

UNIVERSITI TEKNOLOGI MARA (UiTM)

**DEVELOPMENT AND VALIDATION OF EDUCATIONAL MODULE
ON REDUCING SUGAR INTAKE**

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ABSTRACT

Background: Excessive consumption of dietary sugars has become a significant public health concern, associated with obesity, metabolic syndrome, and numerous chronic diseases. Despite the growing awareness of the adverse health effects associated with excessive sugar intake, there is still a lack of comprehensive educational resources targeted to effectively assisting individuals in lowering their sugar consumption. **Aim:** therefore, the objective of this study is to develop and validate an educational module that concentrates on lowering the consumption of sugar among adults between the ages 18 to 60. **Methods:** The study utilized the Patient Education Materials Assessment Tool for Printable Materials (PEMAT-P), the Suitability Assessment of Materials (SAM), and the Content Validation Questionnaire (CVI) to evaluate the module's understandability, actionability, suitability, readability, cultural appropriateness, and expert relevance, based on recent guidelines. **Result:** The evaluation using the PEMAT-P assessment demonstrated that the module achieved high marks for understandability (93.46%) and actionability (100%), suggesting its success in effectively communicating clear and practical knowledge. The SAM assessment yielded a score of 91.92% for the module, indicating its appropriateness, readability, and cultural fit. Furthermore, the CVI results, with an I-CVI and S-CVI/AVE score of 1.00, indicated complete consensus among experts about the module's relevance and intelligibility. **Conclusion:** The educational module on reducing sugar intake that has been developed is highly comprehensible and actionable, and it is suitable for promoting healthier dietary behaviors among adults in Malaysia. Expert validation substantiates the content's accuracy and relevance and aligns with recent guidelines, ensuring relevance and effectiveness.

Keywords: Educational module, Dietary sugar, Validation of educational module.

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CHAPTER 1: INTRODUCTION

1.1 Research background

In recent years, the significance of dietary sugars in public health has garnered increasing attention. Consequently, numerous government and health organizations globally have undertaken reviews of the evidence regarding the impact of dietary sugars on obesity and its associated ailments, as well as dental health (Newens & Walton, 2015). Consuming foods high in simple sugar can result in individuals eating fewer nutrient-rich foods, creating a nutritional imbalance (Lee & Joo, 2016). With that being said, overconsumption of sugar has been linked to a higher likelihood of gaining weight that ultimately contributes to the onset of metabolic syndrome (Nik & Shahar, 2018). For this, the prevalence of overweight and obesity has been increasing globally and poses a substantial public health issue due to their connections with conditions like diabetes and cardiovascular issues (María Isabel Santaló, Gibbons, & Naylor, 2019).

Malaysia experienced a discernible upward trajectory from 2011 to 2019, characterized by a notable 7.1% rise. This increase had a significant impact on a population of approximately 3.9 million individuals aged 18 years and older which is 1 in 5 adults who have diabetes (NHMS 2019). The Malaysian Adult Nutrition Survey (MANS) revealed that the average Malaysian adult consumes 7 teaspoons of sugar daily. This consists of 4 teaspoons of table sugar and 3 teaspoons of sweetened condensed milk added to beverages. This amount surpasses the recommended daily intake set by both the World Health Organization and Malaysia Dietary Guidelines, which advise limiting total daily sugar intake to no more than 50g. To add, The World Organization (WHO) recently updated its guidelines on sugar intake, targeting both adults and children. Free sugars, defined as added sugars in food and beverages with natural sugars in honey, syrups and fruits, were the focus. WHO strongly recommends reducing free sugar intake