



Stepped care longitudinal support online program to prevent weight regain after bariatric surgery: study protocol and 6-months preliminary results

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Obesidade

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- Receipt of grants/research supports:

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- Receipt of honoraria or consultation fees:

Novo Nordisk-Portugal in 2023.

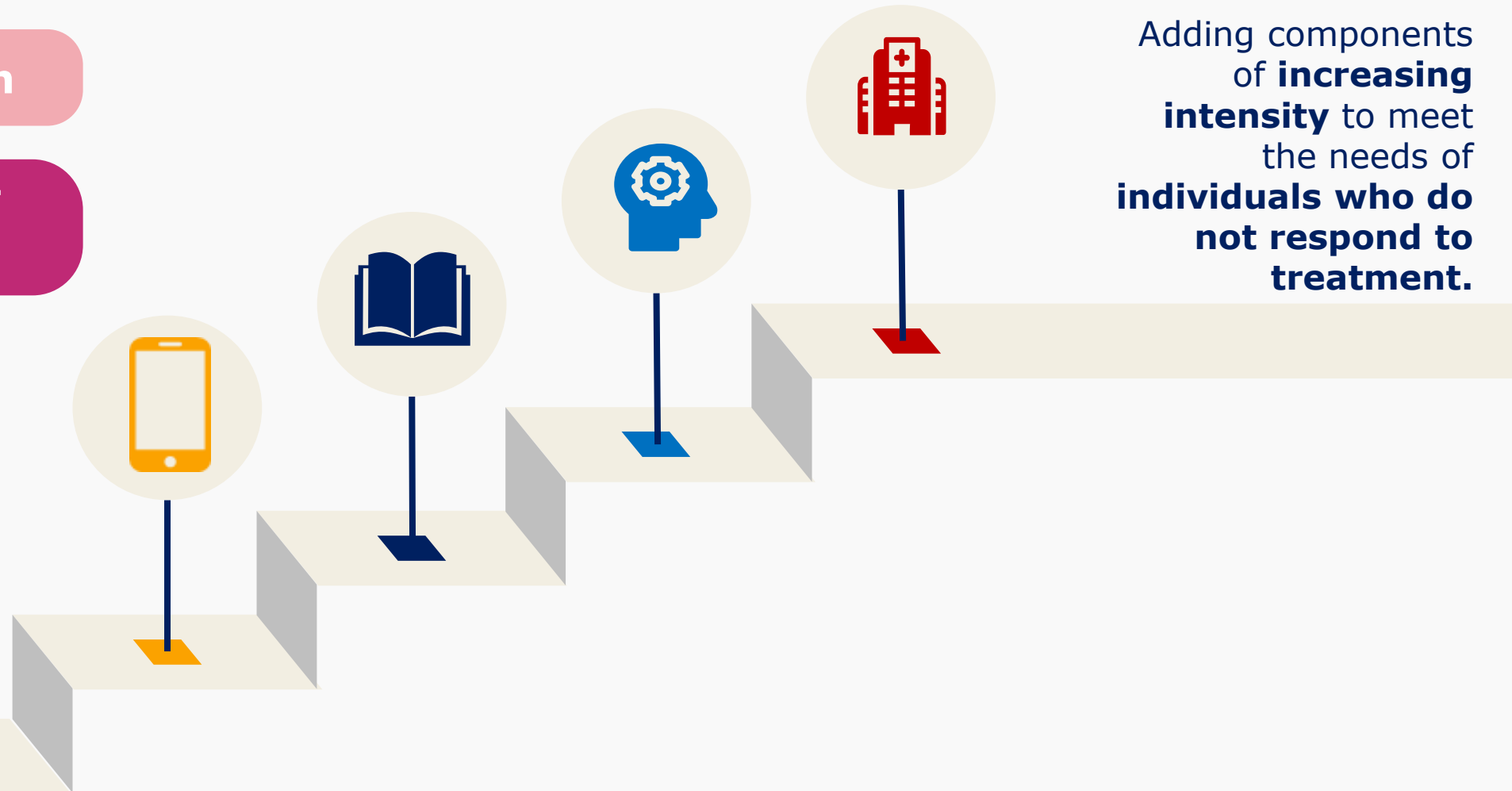
“Stepped Care” intervention models

