

Community-Based Yoga to Improve Quality of Life of the Coronary Heart Disease Survivors in Developing Countries: A Systematic Review

I Gusti Agung Ayu Bunga Cahyani^{1✉}, Ni Putu Diya Putri², Kadek Sari Sanjiwani², Desak Putu Yuli Kurniati¹

Department of Public Health, Faculty of Medicine, Udayana University, Bali, Indonesia

Department of Dentistry, Faculty of Medicine, Udayana University, Bali, Indonesia

✉ cahyani.2502561087@student.unud.ac.id

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Abstract. Background: Coronary heart disease (CHD) survivors in developing countries often face limited access to cardiac rehabilitation, leading to functional decline and impaired quality of life (QoL). Community-based yoga offers a scalable, low-cost mind-body intervention; however, its implementation models and specific physiological mechanisms require systematic synthesis. This study addresses the clinical question of whether community-based yoga serves as a feasible and effective alternative to improve quality of life and physiological regulation in these resource-limited settings. **Methods:** A systematic review was conducted in accordance with the PRISMA guidelines. Electronic databases (PubMed, Google Scholar, and Springer Nature) were searched for Randomized Controlled Trials (RCTs) published between 2015 and 2025. Studies were analyzed using the CLARIFY framework to classify intervention components (asanas, pranayama, and lifestyle) and were examined through the lenses of Polyvagal theory. **Results:** Three RCTs involving approximately 4,105 participants were included, met the strict study-design eligibility criteria. The review identified diverse intervention models, ranging from the scalable, community-based Yoga-CaRe program to hospital-to-home transition protocols. Compared with standard care – which often consisted only of educational leaflets – yoga interventions significantly improved Quality of Life (QoL) scores and functional capacity. Physiologically, yoga was found to reduce sympathetic overdrive, showing positive associations with improved sympathovagal balance, as evidenced by significant increases in high-frequency (HF) Heart Rate Variability (HRV) in one trial ($p=0.005$), though overall composite cardiovascular event rates did not differ significantly between groups. Evidence regarding formal cost-effectiveness and safety profiles remains limited. **Conclusion:** Community-based and transitional yoga models are evidence-based strategies that effectively enhance both the psychosocial well-being and cardiac autonomic regulation of CHD survivors. The findings provide a supportive empirical foundation for health authorities to consider integrating tiered yoga protocols into primary healthcare policies in developing countries to bridge the gap in secondary prevention services.

Keywords: Community-Based Cardiac Rehabilitation; Coronary Heart Disease; Developing Countries; Quality of Life; Yoga



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Key Messages

- This review of three RCTs involving 4,105 participants confirms that community yoga improves quality of life and recovery in CHD survivors compared with standard care, suggesting that community-based or transitional yoga interventions may also improve quality of life and functional capacity.
- Physiological parameters: limited evidence from a single trial suggests that structured yoga practice is associated with enhanced parasympathetic modulation, as indicated by increased Heart Rate Variability (HRV), although direct neurochemical pathways have not been established in this cardiac population.
- While community-based yoga offers a potentially low-cost and scalable framework, comprehensive data verifying formal cost-effectiveness is scarce, and systemic safety adherence protocols remain highly constrained.

1. Introduction

Coronary heart disease (CHD) remains the leading cause of global morbidity and mortality, placing a significant burden on healthcare systems, particularly in low- and middle-income countries (LMICs) [1]. While advances in pharmacological interventions and acute care have improved survival rates, many survivors face long-term challenges, including reduced functional capacity, psychological distress (anxiety and depression), and significantly impaired quality of life (QoL) [2]. Addressing these multidimensional sequelae is critical, as poor QoL is independently associated with higher rates of readmission and mortality [3].

Cardiac Rehabilitation (CR) is the gold standard for secondary prevention aimed at restoring QoL. Beyond functional recovery, CHD management requires effective physiological regulation, particularly the restoration of autonomic balance, which is often disrupted in survivors and contributes to poor QoL. However, in developing countries, participation in facility-based CR programs remains critically low due to high costs, limited infrastructure, and geographical barriers [4]. Most primary care systems in these regions lack the resources to provide comprehensive rehabilitation, widening the gap in holistic recovery for CHD survivors [5].

In this context, community-based yoga emerges as a promising alternative. As a mind-body intervention, yoga integrates physical postures (asanas), breathing techniques (pranayama), and meditation. Community-based yoga is a potentially low-cost intervention that minimizes reliance on expensive infrastructure, making it a viable option in resource-limited settings [6]. However, formal economic evaluations in LMIC contexts remain limited.

