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Prevalence, complications, and factors associated with glycaemic control in type 2 diabetes mellitus among elderly residents in free-service Elders' Homes in Jaffna District

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Background and objective: Diabetes mellitus is a growing global health concern affecting all age groups, particularly the elderly, who are more vulnerable to diabetes-related complications. Enhancing diabetes awareness and self-care practices can improve lifestyle choices and reduce complications. This study aimed to determine the prevalence, complications, and factors associated with glycaemic control in Type 2 Diabetes Mellitus (T2DM) among elderly residents in elders' homes offering free services in the Jaffna district.

Methods: A descriptive cross-sectional study was conducted in four elders' homes providing free services in the Jaffna district. Data were collected from all eligible residents using an interviewer-administered questionnaire via the Kobo Collect application. Statistical analysis was performed using SPSS. Descriptive statistics summarized the data, and Chi-square tests were used to identify associations between glycaemic control, complications, and other variables.

Results: A total of 291 elderly residents participated (100% response rate), with 48.1% diagnosed with T2DM. The highest prevalence was noted among individuals aged over 80 years (68.8%), smokers (65.1%), and those consuming alcohol (58.5%). Glycaemic control (FBC <125 mg/dl) was achieved in 79.5% of diabetic participants. However, a high prevalence of complications was reported: nephropathy (86.61%), neurological (81.98%), peripheral vascular (74.11%), retinopathy (64.29%), and cardiac complications (17.86%). Good glycaemic control was significantly associated with high medication adherence (91%), while age and physical activity level did not show association. Both controlled and uncontrolled T2DM groups had similar clinic follow-up attendance (87%), while daily glucose monitoring was notably low (1.1%) in both groups.

Conclusion: Almost half of the elderly residents had T2DM. Although good glycaemic control was observed in the majority, diabetes-related complications were high. Collaboration with nearby healthcare institutions would enable the institutions to run regular screening and follow-up programmes which would lead to early detection of the disease and its complications and improved diabetic care.

Keywords: diabetes mellitus, elders' homes, glycaemic control, diabetic complications, Jaffna district