Medication Adherence Interventions Among People Living with Diabetes: A Systematic Review

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Abstract

Background: Medication adherence is a key factor in the management of Diabetes Mellitus (DM). Various interventions have been proposed to improve adherence. Objective: The objective of this systematic review is to evaluate and summarize the effectiveness of different interventions aimed at improving medication adherence among people living with diabetes. Methods: A comprehensive search was conducted across five databases (PubMed, Scopus, Embase, Cochrane Library, and ProQuest) to identify studies published between January 2015 and 1st April 2025. Studies were included if they focused on people living with diabetes and interventions targeting medication

adherence, with an emphasis on randomized controlled trials (RCTs) published in English. Inclusion and exclusion criteria were independently reviewed for quality by three researchers. Results: A total of 38 studies were included in this review, with 18 studies as low risk of bias, and the remaining studies exhibiting either some concerns risk of bias. Most studies were conducted in developing countries, with face-to-face education being the most commonly used intervention. Multi-component interventions were also frequently employed. The Morisky Medication Adherence Scale (MMAS) was the most widely used tool for measuring medication adherence. Additionally, eight studies incorporated theoretical models into their interventions. Conclusion: Both traditional and modern interventions have demonstrated potential in improving medication adherence among people living with diabetes, with multi-component strategies showing the most promising results. Future research should focus on integrating appropriate theoretical models into intervention designs and assessing the long-term effectiveness of these interventions across different populations.

Author keywords

diabetes mellitus; intervention; medication adherence; systematic review

Indexed keywords

EMTREE medical terms

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