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Treatment adherence among people with cardiac arrhythmias: a scoping review

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ADMINISTRATIVE INFORMATION

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Review stage at the time of initial registration - The review has not yet started.

Conflicts of interest - The authors declare no conflicts of interest related to this review.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 24 November 2026 and was last updated on 24 November 2026.

INTRODUCTION

Review question / Objective To map the available evidence on treatment adherence among people with cardiac arrhythmias through a scoping review.

Background Cardiovascular diseases (CVDs) are the leading cause of death worldwide, accounting for an estimated 19.8 million deaths in 2022, approximately 32% of all deaths (1). In Colombia, the 2024 report from the national statistics agency attributed 73,918 deaths, or 27% of all deaths, to CVDs (2). Cardiac arrhythmias are disturbances in heart rate or rhythm that may be asymptomatic or cause palpitations, fatigue, dizziness, shortness of breath, and chest discomfort (4,5). Atrial fibrillation is one of the most common sustained arrhythmias, and its prevalence increases with age (6,7). Management depends on the type of arrhythmia and the person's clinical characteristics and may include medication, lifestyle changes, regular follow-up, and procedures to control heart rate or rhythm.

Treatment adherence is the extent to which a person follows recommendations agreed upon with healthcare professionals. It encompasses medication use, dietary and lifestyle changes, and attendance at follow-up visits. Adherence is shaped by factors related to the individual, the treatment regimen, the health condition, the healthcare team and system, and socioeconomic circumstances (15,16). Research has focused mainly on oral anticoagulant use in people with atrial fibrillation. A meta-analysis reported pooled adherence estimates of 63% at six months and 70% at one year, with nonadherence associated with higher rates of stroke and death (16). In a survey of people with catecholaminergic polymorphic ventricular tachycardia, 15% of those receiving medication reported nonadherence, and 13.4% of participants exceeded recommended

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physical activity levels (17). These findings support examining adherence across different arrhythmias and treatment recommendations.

Condition Being Studied:
Cardiac arrhythmia. The Spanish Heart Foundation defines an arrhythmia as a disturbance in the heart's rhythm. Each heartbeat is initiated by electrical impulses that coordinate rhythmic contractions of the atria and ventricles. Arrhythmias occur when these impulses are generated abnormally, originate at an abnormal site, or travel through impaired conduction pathways (21).
Treatment adherence. Treatment adherence refers to the extent to which individuals follow recommendations from healthcare professionals. According to Buitrago, it encompasses taking medications as prescribed, following dietary and other health-related recommendations, and making recommended lifestyle changes (22).

Rationale Cardiac arrhythmias are disturbances in heart rate or rhythm that vary in their clinical presentation, symptoms, and effects on health (4,5). Their management may involve a range of therapeutic approaches and ongoing follow-up, making treatment adherence a central component of care. Treatment adherence encompasses taking medications as prescribed, following lifestyle recommendations, attending follow-up appointments, and implementing other measures recommended for managing the condition (15,17,22).
Treatment adherence is influenced by individual characteristics, features of the treatment regimen, and the support provided by healthcare services (15,22). The available evidence on treatment adherence among people with cardiac arrhythmias appears to focus primarily on atrial fibrillation and adherence to oral anticoagulants, as reflected in reviews of medication adherence and self-care behaviors in this population (16,18,19). Research has also examined adherence to medication and physical activity recommendations in other conditions, such as catecholaminergic polymorphic ventricular tachycardia (17). Across these studies, the focus varies by treatment, population, and factors examined. Mapping the evidence can provide a broader understanding of treatment adherence across cardiac arrhythmias.
This scoping review will identify, characterize, and map the available scientific evidence on treatment adherence among people with cardiac arrhythmias. A scoping review makes it possible to explore the literature, describe its main characteristics, and identify gaps in knowledge (20). The review will identify the treatments and populations studied and describe individual, family, and health service factors that may influence adherence. Its findings may guide future research and advance nursing knowledge, particularly in patient education, ongoing support, and the promotion of self-care among people with cardiac arrhythmias (15,18,19).

METHODS

Searching for the evidence PubMed and ScienceDirect. The search strategy will combine the following controlled vocabulary terms and keywords: Arrhythmias, Cardiac (MeSH Terms), Nursing (MeSH Terms), Treatment Adherence and Compliance (MeSH Terms), Arrhythmias, Cardiac (DeCS), Cardiac Care Nursing (DeCS), Nursing (DeCS), Treatment Adherence and Compliance (DeCS), Treatment Adherence (DeCS), Adherence, Therapeutic (DeCS), Adherencia al tratamiento (All Fields), Arritmias cardíacas (All Fields), and Enfermería (All Fields). The Boolean operators AND and OR will be used to combine search terms. Searches will be limited to publications in English, Portuguese, and Spanish.
LILACS and the Virtual Health Library (VHL/BVS). The search strategy will combine the following descriptors and keywords: Arritmias cardiacas, adherencia al tratamiento, and enfermería. The Boolean operators AND and OR will be used to combine search terms. Searches will be limited to publications in English, Portuguese, and Spanish.

Eligibility criteria Quantitative, qualitative, and mixed-methods studies, as well as systematic reviews, meta-analyses, and meta-syntheses, will be eligible for inclusion. Gray literature, letters to the editor, editorials, reflective articles, and duplicate studies will be excluded.

Source of evidence screening and selection The records retrieved from each database search will be exported to the Rayyan platform, where duplicates will first be identified and removed before proceeding with the screening process. Titles and abstracts will then be screened to identify potentially relevant articles for full-text assessment, which will determine their inclusion or exclusion in the review. Only articles that meet the eligibility criteria will be retained.

Data management Data collected will include authors, year of publication, country, language, methodology, type of arrhythmia, type of treatment, participant characteristics (age and gender), and other relevant findings and conclusions.

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Reporting results / Analysis of the evidence A comparative analysis will be conducted based on the variables described above to identify factors associated with treatment adherence in this population. Additionally, thematic analysis, following the approach proposed by Braun and Clarke (2021), will be used to establish thematic categories that group the articles according to similarities in their topics or approaches. Finally, the level of evidence will be assessed using the Joanna Briggs Institute (JBI) framework.

Presentation of the results The results of this review will be presented through comparative tables and descriptive quantitative analyses to identify research trends in this topic.

Language restriction Studies published in English, Portuguese, or Spanish will be included.

Countries involved Colombia.

Keywords Treatment adherence, nursing, cardiac arrhythmias.

Dissemination plans Findings will be presented at national or regional scientific meetings.

Contributions of each author

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