Compliance to Pharmacotherapy and Lifestyle Modification Among Diabetic Patients at Gatundu Level 5 Hospital, Kiambu County, Kenya

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Abstract

Background: Diabetes Mellitus together with its complications is becoming more prevalent globally. Complications of diabetes result from poor glycemic control which can be due to non-compliance to medication and lifestyle modification.

Objectives: To determine the types pharmacotherapies used by patients with diabetes at Gatundu L5H, to assess their level of adherence to drugs and lifestyle modification as well as to evaluate the reasons for non-adherence to pharmacotherapy.

Methodology: This was a cross-sectional survey conducted between October 2022 and December, 2022. Systematically sampled diabetic patients (n=310) were interviewed using a structured questionnaire. A validated Morisky Green Levine Medication Adherence Scale (MGLS) and a two-point adherence scale were used to determine adherence to medication and lifestyle modification respectively. Descriptive reporting was done and quantitative data analyzed using chi-square test ($p < 0.05$).

Results

The adherence level was high with 70% of the patients scoring an MGLS score of zero (0) and only 15% scoring poorly at a MGLS score of 3-4. Seventy-eight percent spent between Kshs.1000-5000 (US$7 – 36) monthly on medications. Poor adherence to medication was directly associated with poor-adherence to recommended lifestyle modification. Those with poor adherence were likely to be on insulin therapy or a high-dosing frequency of OHAs.

Table 1: Socio-demographic characteristics

Sociodemographic characteristics	Remarks	Percentage
Gender	Males:	53%
	Females:	47%
Age categories	<30 years	25%
	30-60 years	53%
	>60 years	22%
Marital status	Married	70%
Academic level	=>Secondary level	29%

Figure 1: Type of pharmacotherapy used

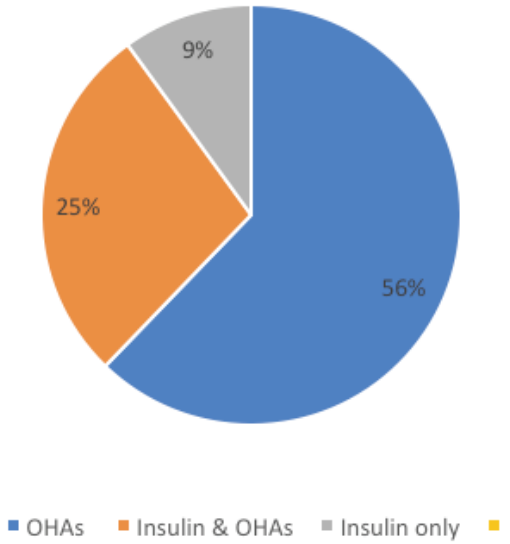

Table 2: Lifestyle modifications

Lifestyle modification	Non-adherence rates
Absence of regular inspection of feet	94%
Excess alcohol consumption	63%
Absence of HbA1c monitoring	75.4%
Poor diet	42%
Failure to the use of the right type of shoe	23.9%
Physical inactivity	20%
Cigarette smoking	15%

Conclusion: Biguanides and sulphonyureas were the most prescribed medications. The adherence level to pharmacotherapy was high but low for lifestyle modification. There was a positive correlation between non-adherence to pharmacotherapy and lifestyle interventions. Insulin therapy and pill-burden were independently linked to poor adherence to pharmacotherapy.

Recommendations: We recommend the following; (i) Patient education on adherence and ways to improve it, (ii) Aggressive follow up of patients on insulin therapy via phone calls or engaging Community Health Promoters (CHP), (iii) Encourage use of Fixed Drug Combinations (FDC) to reduce the pill burden, (iv) Health education regarding lifestyle modifications and footwear, (v) Healthcare providers at the hospital to be educated on foot care examination.

Key words: Compliance, Adherence, Diabetes, Pharmacotherapy, Lifestyle modification