

Bond University
Research Repository



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

Marshall, Skye; Mackay, Hannah; Rich, Graeme; Isenring, Elisabeth

Published in:
Clinical Nutrition

DOI:
[10.1016/S0261-5614\(19\)32413-6](https://doi.org/10.1016/S0261-5614(19)32413-6)

Licence:
CC BY-NC-ND

[Link to output in Bond University research repository.](#)

Recommended citation(APA):
Marshall, S., Mackay, H., Rich, G., & Isenring, E. (2019). Do intensive preoperative and postoperative behavioural interventions impact on health-related bariatric surgery outcomes? A systematic review. *Clinical Nutrition, 38*(S1), s274. [MON-PO580]. [https://doi.org/10.1016/S0261-5614\(19\)32413-6](https://doi.org/10.1016/S0261-5614(19)32413-6)

General rights

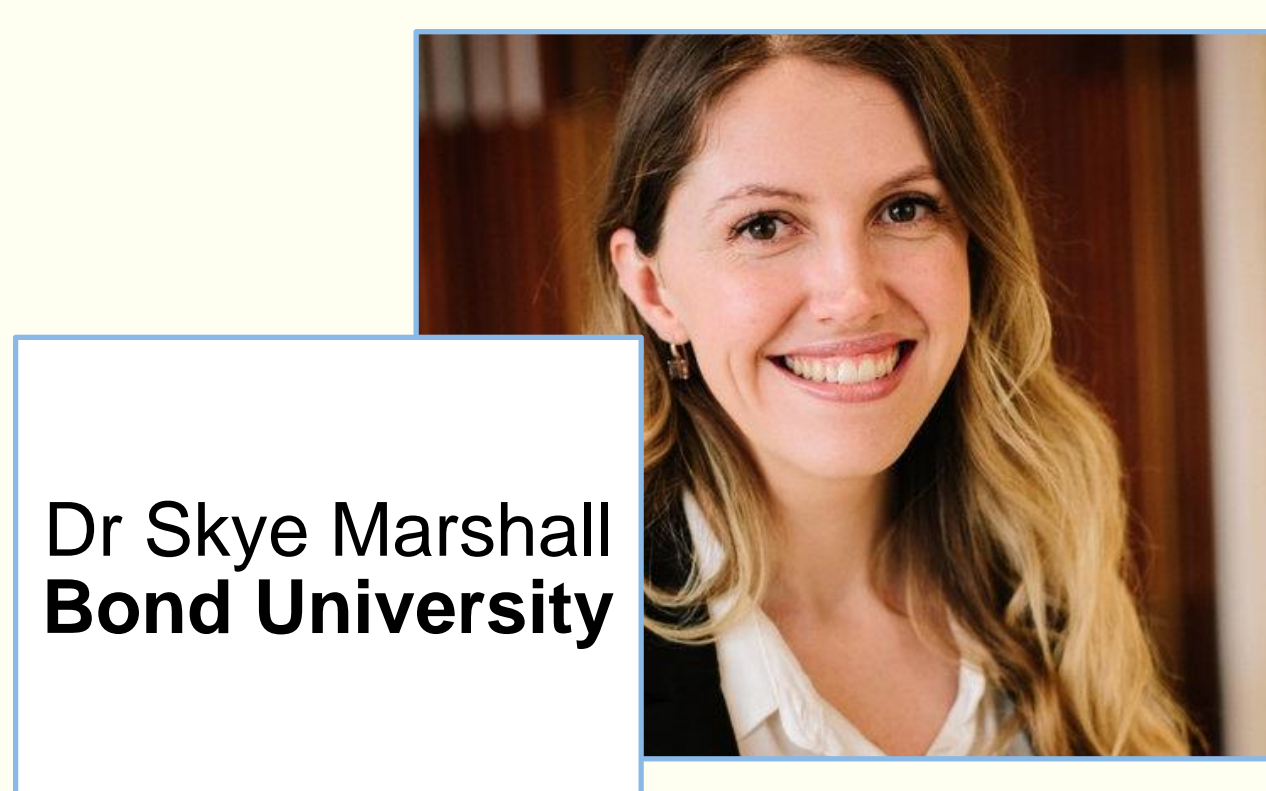
Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

For more information, or if you believe that this document breaches copyright, please contact the Bond University research repository coordinator.