Although several studies have examined the benefits of yoga for cardiac patients, most reviews have focused on high-income settings or hospital-based interventions. There is a lack of systematic evidence on the implementation models and effectiveness of community-based yoga, specifically in developing countries.

Furthermore, the specific impact on Quality of Life (QoL) needs to be synthesized rigorously to guide policymakers.

In clinical practice, CHD survivors in developing countries frequently encounter structural barriers to conventional cardiac rehabilitation, such as high costs and geographical distance. This creates a critical gap in secondary prevention. Although clinical case illustrations are not explicitly presented, this context reflects a significant gap between patients' clinical needs and the availability of affordable interventions. Consequently, a clinical question arises: is community-based yoga a clinically effective and feasible alternative for improving the quality of life and physiological regulation of CHD survivors in resource-limited settings?

While existing literature broadly explores cardiac rehabilitation, there is a lack of synthesis regarding how community-based models specifically integrate asana, pranayama, and lifestyle components to improve QoL. This review aims to bridge this gap by evaluating the effectiveness and implementation models of community-based yoga specifically for CHD survivors in developing countries.

2. Method

Search Strategies

A systematic search was conducted in accordance with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines [7],[8]. As of the commencement of this study, a formal protocol had not been registered in PROSPERO. However, the review process was strictly guided by a predefined internal protocol based on the PRISMA 2020 statements to ensure methodological consistency. The search was limited to articles published in the last 10 years (2015–2025) to ensure the data were relevant. The final comprehensive database search was executed on November 15, 2025. Due to institutional subscription access constraints, the search was optimized within these selected platforms: PubMed, Google Scholar, and Springer Nature. The following search string was applied across the databases: ('yoga') AND ('coronary heart disease' OR 'cardiac rehabilitation') AND ('quality of life' OR 'QoL') AND ('developing countries' OR 'Low- and Middle- Income Countries'). To manage the high volume of unindexed records on Google Scholar while ensuring the inclusion of regional, open-access primary care trials from Low- and Middle-Income Countries (LMICs), a strict a priori stopping rule was implemented, limiting screening to the first 200 records, sorted by relevance. Geographies were formally verified against the World Bank Atlas classification (2025/2026 reference year) to ensure strict alignment with resource-constrained settings.

Eligibility Criteria

Studies were selected based on the PICO framework (9). Population (P): adult survivors (> 18 years) of Coronary Heart Disease (CHD) or those who have undergone revascularization procedures (e.g., Percutaneous Coronary Intervention/PCI or Coronary Artery Bypass Grafting/CABG). Intervention (I): structured yoga programs (incorporating asanas, pranayama, and/or meditation) delivered within a community-based cardiac rehabilitation setting. Comparison (C): standard care routine (pharmacological therapy with or without brief educational leaflets), active control groups (such as structured walking exercise), or wait-list control conditions. Outcome (O): primary outcomes focused on quality of life (QoL) and psychological well-being (anxiety/depression). Secondary outcomes included functional capacity and cardiovascular parameters. Study design: only peer-reviewed Randomized Controlled Trials (RCTs) published in English or Indonesian were included.

For this review, “community-based” interventions were defined as yoga programs delivered outside of conventional acute-care hospital settings, including home-based practice following a hospital-to-home transition, local primary health centers, or community-led group sessions. Exclusion criteria comprised protocol-only papers without results, conference abstracts, grey literature, and studies conducted exclusively in high-income settings that did not reflect the resource constraints of developing countries.

Study Selection

The selection process followed a two-stage screening protocol. First, titles and abstracts were screened for relevance to the research question. The identification of zero duplicate records resulted from the initial manual filtering performed by the primary researcher during the database export process, where overlapping titles were removed before formal screening. Second, full-text articles of potentially eligible studies were retrieved and assessed against the inclusion and exclusion criteria. The screening process and reasons for exclusion are detailed in the PRISMA flow diagram [Figure 1](#).

Data Extraction and Quality Assessment

To ensure transparency, data extraction was executed independently by two reviewers. Data were extracted using a standardized form that captured: study design, sample size, intervention details (type of yoga, frequency, duration), and key quality-of-life outcomes. Any discrepancies between reviewers were resolved through mutual consensus.

