

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

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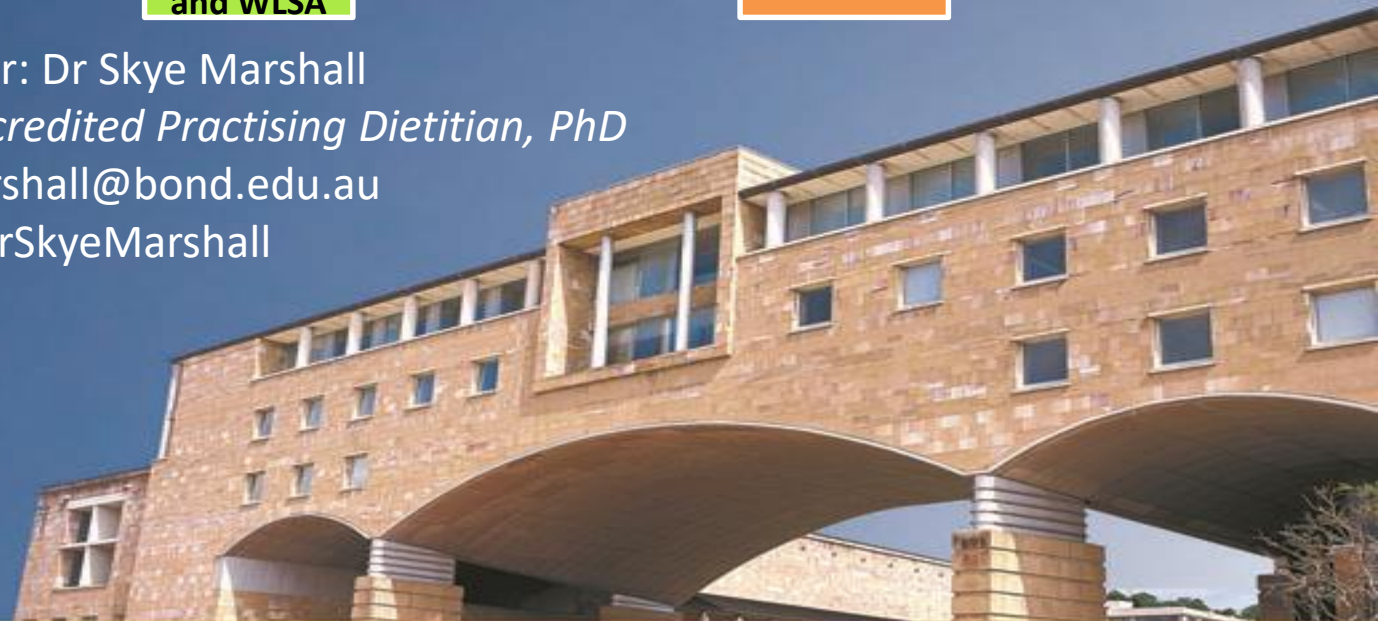
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Do intensive preoperative and postoperative multidisciplinary interventions impact health-related bariatric surgery outcomes? *A systematic literature review and meta-analysis*



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Variation in response to bariatric surgery

