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Abstract

Mobile App Improves Adherence to Antihypertensive Treatment in Elderly People with Hypertension: A Randomized Clinical Trial †

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Introduction: Adherence to antihypertensive treatment is a major challenge in managing Systemic Arterial Hypertension (SAH) among the elderly. Digital health technologies such as mobile applications offer promising tools to support therapeutic adherence and self-care. This study aimed to evaluate the effectiveness of a mobile application in improving adherence to antihypertensive treatment in elderly individuals. Methodology: A randomized, parallel, double-blind clinical trial was conducted with 50 participants aged ≥60 years diagnosed with stage 1 or 2 SAH. Participants were allocated to a control group (CG), which received an educational booklet, or an intervention group (IG), which used the "Bem Lembrado" app for three months. Adherence was assessed using the MMAS-8 scale and self-care with the EAC-HI scale, and clinical and biochemical parameters were also measured. Results: The intervention group showed a significant improvement in treatment adherence ($p < 0.05$), with an increased proportion of adherent patients post-intervention. Improvements were also observed in self-care scores, blood pressure levels, and biochemical markers compared to the control group. The study is registered with the Brazilian Clinical Trials Registry (REBEC) platform, under registration RBR-6kw6qnx, and the research was carried out with the consent of the institutions (UnB and FEPECS) in which data collection was carried out. It was approved by the Research Ethics Committee of the University of Brasília, Faculty of Ceilândia, according to opinion number 5.637.553 and CAAE 62700422.0.0000.8093. Conclusions: The use of mobile health technologies can be an effective strategy to enhance adherence to antihypertensive treatment in elderly populations, promoting autonomy and better disease control.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available upon request from the corresponding author.

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