

A pilot study investigating the dietetic weight loss interventions and 12 month functional outcomes of patients undergoing total joint replacement

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Background:

- Despite poorer outcomes, numbers of obese patients undergoing hip and knee arthroplasty surgery are increasing.
- This pilot randomised control study investigated the effect of a weight loss intervention to a group receiving usual care on 12-month clinical outcomes.
- We hypothesized the intervention group would achieve weight loss resulting in positive outcomes on pain and function.

Patient Baseline Demographics	Intervention Group	Usual Care Group
Variable	n=22	n=18
Age	62 (8) mean/(std. dev)	65 (6) mean/(std. dev)
Female: Male	11:11	11:09
Comorbidity Index	1.6 (1.7)	1.8 (2.1)
BMI (kg/m ²)	37 (6)	36 (5)
Weight (kg)	100.7 (13.6)	100.5 (16)

Results:

- At 12 months, the intervention group showed significant improvements in weight related measurements compared to the control group

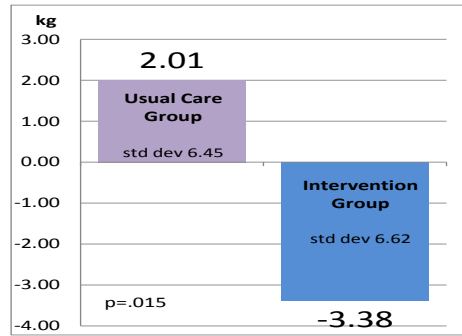


Fig. 1 Weight (kg) changes at 12 months

- Physical health scores were significantly better for the intervention group compared to the usual care group, [42.2 (11.80); 32.86 (9.91), p=0.014].

Model of Care:

	Intervention Group	Usual Care Group
Preadmission Clinic	Surgeon, OT, Physiotherapist, Dietitian	Surgeon, Physiotherapist, OT
6 weeks	Surgeon, Dietitian	Surgeon
3 months		Physiotherapist
6 months	Physiotherapist, Dietitian	Physiotherapist
9 months	Physiotherapist, Dietitian	Physiotherapist
12 months	Physiotherapist, Dietitian	Physiotherapist

- This study demonstrated that a structured dietitian-led weight loss intervention in patients undergoing total hip or total knee replacement achieved weight loss resulting in positive outcomes on pain and function
- Dietitians are an effective allied health member of the multidisciplinary joint replacement model of care.