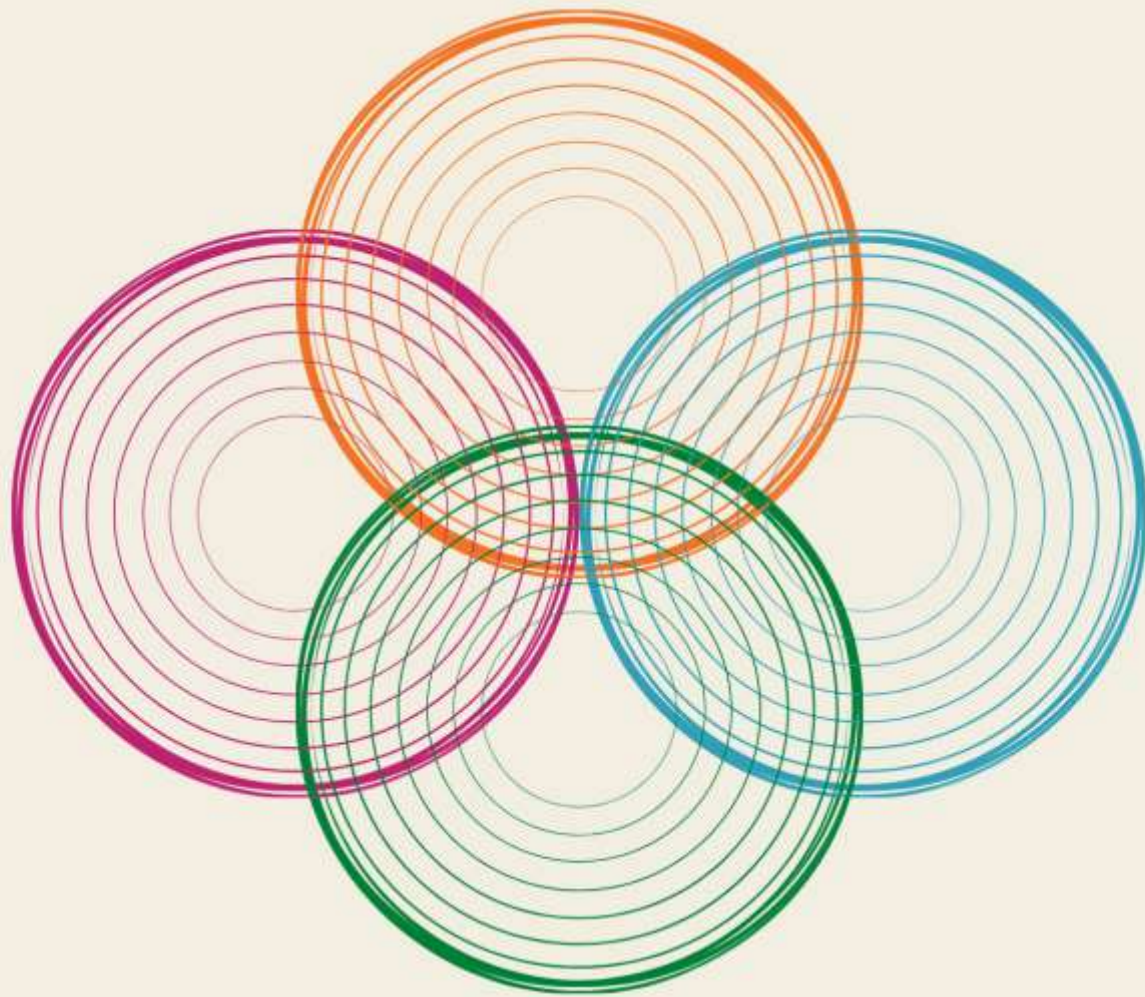
Personalized approach

Efficient allocation of resources

Adding components of **increasing intensity** to meet the needs of **individuals who do not respond to treatment.**

Minimal, low-intensity, and cost-effective intervention for **all patients**





APOLO *Bari*

ACOMPANHAMENTO LONGITUDINAL NA CIRURGIA
BARIÁTRICA

Longitudinal psychological support
program designed to optimize
weight loss and prevent weight
regain after bariatric surgery.

