included in the MA (total participants: n=774) for weight change; 1 study was excluded as outlier. Significant intervention effects were identified for body weight in couples' intervention vs. individual intervention (WMD = -2.25 kg, 95% CI -3.63 to -0.88) (Figure 1), and in couples' intervention vs. no intervention (WMD = -4.5 kg, 95% CI -6.62 to -2.38) (Figure 2).

Conclusions and implications: This is the first SR and MA to investigate the effects of lifestyle interventions on weight change in couples compared to individuals. The results suggest that lifestyle-interventions in couples produce significantly greater weight change compared to interventions on individuals.

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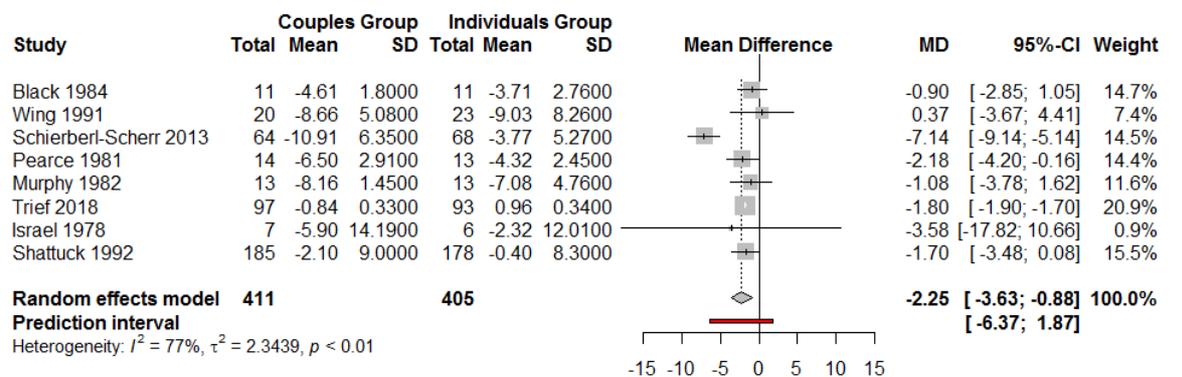


Figure 1 Change in weight by comparing couples' intervention (direct or indirect) versus individual intervention

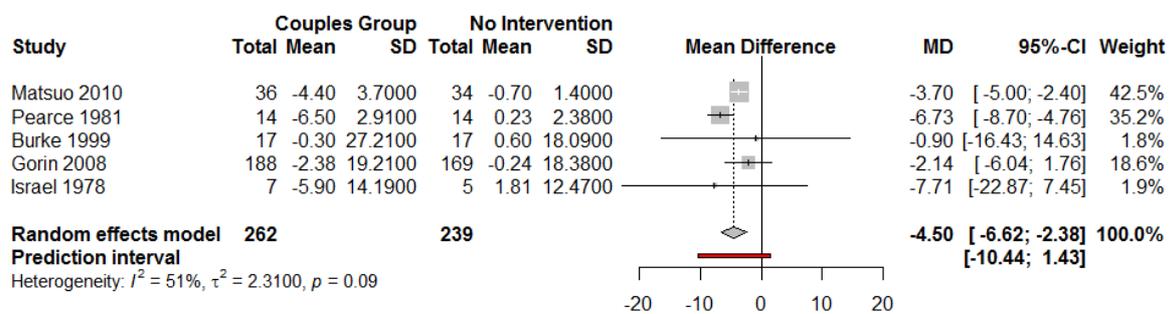


Figure 2 Change in weight by comparing couples' intervention (direct or indirect) versus no intervention

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Keywords

Lifestyle interventions, couples, body weight change, systematic review and meta-analysis