

# INPLASY

## The Effect of Music Therapy in Cardiac Rehabilitation: A Systematic Narrative Review

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### ADMINISTRATIVE INFORMATION

**Support** - None.

**Review Stage at time of this submission** - Completed but not published.

**Conflicts of interest** - None declared.

**INPLASY registration number:** INPLASY202630020

**Amendments** - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 6 March 2026 and was last updated on 6 March 2026.

### INTRODUCTION

**Review question / Objective** What are the effects of music therapy or music-based interventions on psychological, functional, and physiological outcomes in patients undergoing cardiac rehabilitation?

**Condition being studied** Cardiovascular diseases requiring cardiac rehabilitation (CR), including conditions such as myocardial infarction, coronary artery bypass graft surgery, and other cardiac conditions where structured rehabilitation programs are recommended. This review focuses on patients participating in cardiac rehabilitation programs in which music therapy or music-based interventions are applied as adjunctive strategies to improve psychological well-being, exercise adherence, and functional outcomes.

### METHODS

**Search strategy** A comprehensive literature search was conducted in PubMed, Embase,

Scopus, the Cochrane Library, and Web of Science for studies published up to September 4, 2025. The search strategy combined controlled vocabulary terms (e.g., Medical Subject Headings [MeSH] in PubMed and Emtree terms in Embase) with free-text keywords related to music therapy and cardiac rehabilitation.

The main search terms included “music” OR “music therapy” AND “cardiac rehabilitation” OR “cardiac rehab.” Additional keywords such as “coronary heart disease,” “myocardial infarction,” “valvular heart disease,” and “coronary artery bypass grafting” were included to ensure comprehensive coverage of studies involving music-based interventions in patients undergoing cardiac rehabilitation. Reference lists of relevant articles were also screened to identify additional eligible studies.

**Participant or population** Patients participating in cardiac rehabilitation programs, including those recovering from myocardial infarction, coronary

artery bypass graft surgery, or other cardiovascular conditions.

**Intervention** Music therapy or music-based interventions applied during cardiac rehabilitation programs.

**Comparator** Standard cardiac rehabilitation or usual care without music-based interventions.

**Study designs to be included** Randomized controlled trials, non-randomized studies, crossover studies, and qualitative studies.

**Eligibility criteria** Studies were included if they investigated music therapy or music-based interventions applied during cardiac rehabilitation programs and reported psychological, functional, or physiological outcomes. Eligible study designs included randomized controlled trials, non-randomized studies, crossover studies, and qualitative studies. Studies were excluded if they were unrelated to cardiac rehabilitation or music interventions, involved animal experiments, or were case reports, reviews, commentaries, or letters, or if they did not report relevant clinical or research outcomes.

**Information sources** Electronic databases including PubMed, Embase, Scopus, the Cochrane Library, and Web of Science will be searched to identify relevant studies. Reference lists of included articles and relevant reviews will also be manually screened to identify additional eligible studies. The search will include studies published up to September 4, 2025.

**Main outcome(s)** The main outcomes include psychological outcomes such as anxiety, depression, and mood, as well as functional outcomes related to cardiac rehabilitation, including exercise capacity, physical activity level, and adherence to rehabilitation programs.

**Quality assessment / Risk of bias analysis** The methodological quality of the included studies will be assessed using the Mixed Methods Appraisal Tool (MMAT, 2018 version), which allows the evaluation of randomized controlled trials, non-randomized studies, and qualitative studies within a single framework. Two reviewers will independently assess the methodological quality of each study, and disagreements will be resolved through discussion or consultation with a third reviewer when necessary.

**Strategy of data synthesis** Due to the heterogeneity of study designs, interventions, and

outcome measures among the included studies, a quantitative meta-analysis will not be conducted. Instead, a narrative synthesis will be performed. The findings will be summarized and compared according to the phase of cardiac rehabilitation (Phase I–III) and outcome domains, including psychological outcomes, functional outcomes, and physiological responses. This approach will allow a structured interpretation of the evidence regarding the potential role of music therapy in cardiac rehabilitation.

**Subgroup analysis** Subgroup analyses will be conducted according to the phase of cardiac rehabilitation (Phase I, Phase II, and Phase III) when sufficient data are available. Additional subgroup considerations may include differences in intervention types (e.g., music listening, rhythmic auditory stimulation, or combined music-based interventions) and outcome domains such as psychological, functional, and physiological outcomes.

**Sensitivity analysis** Sensitivity analysis will not be performed because this review is based on narrative synthesis rather than quantitative meta-analysis. However, the robustness of the findings will be considered through comparison of study designs and methodological quality during the interpretation of results.

**Country(ies) involved** South Korea.

**Keywords** cardiac rehabilitation, music therapy, music-based intervention, cardiovascular disease, exercise adherence, psychological outcomes, systematic review.

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