

Knowledge of Cardiovascular Risk Factors Among Patients with Diabetes Mellitus: A Cross-Sectional Study in Saudi Arabia

Khalid A. Alnemer*, Abdulaziz Taher Hejazi**, Ibrahim Mahdi Aseeri**, Abdulmajeed Ali Alotaibi**

ABSTRACT

Cardiovascular diseases (CVD)s are common across patients with diabetes mellitus. This study aimed to assess the awareness and knowledge among diabetic's patients about risk factors related to CVDs in Saudi Arabia. This study was an online cross-sectional survey conducted across Saudi Arabia to assess level of knowledge regarding CVDs risk factors among patients with diabetes. A previously validated questionnaire was utilized in this research to examine CVDs knowledge. Regression analysis was conducted to predict significant factors influencing participants' knowledge. The study included 378 participants. The majority of the participants demonstrated good awareness of cardiovascular risk factors. Most correctly believed that smoking is a risk factor (364, 96.3%) and that quitting reduces the risk (355, 93.9%). A high proportion also recognized high blood pressure (332, 87.8%) and high cholesterol (328, 86.8%) as risk factors, and acknowledged the benefits of blood pressure control (339, 89.9%) and fatty food (343, 90.7%) as contributors to heart disease. The total knowledge score mean was 19.21 ± 3.58 , while the median was 20. A total of 163 participant (43.1%) had a knowledge score above the median. Participants aged 20-30 years were 2.68 times more likely to have better knowledge about CVD risk factors compared to those under 20 (OR = 2.68, 95% CI: 1.39-5.18, $p = 0.003$), and those aged 51 and above had a markedly higher likelihood (OR = 11.19, 95% CI: 2.97-42.11, $p < 0.001$). Students were significantly more likely to had better knowledge compared to non-employed individuals (OR= 10.28, 95% CI: 3.17-33.38, $p < 0.001$), and working participants also showed a significant association (OR = 2.68, 95% CI: 1.01-7.10, $p = 0.04$). The current study showed that there is good knowledge of these sections among the Saudi population of diabetes, but increasing workshops and training related to this matter is of utmost importance to ensure that all patients, without exception, understand these risks and make them aware that they affect their lives.

Keywords: Awareness; Cardiovascular disease; Diabetes mellitus; Knowledge; Saudi Arabia

Bahrain Med Bull 2026; 48 (1): 2796-2801

* Department of Internal Medicine, College of Medicine
Imam Mohammad Ibn Saud Islamic University (IMSIU)
Riyadh 13317, Saudi Arabia.
Email: Kaalnemer@imamu.edu.sa

** College of Medicine, Imam Mohammad Ibn Saud Islamic University (IMSIU)
Riyadh 13317, Saudi Arabia.