

Effect of Meal Sequencing on Glycemic Control Among Patients with Type 2 Diabetes in Rural Ogun State, Nigeria

Ebenezer Ayodele Ojo

CEO, GreenLife Health Food Center

Ifeoma Priscillia

Caterer

Chisom Faith Abraham *

Microbiologist

Francis Gideon

Political Scientist

Abstract

Type 2 diabetes mellitus (T2DM) is a growing public health concern, particularly in low- and middle-income countries such as Nigeria. Effective glycemic control remains a challenge due to poor dietary practices and limited access to structured nutritional education in rural settings.

Meal sequencing—consuming vegetables and proteins before carbohydrates—has emerged as a simple, low-cost dietary strategy to improve postprandial glucose levels. This study evaluates the effect of meal sequencing on glycemic control among patients with T2DM in a rural area of Ogun State, Nigeria. A community-based cross-sectional study design will be used, involving adult diabetic patients. Data will be collected through structured questionnaires, dietary assessments, and biochemical measurements including fasting blood glucose and HbA1c.

Statistical analysis will assess the association between meal sequencing practices and glycemic outcomes. The study is expected to demonstrate that meal sequencing significantly improves glycemic control, providing a practical intervention for diabetes management in resource-limited settings.

Keywords

Type 2 diabetes mellitus (T2DM), Glycemic control, Meal sequencing, Postprandial glucose, Dietary practices, Rural health, Nutrition therapy, HbA1c, Fasting blood glucose, Diabetes management, Low-resource settings, Nigeria, Ogun State, Public health nutrition, Behavioral interventions, Blood glucose regulation.