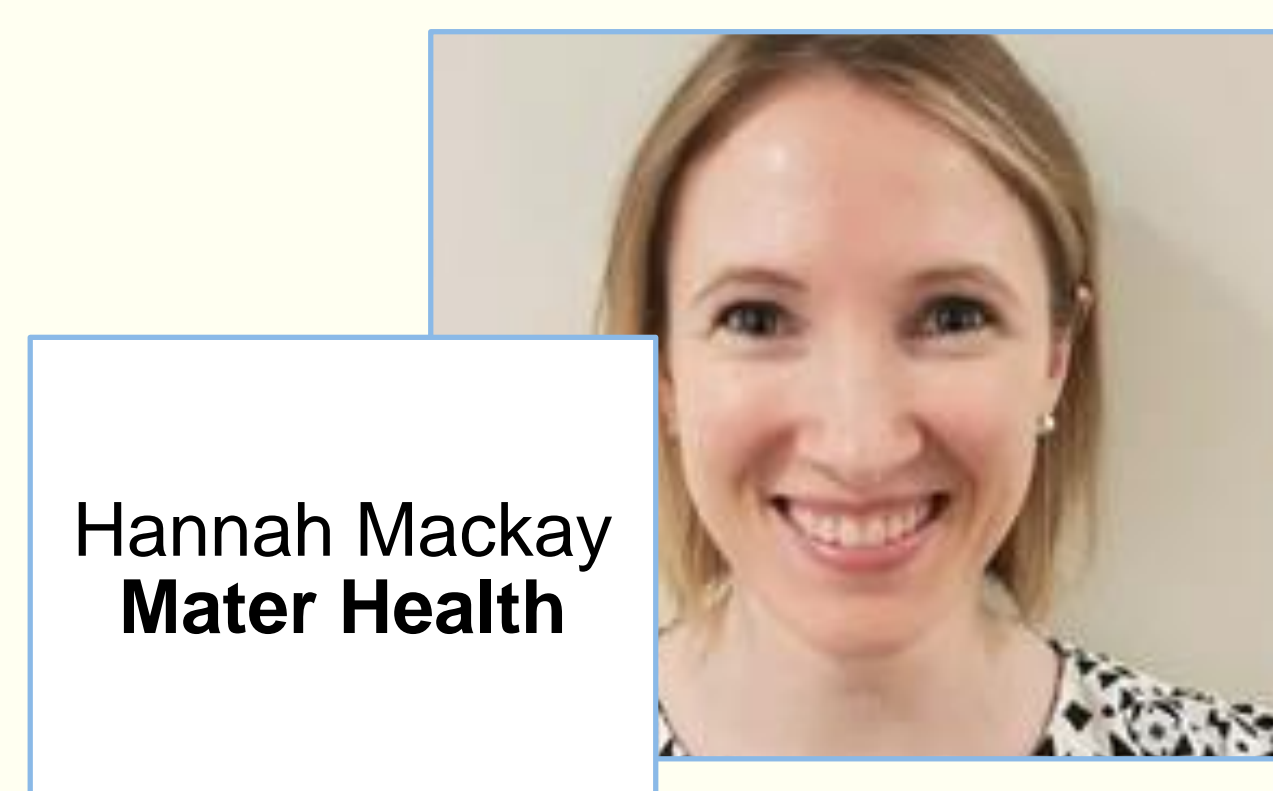
Do intensive preoperative and postoperative behavioural interventions impact health-related bariatric surgery outcomes?



