Alterations in food reward regarding bariatric surgery type and weight loss outcomes: an exploratory study.

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Table S1 : Relationship between liking and wanting for foods and bariatric surgery type.

Table S2 : Socioeconomic and behavioral characteristics by Total Weight Loss tercile.

Table S1 : Relationship between liking and wanting for foods and bariatric surgery type

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | | SG  n = 30 | | RYGB  n = 26 | | Student-t test  p value | |
| **Explicit liking** | |  | |  | |  | |
| High carb – Solid | | 27.4 ± 22.1 | | 24.9 ± 24.3 | | 0.69 | |
| High carb – Fluid | | 28.2 ± 20.4 | | 21.9 ± 21.4 | | 0.27 | |
| Low carb – Solid | | 34.5 ± 28.2 | | 26.0 ± 24.0 | | 0.24 | |
| Low carb – Fluid | | 22.9 ± 23.4 | | 26.2 ± 25.9 | | 0.61 | |
| Dairy – Color | | 23.9 ± 19.1 | | 21.8 ± 25.9 | | 0.69 | |
| Dairy – No color | | 29.8 ± 21.1 | | 26.0 ± 26.9 | | 0.56 | |
| Nondairy – Color | | 26.5 ± 24.7 | | 14.8 ± 15.7 | | **0.04** | |
| Nondairy – No color | | 28.3 ± 23.5 | | 18.5 ± 16.7 | | 0.09 | |
| High fat – Savory | | 31.6 ± 29.0 | | 21.6 ± 21.5 | | 0.15 | |
| High fat – Sweet | | 26.4 ± 24.2 | | 23.2 ± 26.3 | | 0.64 | |
| Low fat – Savory | | 21.3 ± 20.7 | | 16.4 ± 17.8 | | 0.36 | |
| Low fat – Sweet | | 31.7 ± 24.1 | | 24.5 ± 23.8 | | 0.27 | |
| Fiber – Sauce | | 32.5 ± 26.0 | | 25.3 ± 20.9 | | 0.27 | |
| Fiber – No sauce | | 27.1 ± 24.0 | | 24.5 ± 20.5 | | 0.66 | |
| No fiber – Sauce | | 29.8 ± 23.8 | | 25.9 ± 24.8 | | 0.55 | |
| No fiber – No sauce | | 32.9 ± 24.0 | | 29.7 ± 27.6 | | 0.64 | |
| Meat – High fat | | 30.7 ± 29.3 | | 26.8 ± 26.0 | | 0.60 | |
| Meat – Low fat | | 31.1 ± 29.9 | | 31.5 ± 30.2 | | 0.96 | |
| No meat – High fat | | 30.4 ± 28.5 | | 25.1 ± 22.2 | | 0.44 | |
| No meat – Low fat | | 24.8 ± 22.2 | | 22.2 ± 20.1 | | 0.64 | |
| High protein – Variation | | 32.8 ± 27.1 | | 25.9 ± 24.3 | | 0.32 | |
| High protein – No variation | | 34.7 ± 29.5 | | 30.6 ± 28.6 | | 0.60 | |
| Low protein – Variation | | 32.4 ± 23.3 | | 27.3 ± 21.5 | | 0.41 | |
| Low protein – No variation | | 31.0 ± 20.7 | | 31.4 ± 26.5 | | 0.95 | |
| **Explicit wanting** | |  | |  | |  | |
| High carb – Solid | | 25.4 ± 23.2 | | 23.2 ± 23.5 | | 0.72 | |
| High carb – Fluid | | 25.5 ± 19.3 | | 19.2 ± 20.5 | | 0.24 | |
| Low carb – Solid | | 32.3 ± 28.3 | | 23.6 ± 23.4 | | 0.22 | |
| Low carb – Fluid | | 22.6 ± 23.3 | | 24.1 ± 26.2 | | 0.82 | |
| Dairy – Color | | 21.9 ± 20.2 | | 20.4 ± 25.4 | | 0.81 | |
| Dairy – No color | | 28.6 ± 21.8 | | 25.1 ± 25.7 | | 0.59 | |
| Nondairy – Color | | 23.2 ± 23.4 | | 15.7 ± 18.8 | | 0.20 | |
| Nondairy – No color | | 26.7 ± 24.6 | | 17.5 ± 16.6 | | 0.12 | |
