

## Medication Adherence Behavior among Patients with Type 2 Diabetes in Selected Tertiary Care Hospitals in Central Province, Sri Lanka: A Mixed-method Study

RDC Jayasena<sup>1#</sup> and AMSD Pathirana<sup>2</sup>

<sup>1</sup>Teaching Hospital, Peradeniya, Sri Lanka

<sup>2</sup>Department of Nursing, Faculty of Allied Health Sciences, University of Peradeniya, Sri Lanka

<sup>#</sup>amsd@ahs.pdn.ac.lk

Diabetes mellitus is a Global Public Health burden, with Type 2 diabetes rapidly increasing. This rise adversely impacts medication adherence and health outcomes, contributing to higher morbidity and mortality rates. The main objectives of the study were to assess the level of medication adherence among patients with Type 2 diabetes and to identify barriers to medication adherence among patients with uncontrolled diabetes. An explanatory-triangulation mixed-method approach was employed. The Quantitative phase employed Stratified Random Sampling, while the Qualitative phase utilized Purposive Sampling. Ethical approval was obtained from the Ethics Review Committee of KIU University. The Brief Medication Questionnaire (BMQ) was administered to 253 diabetic patients, followed by semi-structured interviews with 18 patients with uncontrolled diabetes. In-depth interviews were conducted to explore adherence-related factors. Thematic analysis was applied to qualitative data, while quantitative data underwent descriptive and inferential analyses. A total of 37.64% of participants demonstrated complete medication adherence, while 29.94% were classified as poor. Non adherent patients had significantly higher HbA1c levels ( $p = 0.021$ ), with a greater proportion of insulin users being non adherent ( $p = 0.047$ ). Qualitative data revealed six themes related to perceived psychosocial barriers: (1) extrinsic factors, (2) intrinsic factors, (3) patient-related aspects, (4) attitudes toward the healthcare team, (5) use of traditional medicine, and (6) treatment-related adverse effects. Participants requested a mobile app for medication reminders and clarification. The study identified a significant number of participants with poor medication adherence. Culturally sensitive specific intrinsic and extrinsic factors were highlighted as barriers to medication adherence. Tailored counseling for diverse ethnic groups and mobile health interventions, are recommended to enhance diabetes management in Sri Lanka.

**Keywords:** *type 2 diabetes mellitus, medication adherence, mixed method study.*