Type of surgery

Surgical technique

Non-modifiable patient variation


Psychosocial variables

Eating patterns

Physical activity

Follow-up attendance

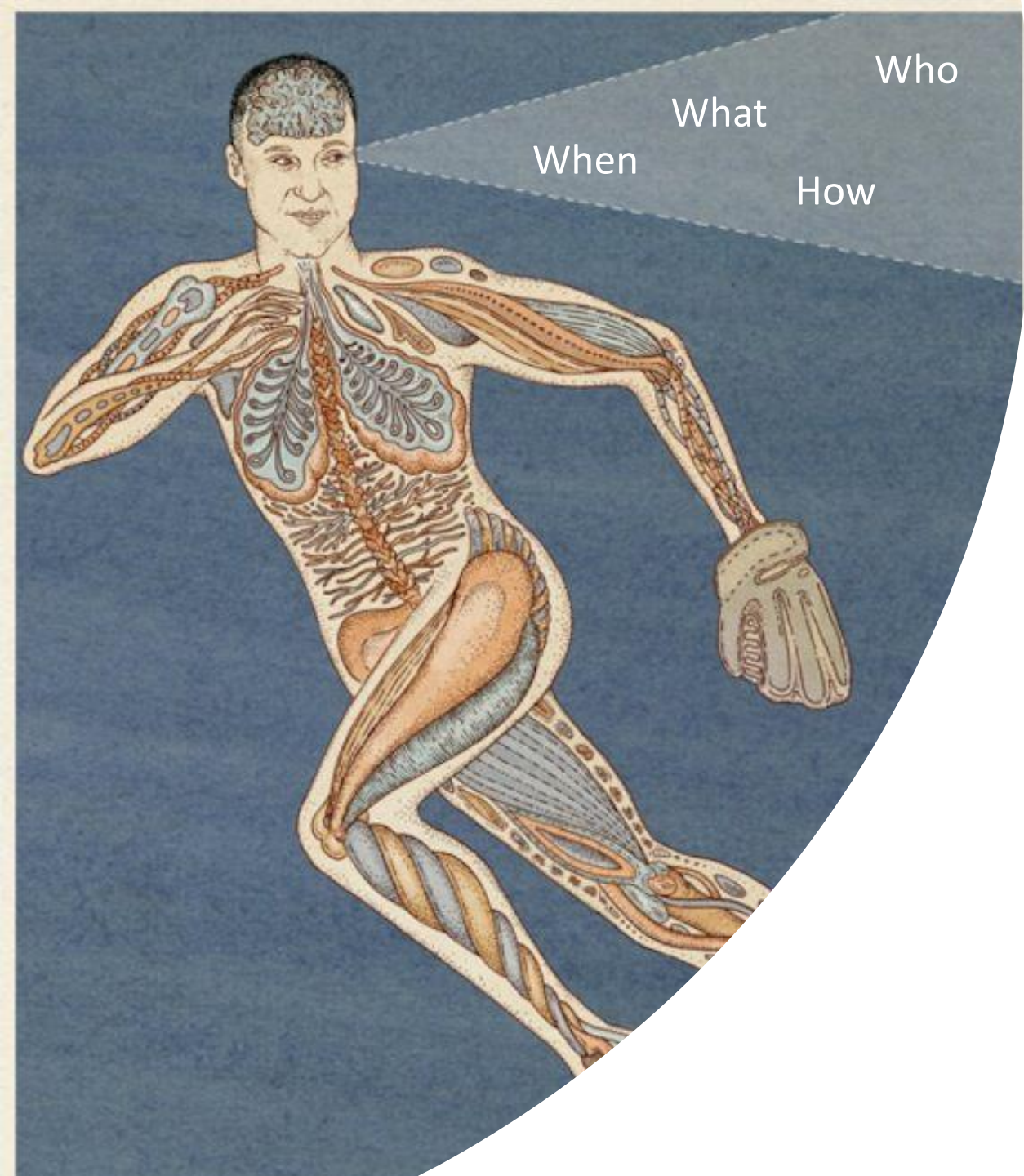


The background features a collage of hand-related illustrations. On the left, a large, faint, light-colored hand is shown with fingers spread. In the center, there is a colorful, stylized illustration of a hand or glove with intricate patterns in blue, yellow, and red. To the right, a detailed, shaded drawing of a human hand is shown with fingers slightly curled. At the bottom center, there is a circular, textured brown object, possibly a glove or a piece of fabric, with a green and white geometric pattern on its side.