OBJECTIVE:

To test the efficacy of APOLO-Bari
delivered as a stepped care
intervention: **preliminar data**

RANDOMIZED CONTROLLED TRIAL

METHODS

INTERVENTION BASED IN 3 MAIN COMPONENTS



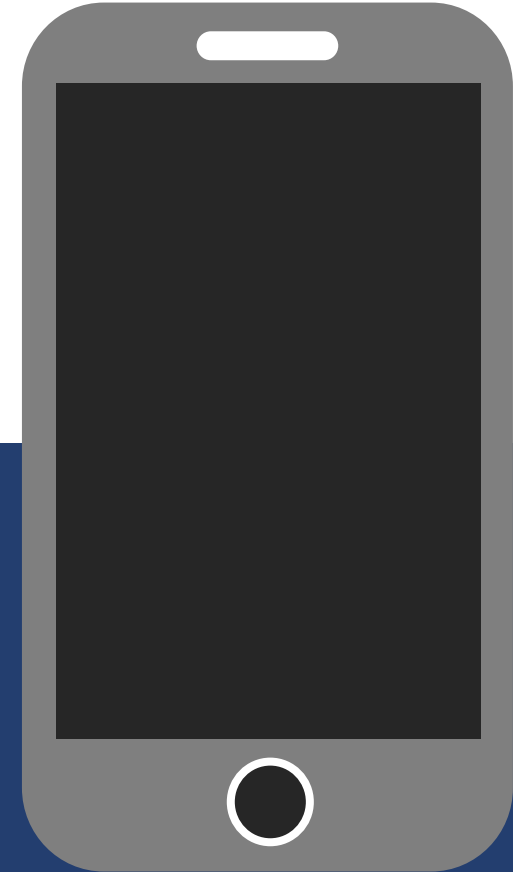
PRIVATE GROUP ON FACEBOOK®



**MONTHLY MONITORING SYSTEM WITH
FEEDBACK (MMQ)**



SELF-HELP MANUAL + FOLLOW-UP SESSION WITH A PSYCHOLOGIST



METHODS

Step III

Delivered to patients with installed eating psychopathology

- Step II plus:
- Biweekly follow-up sessions with a psychologist

Step II

Delivered to patients with risk eating behaviors

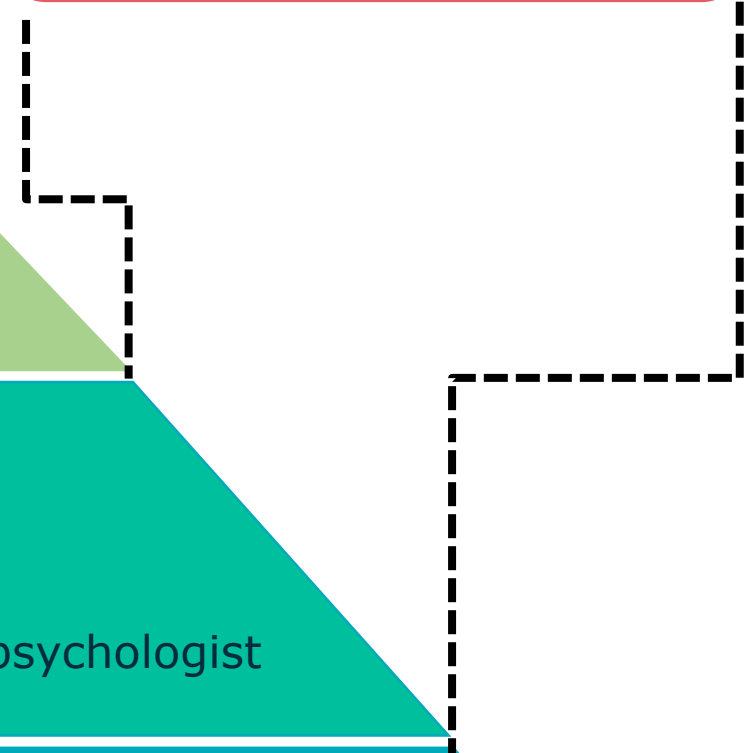
- Step I plus:
- Monthly follow-up sessions with a psychologist

Step I

Delivered to all patients

- Apolo-Bari Facebook®
- MMQ

Progression ALGORITHM



METHODS



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Recruitment



Randomization



Control Group
TAU

Intervention Group
TAU + Stepped-Care - **18 months**

T_b

T_{6m}

T_{12m}

T_f

T_{fu6m}

Repetitive Eating Questionnaire

Eating Disorder – 15

Three Factor Eating Questionnaire

Forms of Self-Criticizing and Reassuring Scale

Loss of Control Over Eating Scale_Brief

Difficulties in Emotion Regulation Scale

Negative Urgency Subscale

Depression Anxiety Stress Scales

INCLUSION CRITERIA:

- women aged between 18-65 years;
- underwent **Roux-en-Y Gastric Bypass or Gastric Sleeve for 12-18 months;**
- have a Facebook® account and regular internet access.