| High fat – Savory | | 29.8 ± 28.8 | | 20.4 ± 21.1 | | 0.17 | |
| High fat – Sweet | | 23.5 ± 24.6 | | 20.4 ± 23.3 | | 0.64 | |
| Low fat – Savory | | 19.4 ± 20.6 | | 16.5 ± 17.4 | | 0.58 | |
| Low fat – Sweet | | 30.6 ± 24.7 | | 24.5 ± 23.2 | | 0.35 | |
| Fiber – Sauce | | 32.4 ± 27.3 | | 25.6 ± 22.6 | | 0.32 | |
| Fiber – No sauce | | 25.9 ± 24.6 | | 22.0 ± 19.4 | | 0.53 | |
| No fiber – Sauce | | 28.1 ± 24.5 | | 25.5 ± 23.1 | | 0.69 | |
| No fiber – No sauce | | 32.3 ± 24.9 | | 29.6 ± 26.6 | | 0.70 | |
| Meat – High fat | | 27.6 ± 28.2 | | 26.4 ± 25.0 | | 0.86 | |
| Meat – Low fat | | 29.1 ± 29.8 | | 31.6 ± 32.1 | | 0.77 | |
| No meat – High fat | | 30.0 ± 27.3 | | 22.6 ± 20.5 | | 0.27 | |
| No meat – Low fat | | 23.2 ± 22.0 | | 20.4 ± 19.1 | | 0.62 | |
| High protein – Variation | | 31.6 ± 28.7 | | 26.8 ± 26.8 | | 0.52 | |
| High protein – No variation | | 33.5 ± 30.7 | | 30.5 ± 31.1 | | 0.21 | |
| Low protein – Variation | | 32.3 ± 25.8 | | 24.5 ± 19.9 | | 0.72 | |
| Low protein – No variation | | 33.0 ± 24.9 | | 29.1 ± 26.0 | | 0.57 | |
| **Implicit wanting** | |  | |  | |  | |
| High carb – Solid | | -0.4 ± 27.5 | | -4.9 ± 26.8 | | 0.54 | |
| High carb – Fluid | | -4.5 ± 17.7 | | -8.1 ± 23.4 | | 0.51 | |
| Low carb – Solid | | 24.4 ± 25.9 | | 15.3 ± 28.8 | | 0.22 | |
| Low carb – Fluid | | -19.5 ± 32.0 | | -2.3 ± 32.8 | | 0.05 | |
| Dairy – Color | | -5.1 ± 26.0 | | -4.0 ± 27.7 | | 0.88 | |
| Dairy – No color | | 20.4 ± 25.8 | | 28.3 ± 21.5 | | 0.23 | |
| Nondairy – Color | | -17.0 ± 23.7 | | -27.6 ± 21.7 | | 0.09 | |
| Nondairy – No color | | 1.6 ± 24.7 | | 3.3 ± 31.6 | | 0.83 | |
| High fat – Savory | | 10.0 ± 27.6 | | 6.8 ± 22.4 | | 0.66 | |
| High fat – Sweet | | -3.1 ± 24.1 | | -5.9 ± 26.9 | | 0.69 | |
| Low fat – Savory | | -18.2 ± 29.3 | | -12.6 ± 33.8 | | 0.51 | |
| Low fat – Sweet | | 11.2 ± 20.5 | | 6.0 ± 22.8 | | 0.38 | |
| Fiber – Sauce | | 0.3 ± 22.8 | | 1.1 ± 18.1 | | 0.88 | |
| Fiber – No sauce | | -11.6 ± 26.4 | | -11.6 ± 22.0 | | 0.10 | |
| No fiber – Sauce | | -1.9 ± 17.2 | | -4.6 ± 22.8 | | 0.62 | |
| No fiber – No sauce | | 12.7 ± 21.4 | | 15.1 ± 18.4 | | 0.67 | |
| Meat – High fat | | 10.5 ± 19.6 | | 4.1 ± 19.8 | | 0.23 | |
| Meat – Low fat | | 5.8 ± 22.7 | | 11.0 ± 17.7 | | 0.35 | |
| No meat – High fat | | 2.1 ± 24.8 | | -2.9 ± 19.4 | | 0.41 | |
| No meat – Low fat | | -18.4 ± 26.5 | | -8.1 ± 29.9 | | 0.18 | |
| High protein – Variation | | -2.9 ± 26.8 | | -1.3 ± 19.3 | | 0.79 | |
| High protein – No variation | | 14.6 ± 25.1 | | 7.9 ± 17.1 | | 0.26 | |
| Low protein – Variation | | -9.5 ± 20.7 | | -5.0 ± 13.4 | | 0.34 | |
| Low protein – No variation | | -2.2 ± 23.8 | | -1.6 ± 16.5 | | 0.92 | |