A systematic review and meta-analysis



Dr Skye Marshall
Bond University



Hannah Mackay
Mater Health



Dr Graeme Rich
Bariatrics
Australia

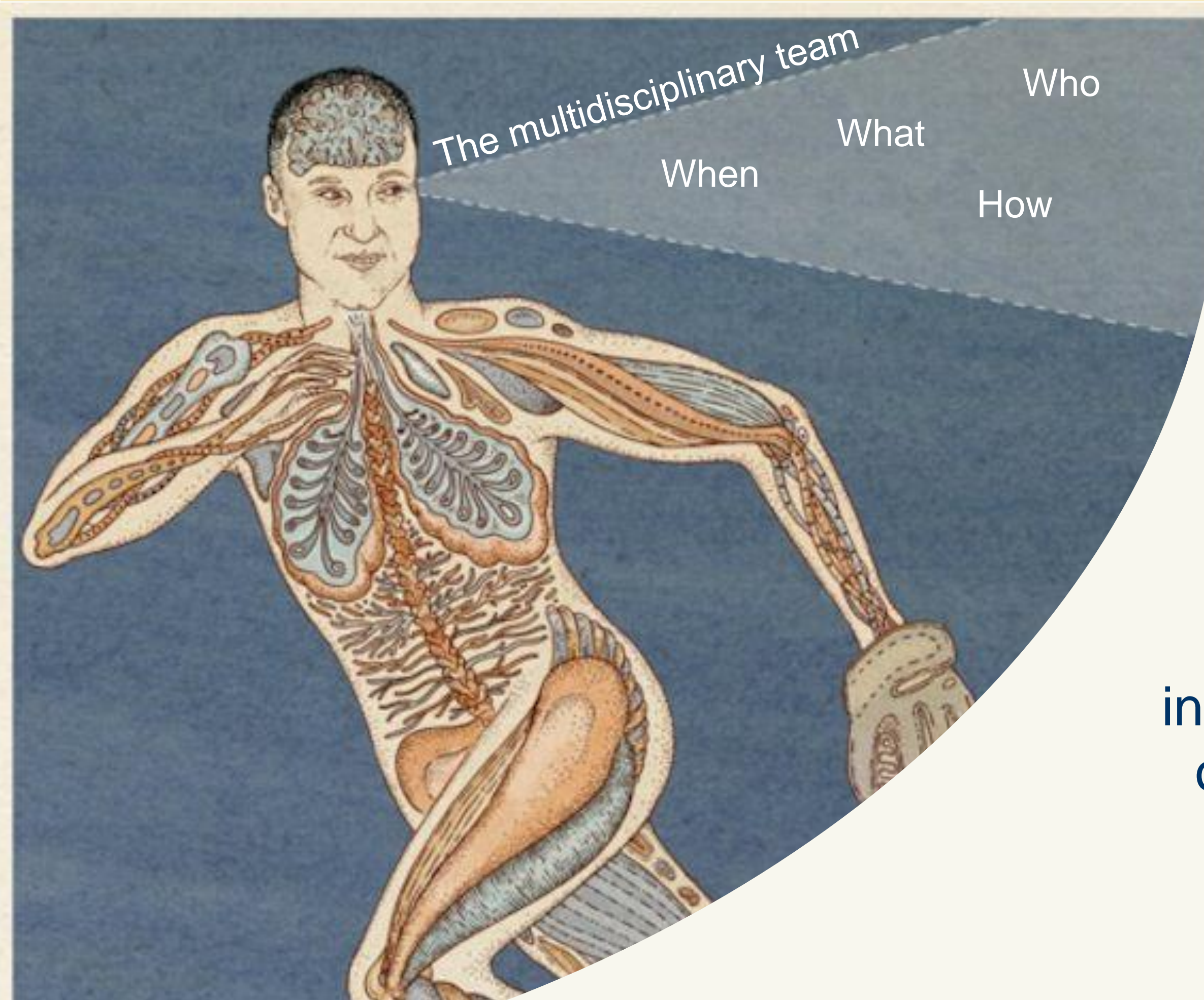


Prof. Liz Isenring
Bond University

skye_marshall@bond.edu.au; @DrSkyeMarshall

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



The multidisciplinary team
Who
What