EXCLUSION CRITERIA:

- under weight-loss medications;
- acute psychiatric or medical problems;
- pregnancy or lactation;
- illiteracy;
- increase from > 10 kg from nadir on baseline assessment.

RESULTS

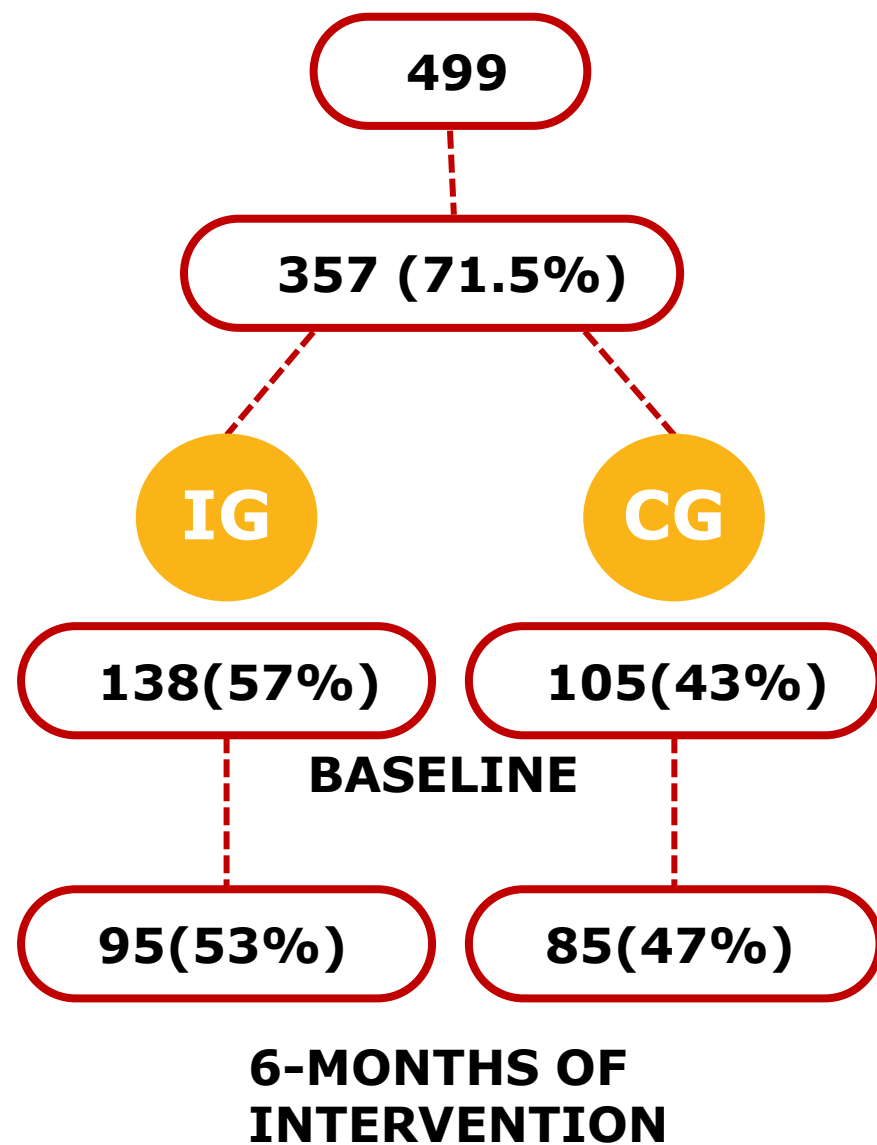


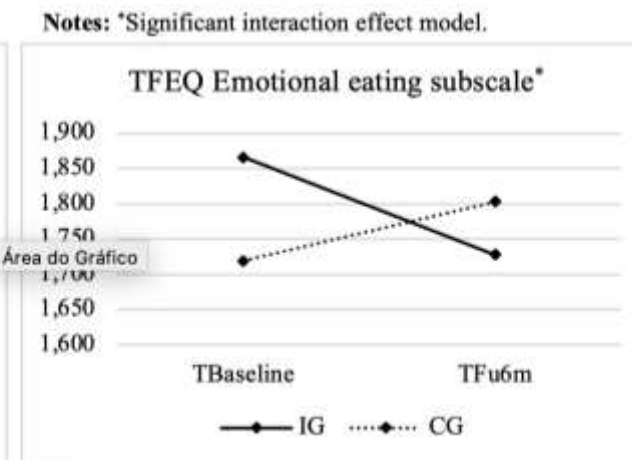
