

Paediatric Best Poster Presentation

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DIABETES-RELATED DISTRESS IN ADOLESCENTS WITH TYPE 1 DIABETES

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INTRODUCTION

Adolescents with type 1 diabetes (T1D) are vulnerable to diabetes-related distress (DRD), an emotional burden that may adversely affect glycemic control. Data on DRD among adolescents in Southeast Asia, particularly Malaysia, remain limited. This study aims to determine the prevalence of DRD and examine its association with glycemic control and socio-demographic background among Malaysian adolescents with T1D.

METHODOLOGY

This cross-sectional study recruited adolescents aged 10–19 years with T1D attending a tertiary Paediatric Endocrine Clinic in Malaysia between May and August 2025. DRD was assessed using two validated instruments: the Problem Areas in Diabetes–Teen version (PAID-T) and the Type 1 Diabetes Distress Scale (T1-DDS). Sociodemographic and clinical data, including glycated hemoglobin (HbA1c), were collected. Associations between distress, glycemic control, and other variables were analyzed using non-parametric tests, correlation analyses, and multiple linear regression.

RESULTS

Seventy adolescents participated (median age: 14.65 years). Moderate to severe DRD was reported by 32.9% using PAID-T and 38.6% using T1-DDS. Higher distress scores on both instruments were significantly correlated with poorer current and prior HbA1c levels. Adolescents with HbA1c $\leq 7.0\%$ were more likely to report minimal distress compared to those with higher HbA1c ($p = 0.042$, T1-DDS). Subdomain analyses revealed strong associations between emotional distress domains, particularly powerlessness and family/friends distress, and higher HbA1c. In multivariable regression, DRD, body mass index, and family/friends distress together explained 35% of the variance in HbA1c. Attendance at diabetes management camps was not associated with differences in distress levels.

CONCLUSION

Approximately one-third of Malaysian adolescents with T1D experience clinically significant DRD, which is strongly associated with suboptimal glycemic control. Emotional and family-related distress appear to play a particularly important role. Routine screening and targeted psychosocial interventions should be integrated into adolescent diabetes care to improve both emotional well-being and metabolic outcomes.