SG : Sleeve gastrectomy; RYGB : Roux en Y gastric bypass; results are expressed in mean ± SD

Table S2 : Socioeconomic and behavioral characteristics by Total Weight Loss tercile

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Low reponders  < 33% | Middle responders  33 – 66% | Good responders  > 66% | p-value |
|  | n = 18 | n= 19 | n = 19 |
| Sociodemographic data |  |  |  |  |
| Women (%) | 72.2 (n=13) | 78.9 (n=15) | 73.7(n=14) | 0.883 |
| Age (yr) | 47.2 (9.5) | 43.0 (11.0) | 41.8 (12.4) | 0.309 |
| Smoking status (%) | 0 (n=0) | 31.6 (n=6) | 26.3 (n=5) | 0.038 a |
| Food budget constraint (%) | 16.7 (n=3) | 21.1 (n=4) | 5.3 (n=1) | 0.364a |
| Follow up visit |  |  |  |  |
| 6-month | 27.8 (n=5) | 42.1 (n=8) | 36.8 (n=7) | 0.877 |
| 12-month | 33.3 (n=6) | 31.6 (n=6) | 26.3 (n=5) |  |
| 24-month | 38.9 (n=7) | 26.3 (n=5) | 36.8 (n=7) |  |
| Anthropometric data |  |  |  |  |
| BMI Before surgery(kg.m-²) | 42.5 (5.4) | 43.4 (5.8) | 44.8 (6.8) | 0.826 |
| Body weight (kg) | 95.4 (12.3) | 87.2 (14.9) | 81.2 (22.4) | 0.050 |
| BMI (kg.m-²) | 33.8 (3.7) | 31.2 (4.0) | 29.2 (4.6) | 0.005 |
| % TWL | 20.0 (4.4) | 27.7 (2.8) | 34.83 (4.9) | <0.001 |
| Appetite sensations |  |  |  |  |
| Mean hunger (mm) | 17.2 (24.9) | 15.4 (22.6) | 30.4 (28.1) | 0.149 |
| Mean fullness (mm) | 70.5 (31.7) | 69.7 (27.6) | 64.6 (25.7) | 0.791 |
| Mean desire to eat (mm) | 18.1 (22.4) | 20.2 (22.5) | 28.0 (29.0) | 0.444 |
| Time since last meal (min) | 117 (215) | 117 (180) | 168 (251) | 0.719 |

**Abbreviations: BMI: Body Mass Index; % TWL: Percentage of Total Weight Loss.** Data are presented as mean (SD). p values are for ANOVA results; a indicates that Kruskal-Wallis one-way analysis of variance was used.