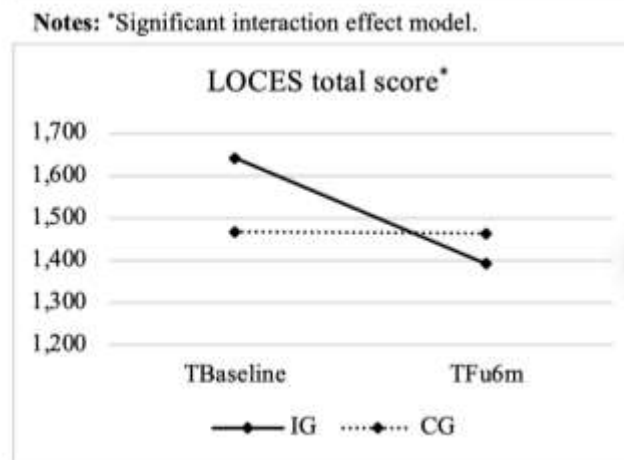
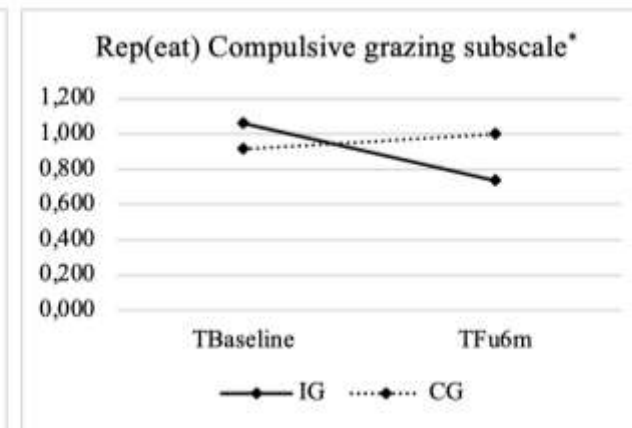
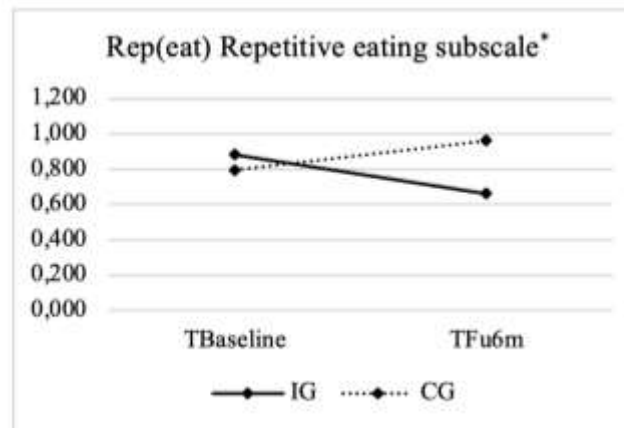
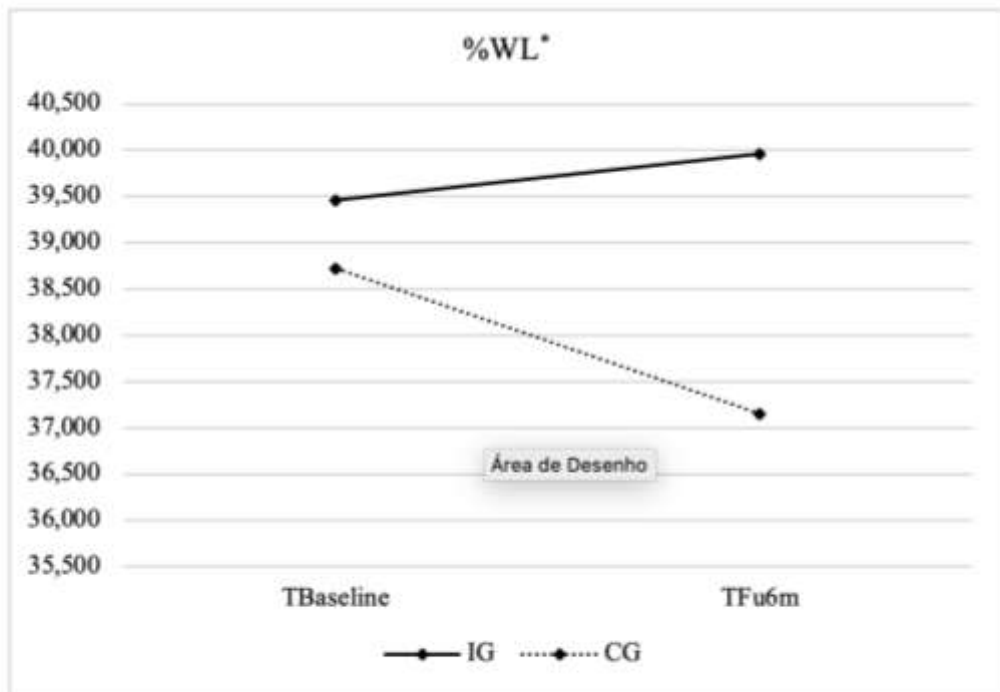
Table 1. Demographic and anthropometric characteristics of participants at baseline assessment.

