

MOBILE APPLICATIONS AS HEALTH EDUCATION AND SELF-CARE SUPPORT TOOLS IN DIABETES MANAGEMENT: A NARRATIVE LITERATURE REVIEW

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RESUMO

ABSTRACT Introduction: Diabetes mellitus (DM) is a chronic disease with high prevalence and significant impact on public health, requiring continuous follow-up and therapeutic strategies focused on glycemic control and prevention of complications. In this context, mobile health (mobile health - mHealth) has emerged as a complementary tool to support self-care, health education, and clinical monitoring of individuals with diabetes.

Objective: To analyze the use of mobile applications as health education and self-care support tools in diabetes management, highlighting their functionalities and potential contributions to glycemic control and treatment adherence. **Methods:** This is a narrative literature review with a descriptive and qualitative approach, based on the analysis of scientific publications related to mobile applications aimed at diabetes mellitus management. Scientific articles published in Portuguese and English were analyzed, including studies addressing app functionalities, health education, glycemic self-monitoring, and digital strategies applied to diabetes management.

Results: The analyzed studies demonstrated that mobile applications may assist self-care and therapeutic monitoring in individuals with diabetes. The main functionalities identified included blood glucose monitoring, insulin therapy monitoring, medication reminders, carbohydrate counting, food records, graphical visualization of glycemic parameters, and educational resources related to diabetes. Associations were also observed between the use of these technologies and improved glycemic control, especially through increased self-monitoring and greater patient engagement in treatment. In addition, mobile applications showed potential to improve disease understanding, encourage healthy lifestyle habits, and strengthen health education strategies. However, the studies also highlighted limitations related to accessibility, the need for scientific validation of some platforms, and differences in the level of personalization among available resources.

Conclusion: Mobile applications represent potentially promising complementary tools in diabetes management, contributing to self-care, health education, and therapeutic follow-up support. Despite the observed benefits, further studies are still needed to evaluate the clinical effectiveness of these technologies and their applicability in different population contexts.

Palavras-chave: Diabetes Mellitus Mobile Applications Health Education Self-Care Digital Health.