Do intensive preoperative and postoperative behavioural interventions impact on health-related bariatric surgery outcomes? A systematic review

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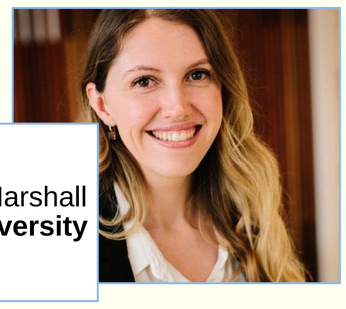
Do intensive preoperative and postoperative behavioural interventions impact health-related bariatric surgery outcomes?

A systematic review and meta-analysis



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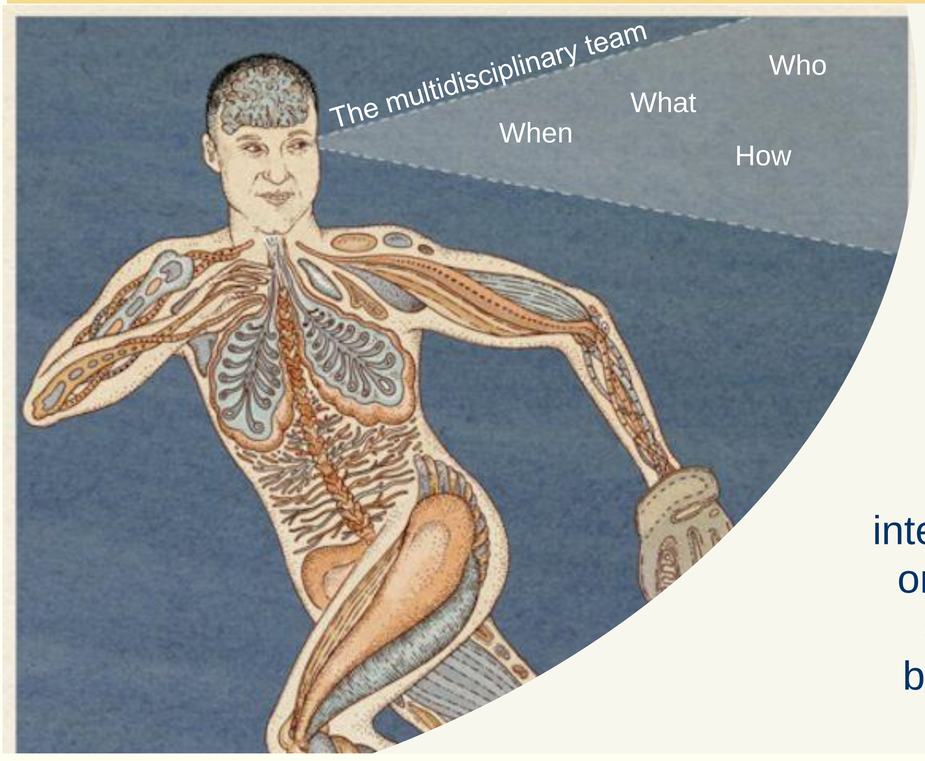
Although pre- and postoperative support by a multidisciplinary team (MDT) is recommended as best practice, it is unknown if intensive behavioural interventions improve outcomes beyond standard MDT support.

Purpose



To evaluate the effect that intensive pre- and/or post-operative behavioural interventions have on health-related outcomes post-bariatric surgery.

Methods

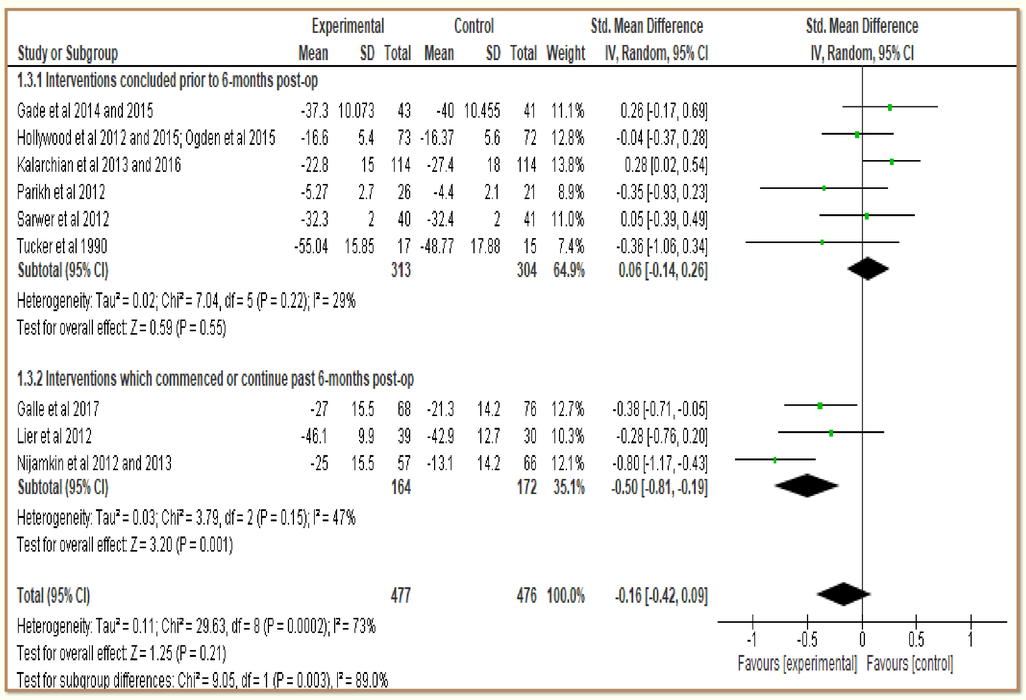
Six databases were searched and 6,871 records screened for eligibility. Risk was assessed by Cochrane Risk of Bias tool, meta-analysis performed using RevMan, and confidence in the body of evidence for pooled outcomes appraised using GRADE.