	Intervention group (IG) (n=137) n%; M(SD)	Control group (CG) (n=105) n%; M(SD)	Statistical test value
Age (years)	43.87 (8.93) (Min.=22; Max. = 64)	46.58(10.28) (Min.=23; Max. = 64)	5829 ^{a**}
Marital status			.88 ^b
Single	22 (16.1%)	18 (17.1%)	
Married/live with partner	96 (70.1%)	69 (65.7%)	
Divorced/separated	16 (11.7%)	14 (13.3%)	
Widowed	3 (2.2%)	4 (3.8%)	3.13 ^b
Educational level			
High school (9–12 years)	123 (89.8%)	86 (81.9%)	
Graduated level	11 (8%)	15 (14.3%)	
Post-graduated level	3 (2.2%)	4 (3.8%)	8.44 ^{b*}
Employment situation			
Employed	103 (75.2%)	62 (59.0%)	
Unemployed	21 (15.3%)	21 (20.0%)	
Domestic	8 (5.8%)	13 (12.4%)	1.30 ^b
Retired	5 (3.6%)	9 (8.6%)	
Type of surgery			
Gastric band	8 (5.8%)	4 (3.8%)	
Gastric sleeve	21 (15.3%)	21 (20.0%)	.80 ^b
Gastric bypass	108 (78.8%)	80 (76.2%)	
PRIM-REOP			
Primary	125 (91.2%)	99 (94.3%)	6694.50 ^a
Reoperative	12 (8.8%)	6 (5.7%)	
Weight-related variables			
%WL	39.37 (7.33) (Min.= 9.91; Max. = 62.93)	38.72 (8.20) (Min.= 19.31; Max. = 63.64)	
WR	.58 (1.26) (Min.= 0; Max. = 7)	1.69 (2.92) (Min.= 0; Max. = 10)	6542.50 ^a

Notes: Min – minimum; Max – maximum; ^a Mann–Whitney test value; ^b Chi-square test value; WR – Weight regain.