Multidisciplinary Team

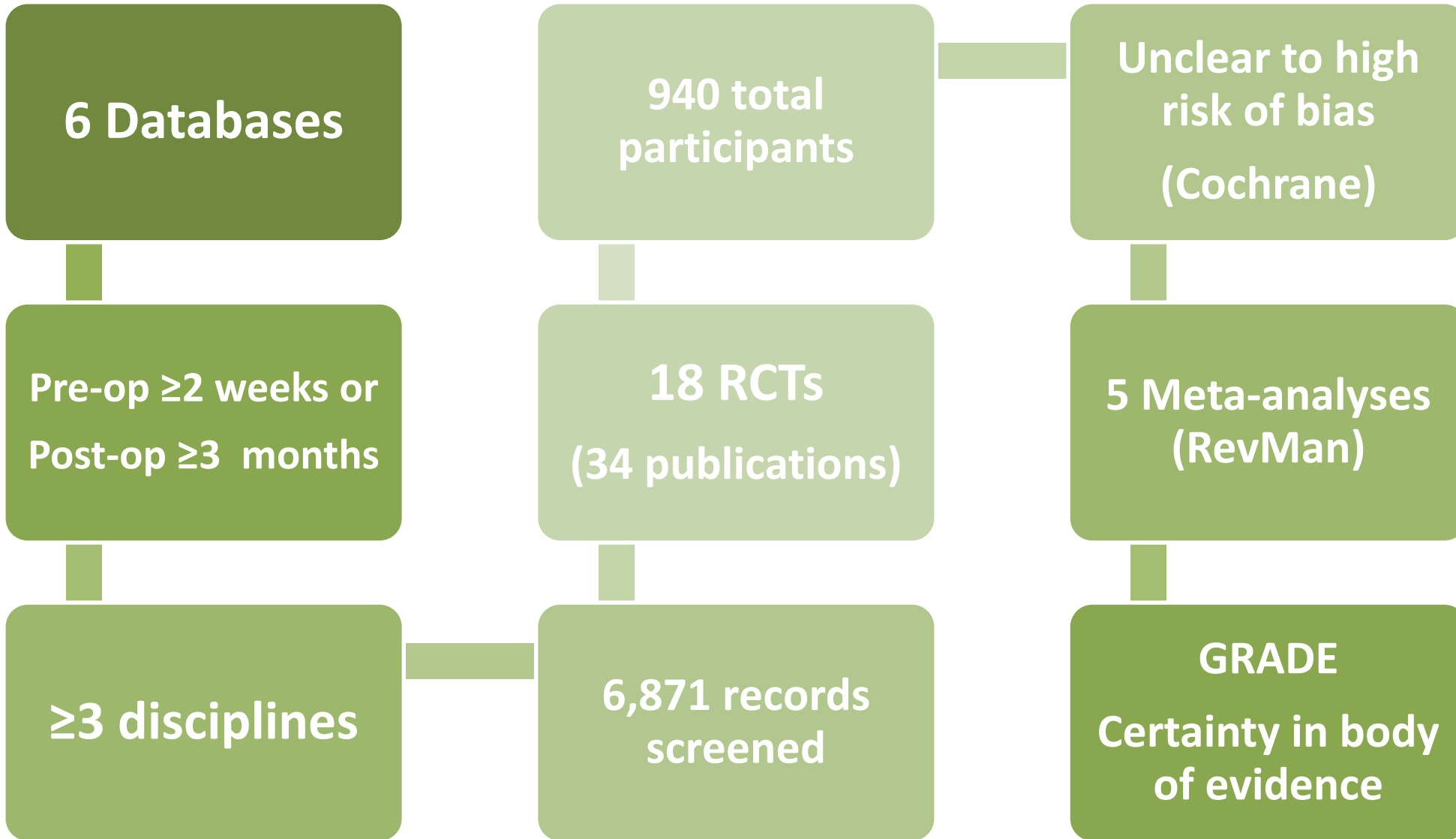
Different perspective
Coordinated expertise and skills
Sufficient patient engagement

- ❖ Pre-op: diet, psychosocial
- ❖ Post-op: follow-up: diet, exercise, behavioural



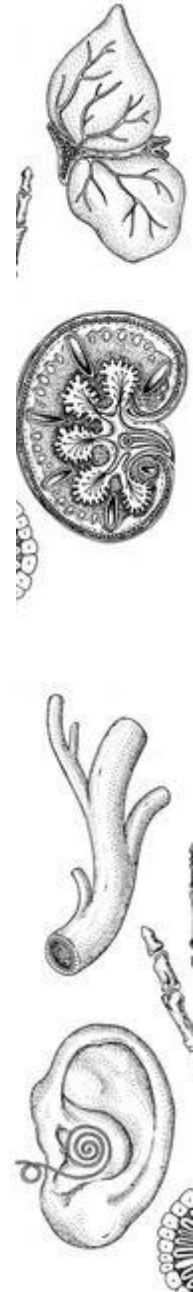
What is the effect of intensive versus standard pre- and/or postoperative MDT interventions on health-related outcomes post-surgery in adult bariatric patients?

SLR Methods & Findings



MDT characteristics

	Lifestyle & nutrition interventions n=4 studies	Psychology interventions n=5 studies	Physical focused interventions n=9 studies
<ul style="list-style-type: none"> Added a health discipline Increased intensity 	<ul style="list-style-type: none"> 100% 100% 	<ul style="list-style-type: none"> 100% 80% 	<ul style="list-style-type: none"> 100% 100%
Interventionists	<ul style="list-style-type: none"> 75% dietitian 25% surgeon 25% unclear 	<ul style="list-style-type: none"> 20% physiotherapist 80% psychologist 20% psychiatrist 20% therapist 	<ul style="list-style-type: none"> 11% dietitian 33% physiotherapist 11% psychiatrist 44% exercise specialist 22% other
Content	Mostly counselling	Mostly CBT	Mostly supervised physical activity