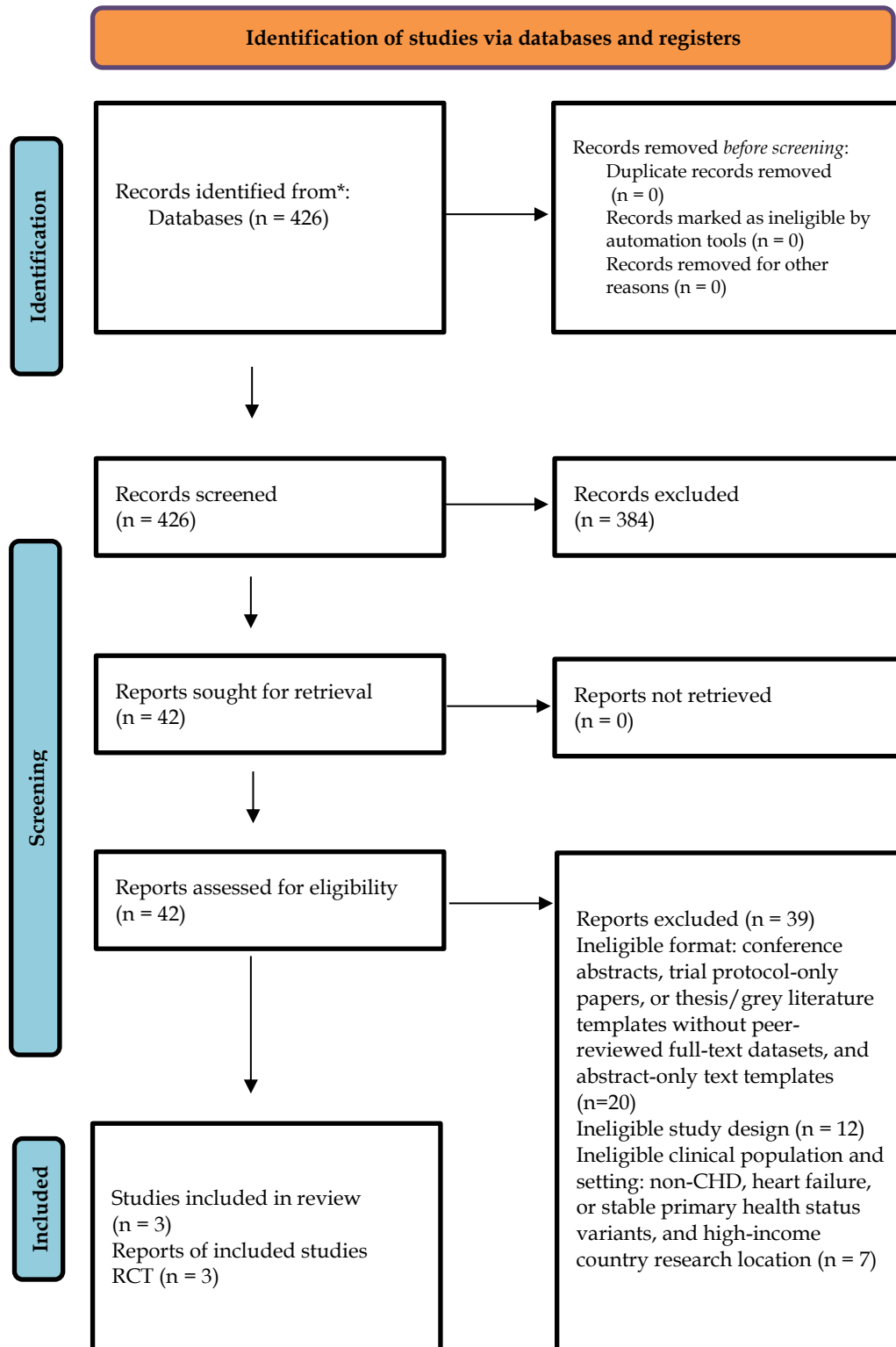


Figure 1. PRISMA Flow Diagram

The methodological quality of the final eligible randomized trials was assessed at the outcome level, focusing primarily on patient-reported Quality of Life (QoL), using the standardized Cochrane Risk of Bias 2 (RoB 2) tool (Supplement 1). Two reviewers independently conducted the assessment across the five core domains: bias

arising from the randomization process; bias due to deviations from intended interventions; bias due to missing outcome data; bias in measurement of the outcome; and bias in selection of the reported results. Any underlying variations or divergent domain judgments between the two primary extractors were thoroughly addressed and resolved through mutual consensus and open discussion.

