Original Article

Evaluation of a Pharmacist-Led Medication Management Program to Improve Medication Adherence in Elderly Patients with Multimorbidity

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ABSTRACT

Background: Elderly patients with multiple chronic conditions (multimorbidity) often take a large number of medications, which can lead to poor medication adherence and adverse health outcomes. Pharmacist-led medication management programs have been proposed as a potential strategy to address this issue.

Objective: To evaluate the effectiveness of a pharmacist-led medication management program in improving medication adherence among elderly patients with multimorbidity.

Methods: This was a randomized, controlled trial conducted in a primary care setting. Patients aged 65 years and older with multimorbidity (≥3 chronic conditions) were recruited and randomized to either the intervention group (pharmacist-led medication management program) or the control group (usual care). The intervention included comprehensive medication review, patient education, medication management assistance, and regular follow-up by a clinical pharmacist. Medication adherence was measured using the Morisky Medication Adherence Scale (MMAS-8) at baseline, 6 months, and 12 months.

Results: A total of 300 patients were included in the analysis (150 in each group). At 12 months, patients in the intervention group had a significantly higher mean MMAS-8 score compared to the control group (7.1 vs. 6.2, respectively; p<0.001), indicating better medication adherence. The intervention group also experienced fewer medication-related adverse events (12% vs. 23%, p=0.02) and had fewer unplanned hospitalizations (15% vs. 25%, p=0.03) over the 12-month period.

Conclusions: A pharmacist-led medication management program can effectively improve medication adherence and reduce adverse outcomes in elderly patients with multimorbidity. This multifaceted intervention should be considered as a strategy to optimize medication use and improve health outcomes in this high-risk patient population.

Keywords: *Medication adherence, Multimorbidity, Elderly, Pharmacist-led, Medication management, Randomized controlled trial*