When
How

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

Methods

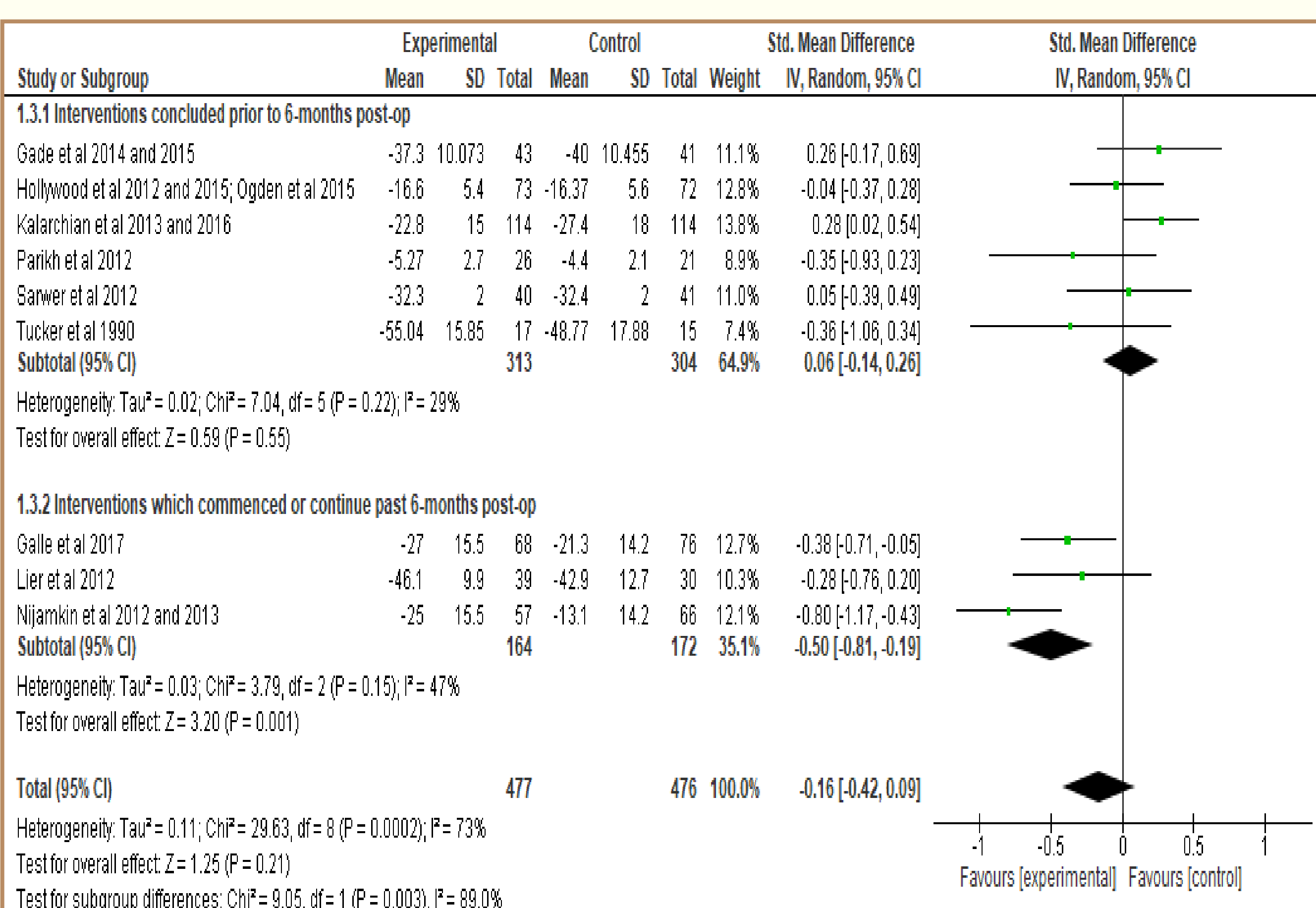
Six databases were searched and 6,871 records screened for eligibility. Risk was assessed by Cochrane Risk of Bias tool, meta-analysis performed using RevMan, and confidence in the body of evidence for pooled outcomes appraised using GRADE.