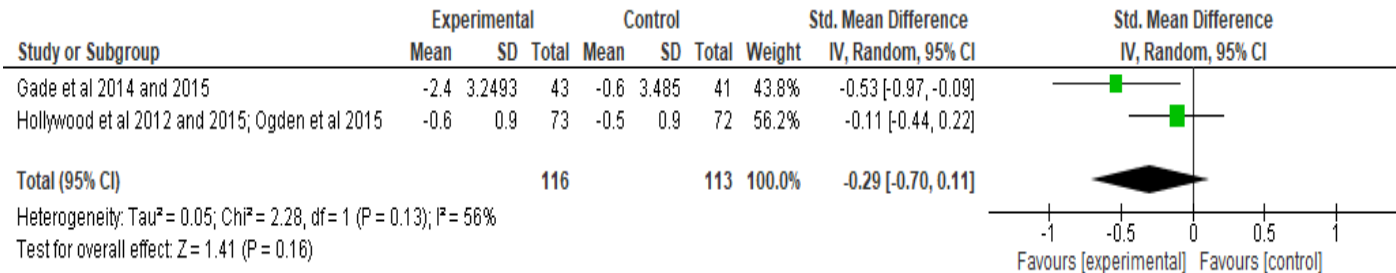


Implementation characteristics

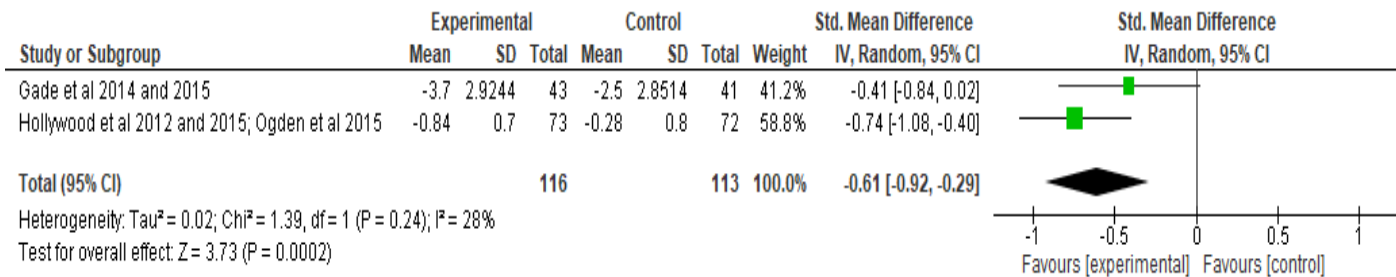
	Lifestyle & nutrition focused interventions n=4 studies	Psychology focused interventions n=5 studies	Physical activity focused interventions n=9 studies
<ul style="list-style-type: none"> • Pre-op • Post-op • Pre- and post-op 	<ul style="list-style-type: none"> • 2 (50%) • 2 (50%) • 0 	<ul style="list-style-type: none"> • 1 (20%) • 2 (40%) • 2 (40%) 	<ul style="list-style-type: none"> • 2 (22%) • 6 (67%) • 1 (11%)
Duration: <ul style="list-style-type: none"> • Pre-op • Post-op • Pre- and post-op 	<ul style="list-style-type: none"> • 6-months • 4 to 7.5-months • N/A 	<ul style="list-style-type: none"> • 2.5-months • 6 to 12-months • 3.5 to 13.5-months 	<ul style="list-style-type: none"> • 1.5 to 3-months • 3 to 6-months • 6.5-months



