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Sleep Quality among Patients with Type 2 Diabetes: A Cross-Sectional Study in the East Coast Region of Peninsular Malaysia

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[Save all to author list](#)^a Department of Family Medicine, School of Medical Sciences, Universiti Sains Malaysia, Kubang Kerian, 16150, Malaysia^b Department of Family Medicine, Kulliyyah of Medicine, International Islamic University Malaysia, Jalan Sultan Ahmad Shah, Kuantan, 25200, Malaysia[Full text options](#) [Abstract](#)[Author keywords](#)[Funding details](#)**Abstract**

Poor sleep is related to type 2 diabetes and adversely influences a person's quality of life. This study aimed to evaluate sleep quality in patients with type 2 diabetes (T2DM), its associated factors, and its relationship with quality of life. A cross-sectional study was conducted at a primary care clinic in a tertiary hospital on the east coast of Malaysia. This study included 350 participants (175 men and 175 women). Data were collected using the Malay version of the Pittsburgh Sleep Quality Index (PSQI-M)

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with a cut-off point of >5 as poor sleep, the Malay version of Diabetes Distress Scale (MDDS-17) and the revised Malay version of T2DM-related quality of life (Rv-DQOL). Statistical analysis was conducted using the SPSS software version 26.0. The respondents' median (interquartile range (IQR)) age was 62.0 (11.0) years, and poor sleep was reported in 32% (95% confidence interval (CI) = 27.1, 36.9) of the participants. Multivariate logistic regression analysis revealed that poor sleep quality was significantly associated with nocturia (odds ratio (OR) = 2.04; 95% CI = 1.24, 3.35), restless legs syndrome (OR = 2.17; 95% CI = 1.32–3.56) and emotional burden (OR = 2.37; 95% CI = 1.41–3.98). However, no statistically significant association was observed between sleep quality and quality of life among our participants. © 2022 by the authors. Licensee MDPI, Basel, Switzerland.

Author keywords





diabetes distress; quality of life; sleep quality; type 2 diabetes

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