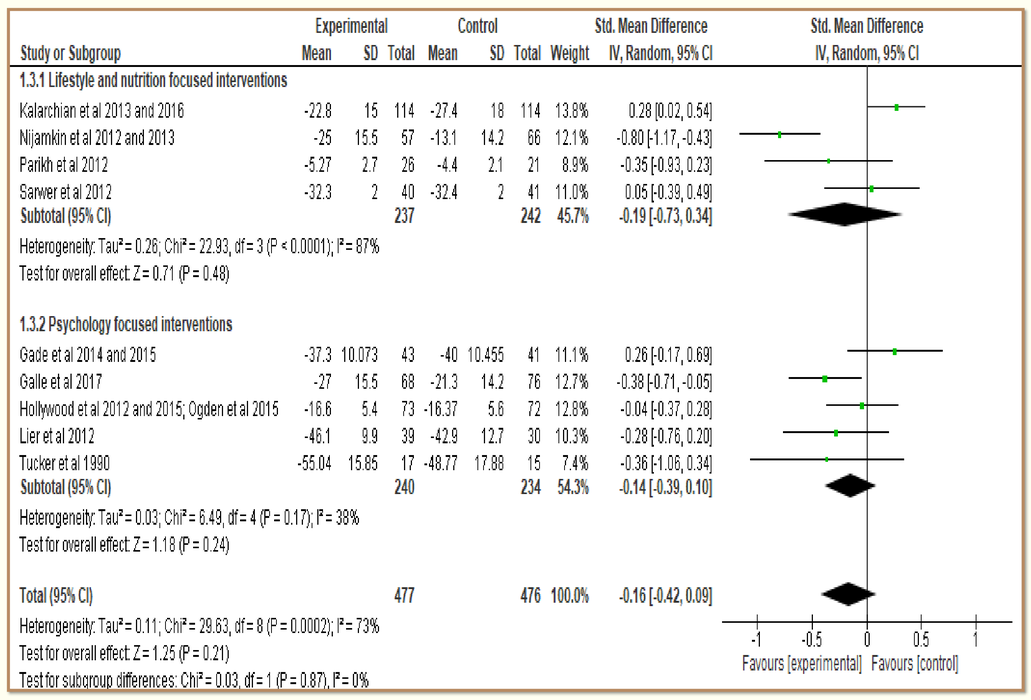
Findings

There were a total of n=953 participants (mean age 33-46 years; 63-85% female). Risk of bias was unclear to high in all studies.