Findings

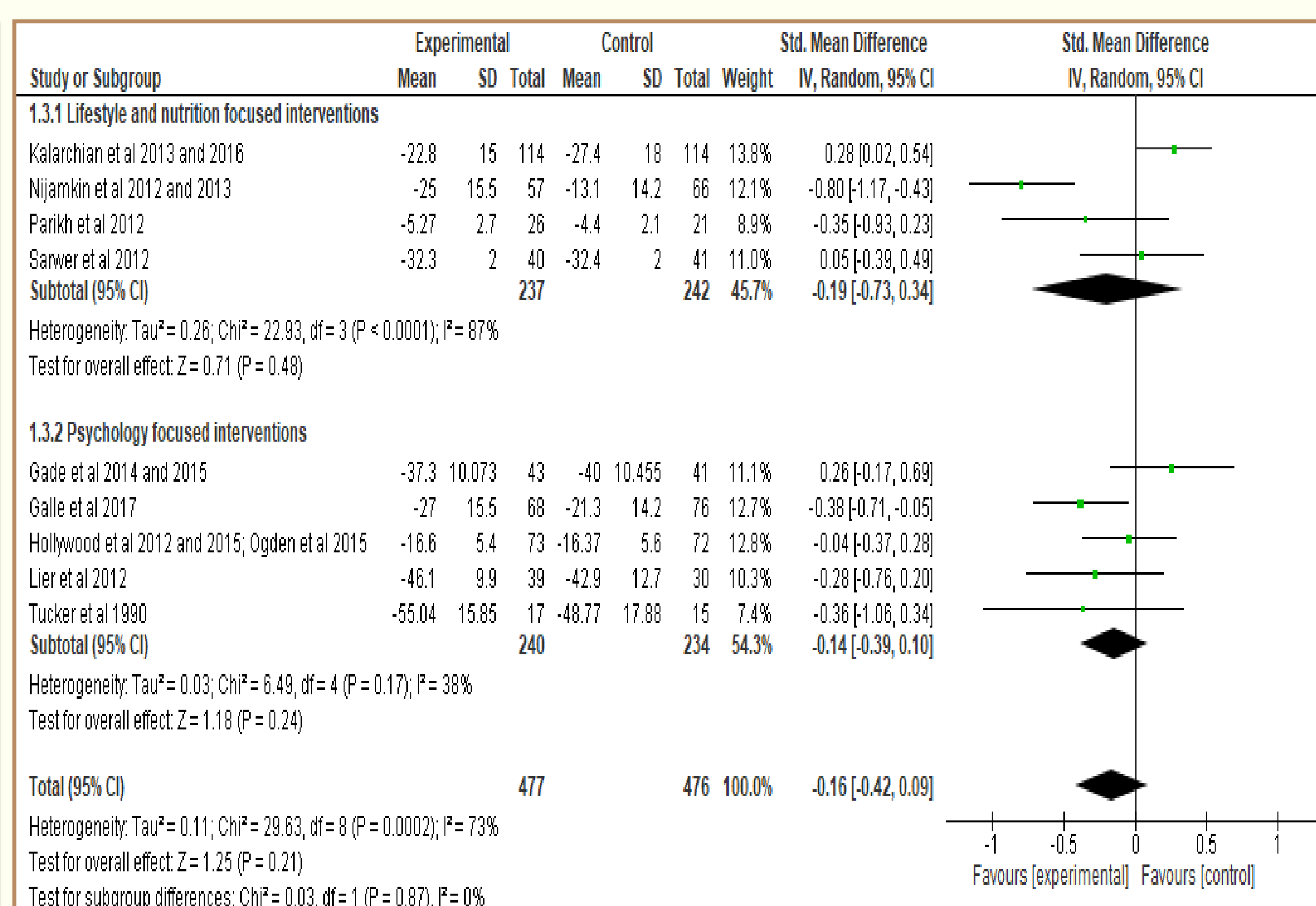
There were a total of n=953 participants (mean age 33-46 years; 63-85% female). Risk of bias was unclear to high in all studies.

