

was female (83.4%) and underwent Gastric Bypass (77.7%). The mean ESE score was 13.5 (sd=3.9). The most chosen barrier was "I like to eat" (42.7%), while "trying to eat a healthy or balanced diet" was the most selected determinant (96.8%). Concerning stages of change, 65% of the patients were in maintenance. On average, the current BMI was 29.1 (sd=4.3) kg/m², the BMI before surgery was 43.1 (sd=4.8) kg/m² and the minimum BMI postsurgery (minPS) was 27.4 (sd=4.1) kg/m². The BMI variation (now-before) has the largest decrease at 24 months (p<0.001). The BMI regain (now-minPS) increased with time (p<0.001). Logistic regression showed that patients who had lost BMI above the median were younger (p=0.012), submitted to gastric bypass (p=0.003), had higher BMI before surgery (p<0.001), had higher ESE (p=0.009), did not indicated "I can't do a diet in a serious way" as a barrier (p=0.005), chose "trying to eat a healthy or balanced diet" as determinant (p=0.003), and were those in the decision stage and not in the action stage (p=0.019).

CONCLUSIONS: Besides age surgery type and previous BMI, psychological factors also have an impact on weight loss after bariatric surgery.

CO14. CROSS-CULTURAL TRANSLATION AND VALIDATION TO PORTUGUESE OF THE BARIATRIC QUALITY OF LIFE (BQL) INDEX

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INTRODUCTION: Obesity is a chronic noncommunicable disease, defined by the body mass index (BMI) $\geq 30\text{Kg/m}^2$. Its burden is not restricted to mortality and morbidity from other noncommunicable diseases, but also from a decrease in quality of life (QoL). There are several tools for assessing QoL, from generic health-related tools to obesity-related tools. However, to assess QoL in patients undergoing bariatric surgery there was only BAROS, which has some issues. Therefore, the Bariatric Quality of Life (BQL) index was developed. We aimed to perform a cross-cultural adaptation and validation of the BQL index into the Portuguese language.

METHODS: A cross-sectional study was performed, by presenting two questionnaires to participants: BQL Index and EQ-5D-3L. Translation followed by forward translation, reviewing, back-translation, comparison, and pilot testing was done. Retest was performed 6 months after the baseline. The following psychometric properties were assessed: converging validity by correlation through Spearman coefficient ($r>0.3$) of BQL and EQ-5D-3L, internal consistency by Cronbach alfa coefficient (≥ 0.5), and reproducibility between test and retest through Spearman correlation ($r>0.3$) and intraclass correlation coefficient (≥ 0.60).

RESULTS: A total of 260 participants were included, the majority (78%) being females, mean age 45 ± 10 years old, and mean BMI $44\pm 6.5\text{kg/m}^2$. The most common obesity-related conditions were osteoarticular disease (69%), anxiety/depression (60%) and hypertension (54%); the eating patterns were volume-eater (67%) and sweet-eater (62%). QoL scores were 41.3 ± 9.3 for the BQL index, 0.35 ± 0.19 for the EQ-5D-3L index, and 55.7 ± 19.8 for the EQ-5D-3L VAS. The translation yielded good convergent validity ($r=0.62$), good internal consistency ($\alpha=0.94$) and good reproducibility ($r=0.62$ and ICC=0.79).

CONCLUSIONS: Our translation exhibited good parametric properties, with validity within the original BQL values, higher internal consistency, and suboptimal

reproducibility. We can conclude that this version of the BQL index is suitable for Portuguese patients.

CO15. CHANGES IN BONE MINERAL DENSITY IN ADOLESCENTS WITH OBESITY: INFLUENCE OF NUTRITIONAL AND PHYSICAL ACTIVITY BEHAVIORS

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INTRODUCTION: Pediatric obesity has a deleterious effect on bone health, compromising peak bone mass accrual in adolescence (a critical period of growth), increasing osteoporotic risk later in life. On the other hand, in adolescents with obesity under weight loss, energy intake restriction may lead to decreased calcium intake, compromising bone mineral content (BMC) and density (BMD). Yet, those who engage in higher levels of physical activity (PA) as a weight loss strategy, may benefit from improvements in BMC/BMD associated with PA. This study aimed to explore the influence of diet and PA changes (and their interaction) on BMC/BMD in adolescents with obesity followed in a pediatric obesity clinic, while controlling for potential confounding factors such as the presence of obesity-related comorbidities, sex, age and Tanner stage.

METHODOLOGY: Data on BMC, BMD, BMD z-score, body composition, diet composition, and PA, of 71 adolescents (93.0% Caucasian, 57.7% girls), aged 15.1 (± 1.6) years, with a BMI z-score of 3.03 (± 0.78), followed for 9 (± 3) months, were longitudinally analyzed.

RESULTS: Although, in general, participants showed an overtime increase in BMD ($\Delta 0.03\text{ g/m}^2$; 95%CI: 0.02,0.03; p<.001), 18 (25.4%) showed a BMD impairment. According to multinomial logistic regressions, controlling for confounders (i.e., comorbidities, sex, age Tanner stage, BMI z-score, diet content, and type o exercise), lower levels of stationary time, and higher levels of light and moderate-vigorous PA showed to be negatively associated with BMD impairment ($\beta = -6.63$; 95%CI: -458.35,83.66; $\beta = -10.44$; 95%CI: -550.38,10.90; and $\beta = -141.78$; 95%CI: -184.12,50.88, p<0.5). When controlling for confounders (i.e., comorbidities, sex, age Tanner stage, stationary time, light and moderate-vigorous PA) diet content showed no associations with changes in BMD.

CONCLUSIONS: High PA levels, including strength exercises, may attenuate the adverse effect of both deleterious dietary habits and obesity on bone health in adolescents with obesity.