Anxiety & Depression

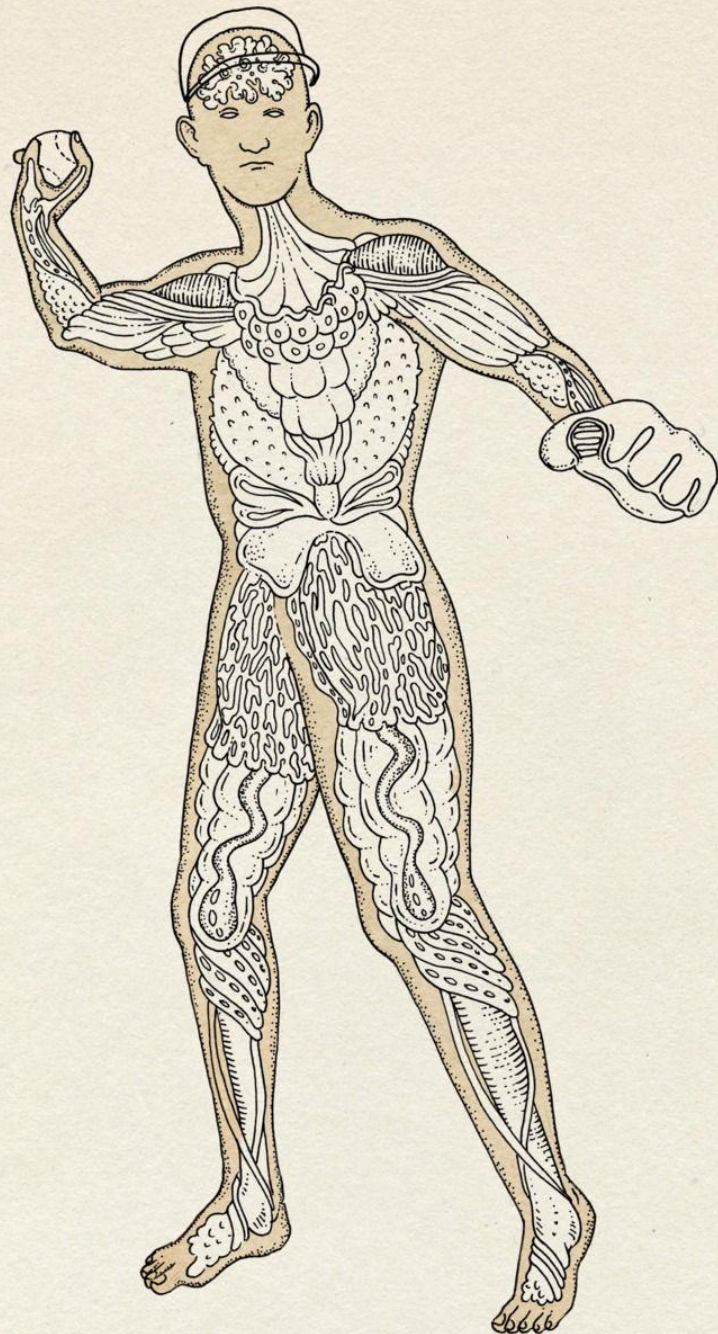


Psychological interventions had **no effect** on post-op anxiety
(SMD: -0.29 [95%CI: -0.70, 0.11] p=0.16; moderate heterogeneity; GRADE: Very low)

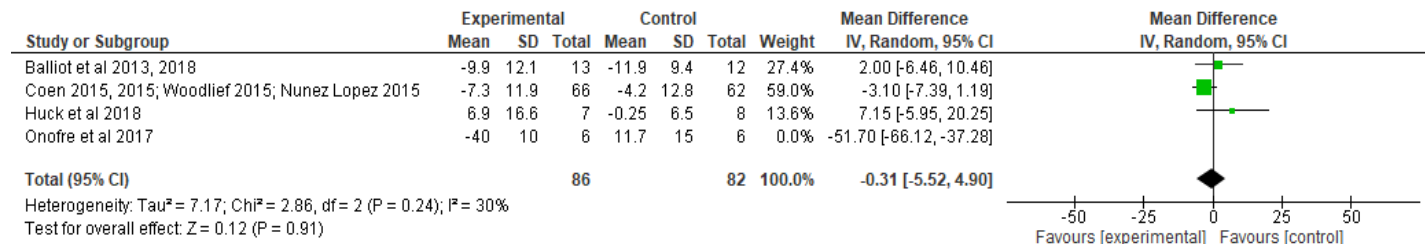


Psychological interventions **decreased depression** symptom scores
(SMD: -0.61 [95%CI: -0.92, -0.29]; p=0.0002; low heterogeneity; GRADE: Very low)