MDT characteristics

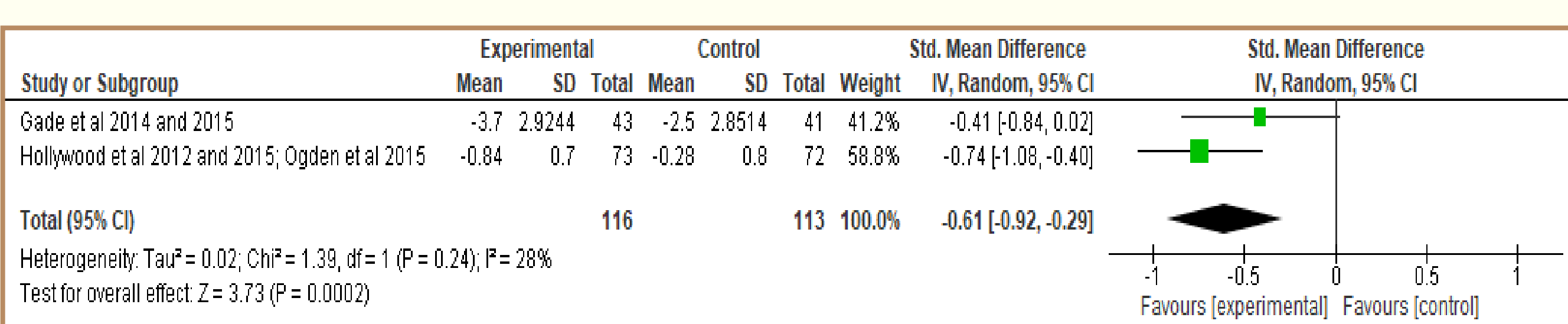
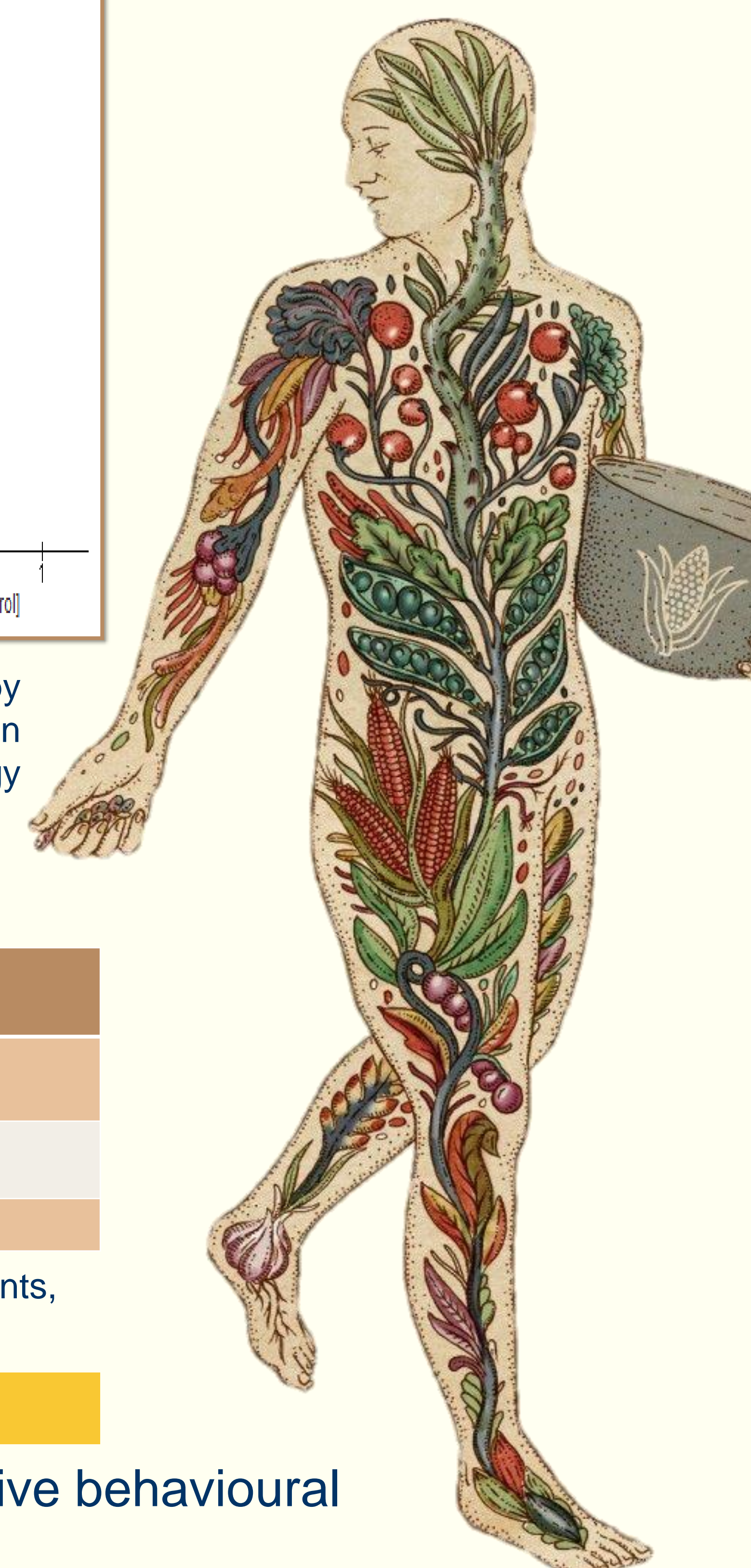
Interventional MDT characteristic	Lifestyle & nutrition interventions n=4 studies	Psychology interventions n=5 studies
• Added a health discipline • Increased intensity	• 100% • 100%	• 100% • 80%
Interventionists	• 75% dietitian • 25% surgeon • 25% unclear	• 20% physiotherapist • 80% psychologist • 20% 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.