**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

| | SG<br>n = 30 | RYGB<br>n = 26 | Student-t test<br>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 |

| | SG | RYGB | |
|---|---|---|---|
| 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% n = 18 | Middle responders 33 – 66% n= 19 | Good responders > 66% n = 19 | p-value |
|---|---|---|---|---|
| **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) | 0.364[a] |
| **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.