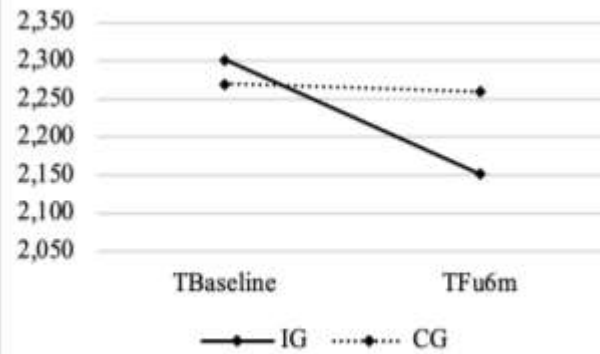
RESULTS

6 months intervention – 18-24 months after surgery

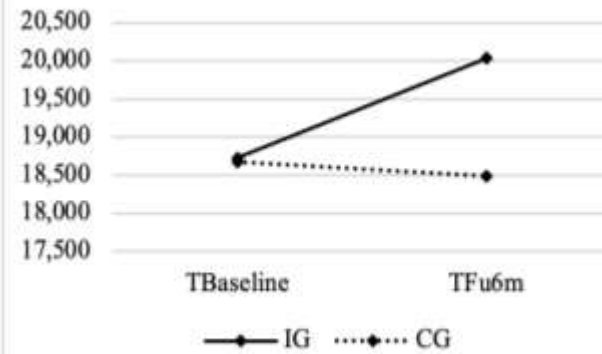


RESULTS

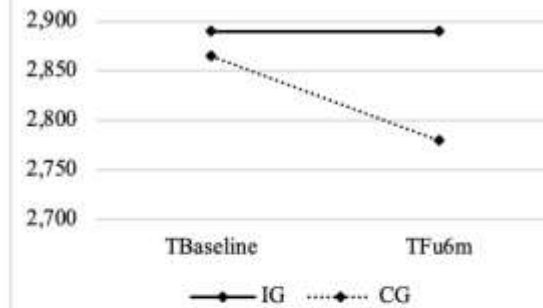
UPPS_negative urgency scale



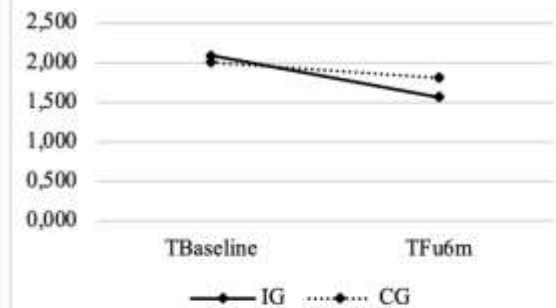
FSCRS Reassure-self subscale



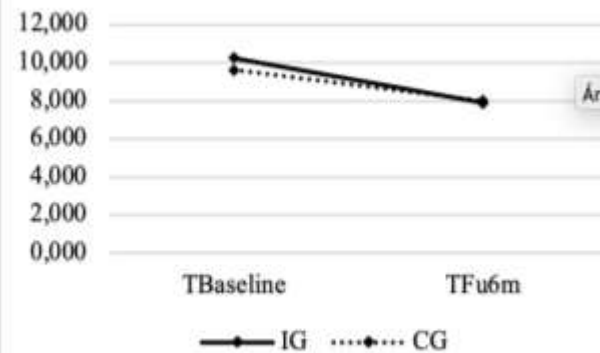
TFEQ Cognitive restraint subscale



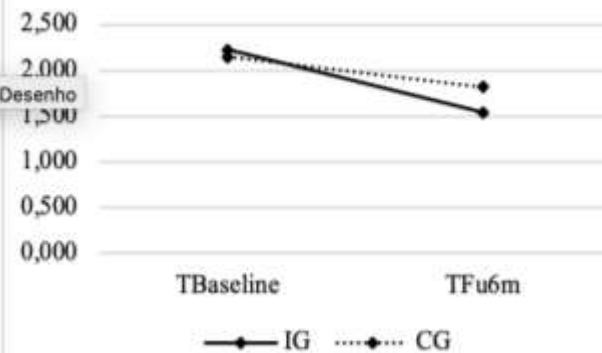
ED_10 Eating concern subscale



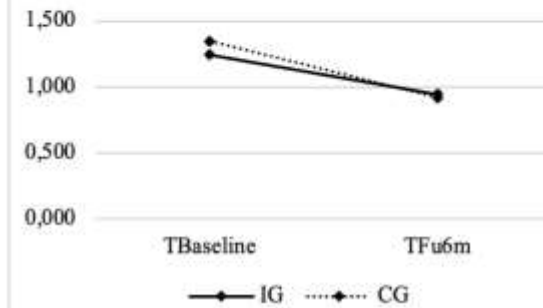
FSCRS Inadequate-self subscale



FSCRS Hated-self subscale



ED_10 Weight concern subscale



DISCUSSION

Overall, the APOLO_Bari stepped-care intervention produced preliminary improvements on weight loss and psychological factors in patients with about 24 months of surgery.

Longer-term follow-up are needed.

“Growth is never by mere chance. It is the result of forces working together.”

James Cash Penney



**MARTA DE
LOURDES**



**ANDREIRA
RIBEIRO**



**SÍLVIA
FÉLIX**