MDT characteristics

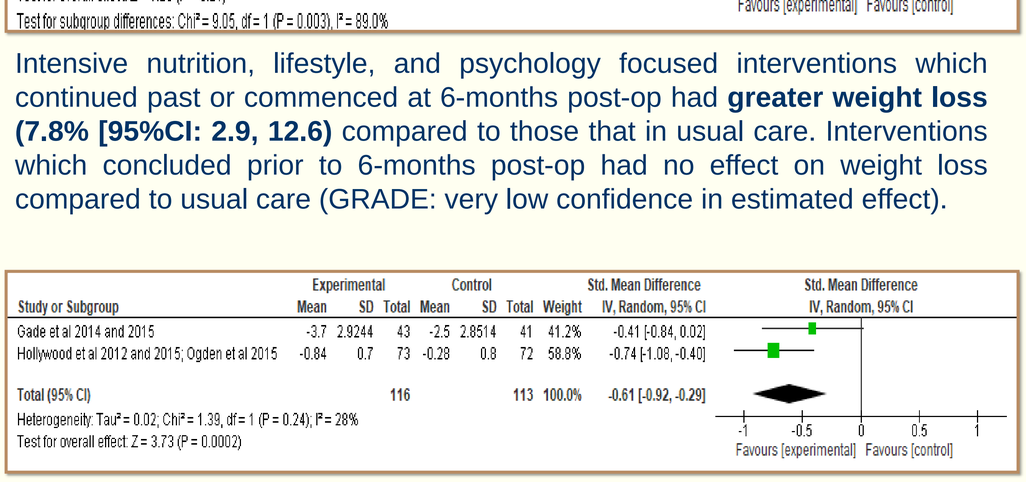
Interventional MDT characteristic	Lifestyle & nutrition interventions n=4 studies	Psychology interventions n=5 studies
• Added a health discipline • Increased intensity	• 100% • 100%	• 100% • 80%
Interventionists	• 75% dietitian • 25% surgeon • 25% unclear	• 20% physiotherapist • 80% psychologist • 20% psychiatrist • 20% therapist
Content	Mostly counselling	Mostly cognitive behavioural therapy





Intensive nutrition, lifestyle, and psychology focused interventions which continued past or commenced at 6-months post-op had **greater weight loss (7.8% [95%CI: 2.9, 12.6)** compared to those that in usual care. Interventions which concluded prior to 6-months post-op had no effect on weight loss compared to usual care (GRADE: very low confidence in estimated effect).

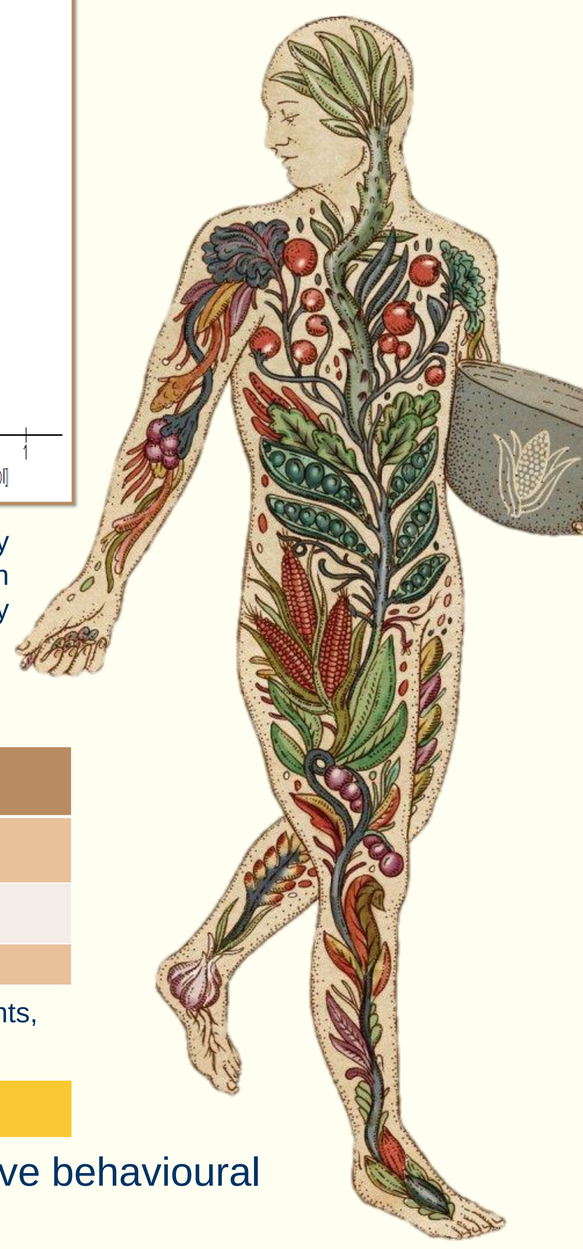
Intensive behavioural pre- and/or postoperative interventions delivered by an MDT had no effect on weight loss, with no difference between subgroups (lifestyle & nutrition interventions versus psychology interventions).



Intensive psychology focused interventions **decreased depressive symptoms** compared to usual care (GRADE: very low confidence in estimated effect).

Other health-related outcomes	Pooled outcome
Anxiety	No effect (p=0.16)
Systolic blood pressure	No effect (p=0.91)
Diastolic blood pressure	No effect (p=0.16)

Insufficient data to pool quality of life, blood lipids, adverse events, comorbidity incidence, glycaemia.



Implications for practice

Pre- and postoperative MDT support of bariatric surgery is essential to ensure patient safety; however, intensive behavioural interventions of any type appear to be effective only if they continue past or commence at 6-months post-op.

Confidence in the estimated effects are very low due to lack of blinding in studies and a poor of precision of the pooled estimates; further research will strengthen confidence in the body of evidence.