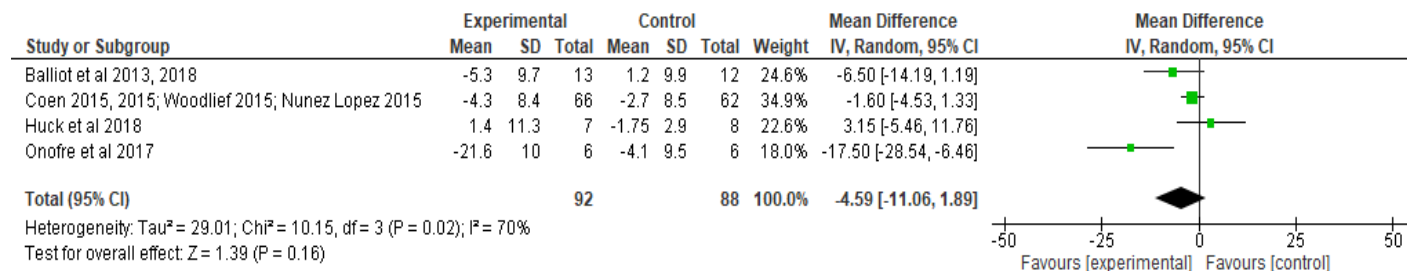




Blood pressure

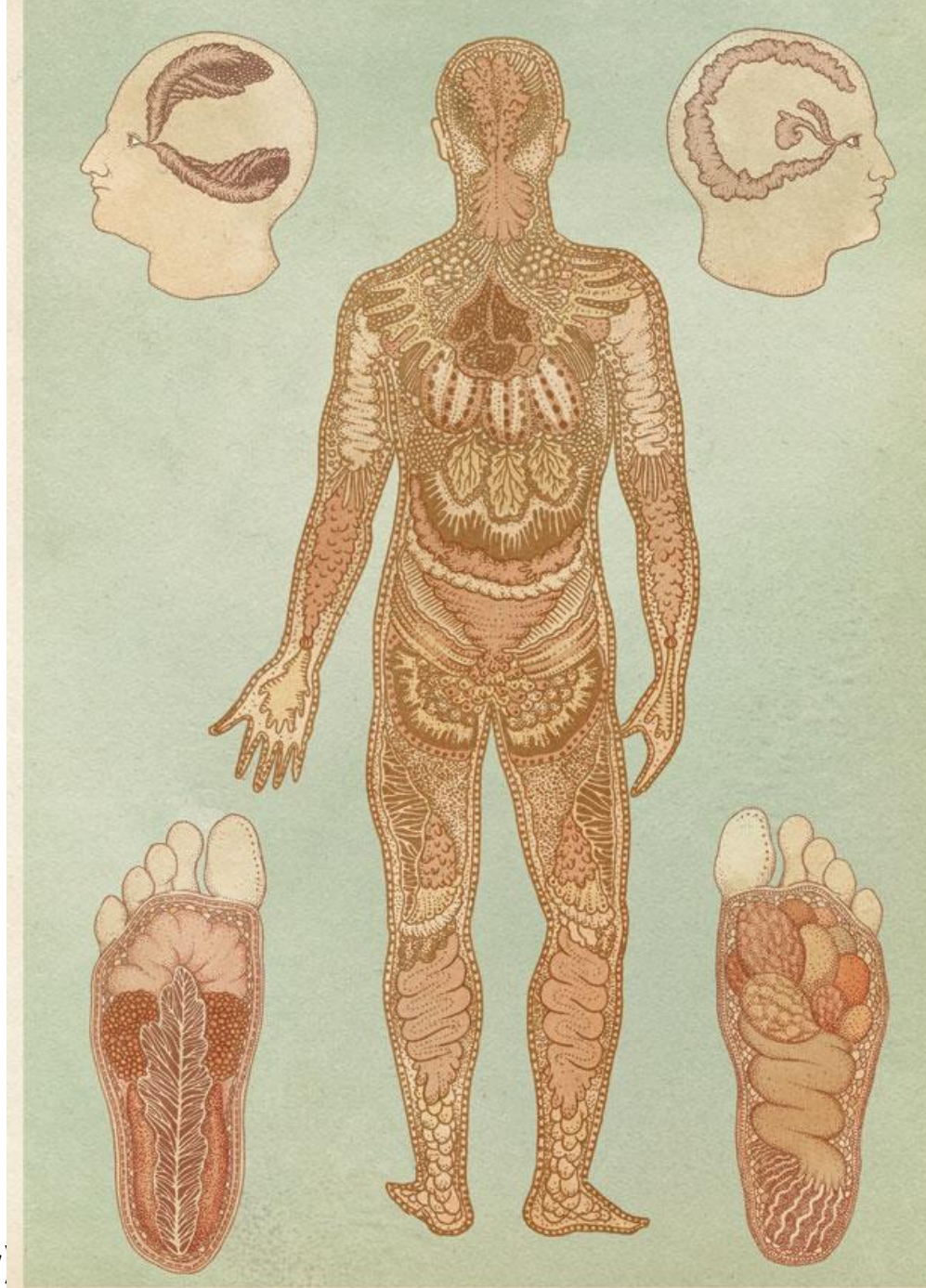
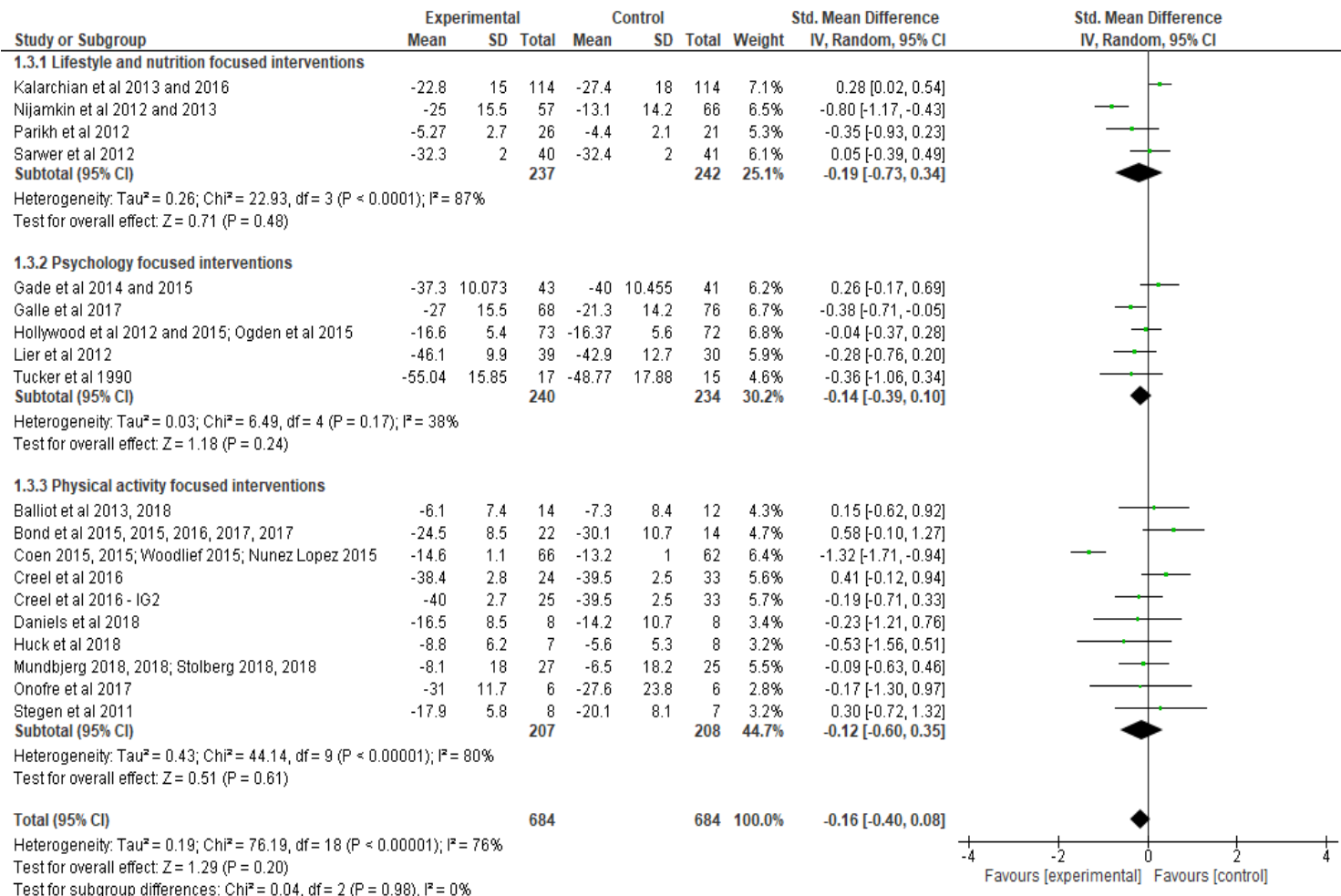


MDT interventions had **no effect** on post-op systolic blood pressure
 (MD: -0.31 [95%CI: -5.52, 4.90] p=0.91; low heterogeneity; GRADE: Very low)



MDT interventions **no effect** diastolic blood pressure
 (SMD: -4.59 [95%CI: -11.06, 1.89]; p=0.16; high heterogeneity; GRADE: Very low)

