

## Association between eating behavior, biochemical measurements, and ppy hormone levels in obese adolescents

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### Abstract:

Studying the different dimensions of eating behavior during lifestyle interventions can serve as a tool to identify causes of obesity and track treatment strategies for obese people.

**Objective:** To evaluate the eating behavior of obese adolescents and its association with biochemical, anthropometric and PYY measures.

**Methods:** 51 obese adolescents received counseling for weight management at 12 monthly appointments. Fasting serum PYY levels, total cholesterol (TC), high density lipoprotein cholesterol (HDL-C), triglycerides (TG), low density lipoprotein cholesterol (LDL-C), insulin and glucose levels, waist circumference (WC) and results from the Three-Factor Eating Questionnaire (TFEQ-21) were assessed.

**Results:** Over one year there was a significant increase in PYY levels ( $p = 0.026$ ); reduction in TC ( $p = 0.003$ ), TG ( $p = 0.022$ ), BMI ( $p = 0.002$ ), BMI z-score ( $p < 0.001$ ) and WC ( $p = 0.003$ ). There was a decrease in the Uncontrolled Eating score (UE), illustrating that adolescents displayed more self-control ( $p = 0.008$ ) at the end of the study. The reduction in UE was associated with a significant improvement in insulin levels ( $r_s = 0.326$ ;  $p = 0.020$ ). The reduction in UE was also associated with lower levels of blood glucose ( $r = 0.332$ ;  $p = 0.017$ ), and the increase of cognitive restriction, with the reduction of insulin ( $r_s = -0.294$   $p = 0.036$ ) and TG ( $r = -0.368$ ;  $p = 0.008$ ).

**Conclusions:** Our results show that after a year of monitoring weight loss, adolescents had more controlled eating behaviors, increased PYY levels, and reduced weights.

### Biography:

Janine Alessi is a physician graduated from the Universidade Federal do Rio Grande do Sul. She is currently a resident doctor in internal medicine at Hospital São Lucas da PUCRS and a master's student at Universidad Federal do Rio Grande do Sul.



### Speaker Publications:

- 1.Janine Alessi, Simone Pereira Fernandes, Zilda Elisabeth Albuquerque Santos, Elza Daniel de Mello<sup>1</sup>; Federal University of Rio Grande do Sul, Brazil; Association between eating behavior, anthropometric and biochemical measurements, and peptide YY (PYY) hormone levels in obese adolescents in outpatient care.
2. S P Fernandes, E V Conterato, E D Mello; Manejo do paciente obeso pediátrico na atenção primária: proposta de uma abordagem terapêutica prática.
3. Hales, Cm, Carroll, Md, Fryar, Ogden; Prevalence of obesity among adults and youth: United States.

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