

UNIVERSITI TEKNOLOGI MARA

**DEVELOPMENT AND VALIDATION OF A SUGAR MANAGEMENT
AND MENTAL HEALTH WELLBEING MODULE FOR YOUNG
ADULTS: A PREVENTIVE APPROACH TO DIABETES**

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ABSTRACT

The rising prevalence of stress-related disorders and Type 2 diabetes among young adults in Malaysia highlights the urgent need for culturally tailored health interventions. Guided by the Design and Development Research (DDR) framework, this study aimed to develop and validate an educational module titled *Dari Gula ke Minda: Menstabilkan Gula untuk Kesejahteraan Mental*, designed to promote stress management and sugar regulation among Malaysian youth aged 18 to 39. The module integrates psychological coping strategies with nutrition education to address behavioural risk factors associated with chronic disease.

Development was informed by evidence-based content and culturally relevant themes. Validation involved expert review using the Content Validity Index (CVI), yielding perfect scores for I-CVI, S-CVI/UA, and S-CVI/AVE (1.00), indicating unanimous agreement on item relevance and clarity. Understandability and actionability were assessed using the Patient Education Materials Assessment Tool (PEMAT), with scores of 95.3% and 92.7% respectively. Suitability was evaluated using the Suitability Assessment of Materials (SAM), which rated the module at 97.6%, classifying it as “superior.”

Findings suggest that the *Dari Gula ke Minda* module is clear, actionable, and culturally appropriate for its target population. Future directions include broader user testing and longitudinal studies to evaluate behavioural outcomes. The module holds strong potential for integration into university wellness programmes and community health initiatives aimed at preventing diabetes and improving mental well-being among young adults.

Keywords: diabetes prevention, stress management, health education, young adults, cultural adaptation, DDR framework, CVI, PEMAT, SAM

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CHAPTER 1: INTRODUCTION

1.1 Introduction

Stress has become a major issue for young adults around the world, especially in fast-growing areas like Malaysia. Many young people deal with chronic stress from the complex demands of school, jobs, and social life. This stress greatly impacts their mental and physical health. The fast pace of life in Malaysia, along with high academic and work expectations, leads to more stress-related health problems among the youth (Susanti & Bistara, 2022). Chronic stress is linked to various negative mental health effects, such as anxiety, depression, and sleep problems (Kessler et al., 2007). Long-term exposure to stress can also weaken the immune system and lower quality of life (World Health Organisation [WHO], 2020).

The transition from adolescence to adulthood is an important time filled with major life changes and the development of identity (Arnett, 2000). Young adults in Malaysia often deal with extra stress because of cultural and family expectations. This can lead to conflicts between traditional values and modern goals (Sumari et al., 2020). The mix of academic, social, and cultural pressures makes it crucial to focus on stress management specifically for this group. Without effective coping strategies, young adults might adopt harmful behaviours like social withdrawal or poor lifestyle choices, which can worsen their mental health issues (Susanti & Bistara, 2022).

Despite the wide impact of stress on young adults, there are few culturally appropriate interventions aimed specifically at this group in Malaysia. Many existing stress management programs are general and do not consider the cultural context that shapes how individuals experience stress and cope with it (Resnicow et al., 2000). Evidence shows that culturally adapted interventions work better because they include local beliefs, traditions, and social norms. This makes them more relatable and acceptable to the target group (Kreuter et al., 2003). For example, practices like community support, mindfulness rooted in spiritual traditions, and familiar relaxation techniques can improve engagement and program effectiveness.