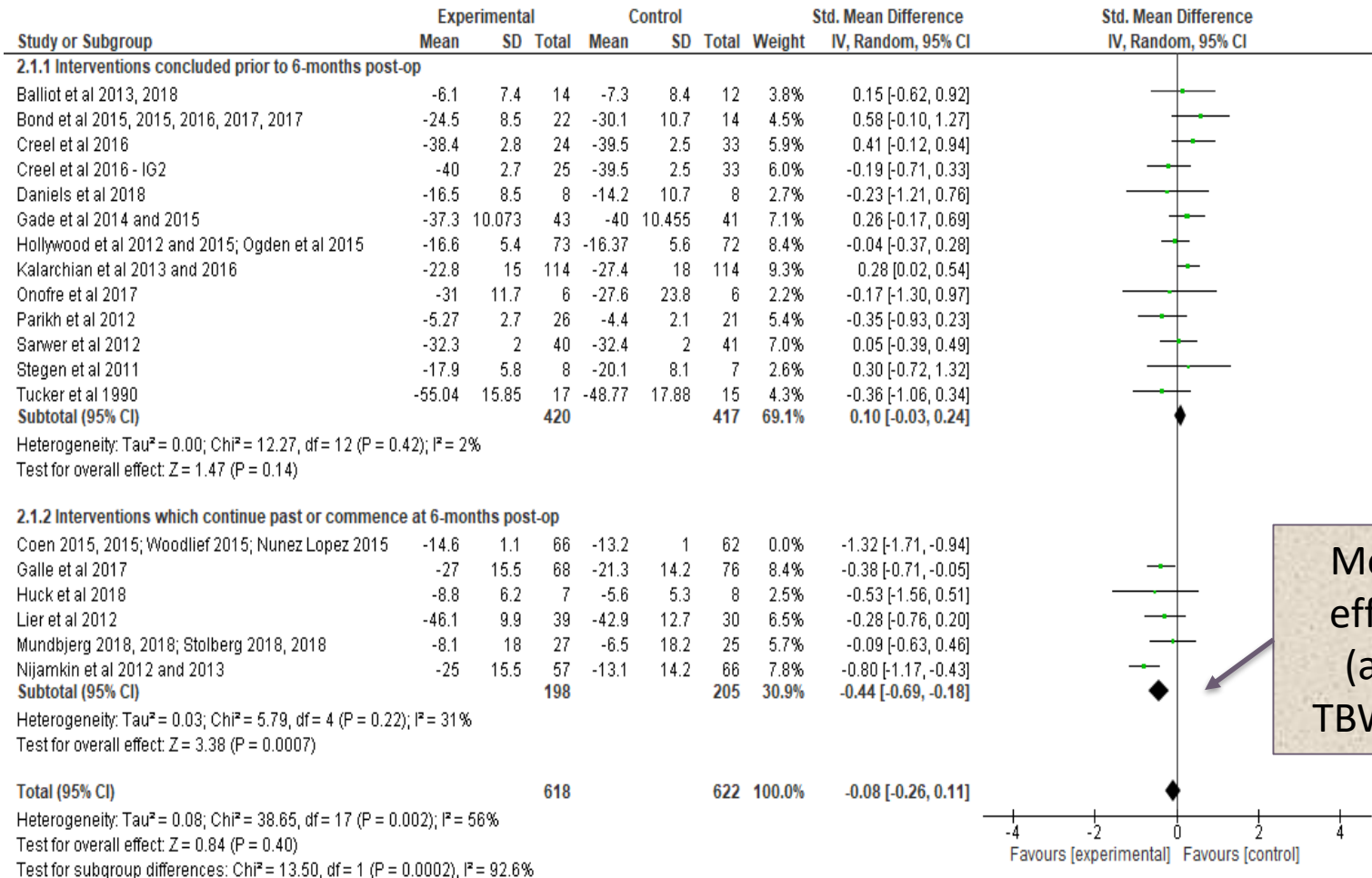
Weight loss by MDT type



There is **no effect** of any MDT-type on weight loss

(SMD: -0.16 [95%CI: -0.40, 0.08]; p=0.20; high heterogeneity; GRADE: very low)

Weight loss by time of delivery



MDT interventions which continued past or commenced at 6-months post-op **increased weight loss**
 (SMD: -0.44 [95%CI: -0.18, -0.69]; p=0.0007; moderate heterogeneity; GRADE: low)

Findings

When

Basic MDT support pre- and post-op
+ intensive MDT ≥ 3 -months commencing 6-
months post-op

What

Lifestyle or diet counseling, supervised
exercise, and/or cognitive behavioral therapy

Who

Any allied health + usual MDT

How

In-person or telehealth

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