

# H5: Assessing the Sustained Impact of a School-based Obesity Intervention: Juara Sihat™

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## ABSTRACT

**Introduction:** Obesity epidemic and physical inactivity among school children are the most challenging health problems in developing countries. The present study aimed to evaluate the sustained impact of Juara Sihat™ intervention on physical activity level and anthropometric status at 15-month follow-up. **Methods:** Quasi-experimental trial with participants (n=55) aged 12-14 years were followed-up from a primary school. This intervention focused on four key components, i) five one-hour nutrition education classes, ii) four one-hour physical activity education sessions, iii) family involvement, and iv) empowerment of Parents' and Teachers' Association. Anthropometric variables (body mass index, body fat percentage and waist circumference) were measured and physical activity level was evaluated by using Physical Activity Questionnaire for Children (PAQ-C) at baseline (P0), post intervention 1 (P1), post intervention 2 (P2), and post intervention 3 (P3) at 15 months. Analyses of repeated measure ANOVA with intention-to-treat principle were applied. **Results:** There were no significant differences in BMI z-score, body fat percentage and waist circumference at P3 follow-up. Sustained effects were found in BMI z-score ( $2.27\pm 0.81$ ) and body fat percentage ( $33.69\pm 8.47$ ), which showed a reduction at P3 follow-up, but no changes in waist circumference. In terms of physical activity level, there were positive improvements at P1 ( $2.89\pm 0.62$ ) and P2 ( $3.14\pm 0.68$ ), but was not sustained at P3 follow-up ( $2.87\pm 0.76$ ), with significant decrease in physical activity level ( $p < 0.05$ ). **Conclusion:** This study successfully demonstrated sustained intervention effects on BMI z-score and body fat percentage, but not waist circumference and physical activity level at P3 follow-up.

## KEY WORDS:

*School-based; obesity; anthropometry; physical activity; sustainability*

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# H6: Association between Oral Health Conditions, Oral Health-Related Quality of Life and Nutritional Status among Older Adults

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## ABSTRACT

**Introduction:** Oral health plays an important role in nutritional intake of older people. **Method:** This study was to determine the association between oral health conditions, oral health-related quality of life (OHRQoL) and nutritional status among a group of older adults in Kuala Pilah, Negeri Sembilan. A cross-sectional study was carried out on 428 older adults aged 50 years and above in Kuala Pilah, Negeri Sembilan. Dental conditions were determined through oral assessment, followed by physical examination to measure height, weight and body mass index (BMI) of respondents. A validated Malay version of Geriatric Oral Health Assessment Index (GOHAI) was used to measure OHRQoL, with higher scores indicating better perception on oral health. **Results:** Majority of the respondents were overweight and obese, 40.4% and 19.9% respectively, while only a small proportion was underweight, 3.9%. The oral health conditions of the older adults were poor with more than three-quarter (77.1%) had less than 20 teeth, 86.0% had reduced occluding posterior teeth and very high prevalence of dental caries and periodontal disease. The median GOHAI score was 54.5 (IQR 50-57) with 74.2% had poor perception on oral health. The findings showed that older adults with unsatisfactory BMI were more likely to have reduced number of posterior occluding pairs of teeth (OR=4.55, 95% CI=1.30-13.82) and poor perception of oral health (OR=2.11, 95% CI=1.26-3.41). **Conclusion:** It is important to advocate on healthy functioning dentition into old age as it may help to maintain a satisfactory BMI as well as improving the quality of life of the vulnerable group.

## KEY WORDS:

*Body mass index, elderly, GOHAI, oral health*