Weight-related quality of life changes 6-months following Laparoscopic Sleeve Gastrectomy or Endoscopic Sleeve Gastroplasty

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Title

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Abstract

Background: Improvement in quality of life is an important patient-centred outcome of bariatric procedures.

Objectives: To report the change in weight-related quality of life 6-months after a laparoscopic sleeve gastrectomy (LSG) or endoscopic sleeve gastroplasty (ESG).

Methods: Adult patients were recruited prospectively over 12-months from Weight Loss Solutions Australia and followed from baseline to 6-months post-procedure. Quality of life was measured by the Impact of Weight on Quality of Life Assessment Tool (IWQOL-Lite) which assess overall quality of life and five sub-categories of: physical function, self-esteem, sexual life, public distress, work (or daily activities). All IWQOL scores were normalised to a scale of 0 (worst) to 100 (best) quality of life. Paired and independent t-tests were used to compare scores from baseline to follow-up and change over time between groups respectively.

Results: At baseline, LSG (mean score 42.6(11.6)) and ESG (mean score 60.0(75.5)) had "severe" impacts on QoL; where LSG participants (n=12, age 37.5(6.7) years, BMI 41.9(6.2)kg/m^2, 92% female) had a lower QoL compared to ESG participants (n=6, age 35.0(8.4) years, BMI 37.1 (5.7)kg/m^2, 83% female) (p=0.027). At follow-up, LSG had a greater improvement in QoL compared to ESG (mean change 38.8(19.8) p<0.0001 vs 15.6(21.9) p=0.142); however, this resulted in similar QoL in both groups 6-months post-procedure (p=0.131). The greater improvement in LSG compared to ESG was driven by self-esteem (mean difference 36.6 [95%CI:10.8,62.4) p=0.008) and sexual life (mean difference 45.7 [95%CI:17.8,73.5] p=0.003) domains.

Conclusion: Participants who seek the LSG and ESG in Queensland have severe weight-related impacts on their quality of life; however, LSG patients have higher BMIs and worse QoL. Both LSG and ESG participants experience improvements in QoL; however, the LSG participants experienced a greater improvement compared to ESG to achieve similar levels of weight-related QoL 6-months post-procedure.

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Conflict of interest

Yes

Conflict details

FC, GR, AS, and JJ are involved in the provision of services to the recruited participants. FC is a co-funder of the ENvISaGE Study through an Innovation Connections Grant.

Previously presented

None.

Table 1: Baseline characteristics of ESG and matched LSG patients in Queensland, Australia

Variable	ESG (n=6)			LSG (n=12)			Between groups		
	Baseline[a]	Followup[a]	Change[a]	Baseline[a]	Followup[a]	Change[a]	Baseline[b]	Followup[b]	Change[b]
BMI[a]									
Weight-related physical function[ac]	54.2 (24.1)	84.5 (14.0)	**-30.3 (29) p=0.051**	47.8 (18.5)	86.2 (10.6)	**-38.5 (20.7) p<0.0001**	6.4 (-15.4, 28.2) p=0.540	-1.7 (-14.2, 10.8) p=0.776	-8.1 (-33.2, 16.9) p=0.501
Weight-related self-esteem[c]	41.7 (28.8)	58.9 (24.5)	-17.3 (25.1) p=0.153	17.6 (13.5)	71.4 (16.5)	**-53.9 (24.0) p<0.0001**	**24.1 (3.5, 44.7) p=0.024**	-12.5 (-33.1, 8.1) p=0.216	**-36.6 (-62.4, -10.8) p=0.008**
Weight-related sexual life[c]	74.0 (27.5)	63.5 (25.7)	10.4 (12.3) p=0.093	49.9 (23.7)	79.2 (14.7)	**-35.2 (30.6) p=0.002**	**30.0 (3.5, 56.5) p=0.029**	-15.6 (-35.6, 4.3) p=0.117	**-45.7 (-73.5, -17.8) p=0.003**
Weight-related public distress[c]	74.2 (17.4)	82.5 (16.0)	-8.3 (25.8) p=0.465	47.9 (27.3)	82.1 (22.4)	**-34.2 (28.0) p=0.001**	**26.2 (0.2, 52.3) p=0.049**	0.4 (-21.5, 22.2) p=0.968	-25.8 (-54.8, 3.1) p=0.077
Weight-related work[c]	76.0 (9.2)	83.3 (19.2)	-7.3 (24.2) p=0.493	64.6 (20.2)	87.0 (18.0)	**-22.4 (22.5) p=0.005**	11.5 (-7.0, 30.0) p=0.209	-3.6 (-23.1, 15.8) p=0.697	-15.1 (-39.5, 9.3) p=0.209
Total weight-related quality of life[c]	60.0 (18.8)	75.5 (15.1)	-15.6 p=0.142	42.6 (11.6)	81.4 (12.1)	**-38.8 (19.8) p<0.0001**	**17.4 (2.2, 32.5) p=0.027**	-5.8 (-19.8, 8.1) p=0.386	-17.3 (-40.3, 5.7) p=0.131

a. Data presented mean (standard deviation)
b. Data presented mean difference (95%CI)
c. Values normalized to a scale of 0 (worst quality of life) to 100 (best quality of life).