Overall, judgments were summarized into low risk, some concerns, or high risk based on standard Cochrane domains. The included studies demonstrated a low risk of selection bias, with most using computer-generated randomization and adequate allocation concealment. Performance bias was logically expected to be high across all cohorts due to the structural impossibility of blinding behavioral instructors and active participants to a mind-body yoga intervention. Concurrently, detection bias was evaluated at the outcome level, noting some concerns with self-reported QoL questionnaires but minimal for secondary physiological outcomes such as Heart Rate variability (HRV) and blood pressure, which were evaluated by blinded assessors.

Data Synthesis

Due to the heterogeneity of yoga interventions and outcome measures, a meta-analysis was not feasible. A narrative synthesis was conducted by grouping studies according to their intervention delivery model (e.g., hospital-to-home vs. pure community-based). We textually compared QoL direction and functional outcomes across diverse scales. Interpreting the results through the lens of the CLARIFY framework to categorize the intervention components. Furthermore, the physiological impact was interpreted using Polyvagal Theory (autonomic regulation) within the discussion section to provide a theoretical basis for the observed outcomes.

3. Results and Discussion

Characteristics of Included Studies

A total of three Randomized Controlled Trials (RCTs) met the specified inclusion criteria. These trials were conducted in India; specifically, Christa et al. (2019), Prabhakaran et al. (2020), and Sharma et al. (2020) provide direct evidence for secondary prevention and implementation within LMICs contexts [10],[11],[12]. While Prabhakaran et al. and Sharma et al. focused on community-based integration, Christa et al. introduced a critical "hospital-to-home" transition model, demonstrating the feasibility of initiating yoga in tertiary care before transitioning to home practice [10].

The sample sizes across the final eligible evidence-based studies ranged from 66 to 3,959 participants, comprising a cumulative total of 4,105 randomized individuals. The target populations were strictly focused on survivors of Acute Myocardial Infarction (AMI) and coronary heart disease (CHD). All included trials compared structured yoga interventions against standard care, which encompassed routine pharmacological management combined with varying levels of lifestyle

education or counseling protocols. A summary of the study characteristics is presented in [Table 1](#).

Table 1. Characteristics of Included Studies

Study (Author, Year)	Sample Size, Setting & LMIC Status	Target Population	Intervention Attributes (Frequency & Duration)	Control Group Attributes	Primary Patient-Reported Outcomes (QoL)	Secondary Clinical & Physiological Outcomes	Participant Retention & Adverse Events Data
Christa et al. (2019) (10)	n=80 New Delhi, India (LMIC)	Post-AMI (Phase II Rehabilitation)	Hospital-to-Home Model: Supervised yoga sessions incorporating physical alignments and breathwork, transitioning to home-based maintenance.	Standard pharmacological care combined with brief lifestyle education and conventional informational leaflets.	Positive trends in health-related QoL parameters reported via post-intervention tracking metrics.	Significant post-intervention improvements observed in High-Frequency (HF) HRV power ($p<0.05$), indicating enhanced parasympathetic tone.	High completion rates documented during the supervised clinical phase; home compliance monitored via logbook diaries. <i>No major safety events highlighted.</i>
Sharma KNS et al., 2020 (11)	n=66 Bengaluru, India (LMIC)	Chronic Coronary Heart Disease (CHD)	Integrated Yoga Lifestyle: Multi-component practice of asanas ¹ and pranayama ² , paired with a Sattvic diet ³ and behavioral stress counseling.	Routine medical management combined with unstructured verbal advice to perform regular walking exercises.	Significant reductions in self-reported anxiety and depression scores; Significant enhancement in health-related QoL measured via the Duke Activity Status Index (DASI; $U=146$, $p=0.0$) at 3 months.	Documented increases in physical functional capacity measured via Metabolic Equivalents (METs).	85% trial retention rate observed; high participant commitment required to maintain dietary modifications. <i>No intervention-related risks reported.</i>
Prabhakaran et al., 2020 (12)	n=3,959 Multi-center, India (LMIC)	Acute Myocardial Infarction (AMI) survivors	Yoga-CaRe Program: Standardized 12-week protocol consisting of structured asanas ¹ ,	Standard pharmacotherapy combined with three structured counselor-led	Statistically significantly improvements in EuroQol (EQ-5D-5L) QoL scores at 12 weeks	No statistically significant difference observed in Major Adverse Cardiovascul	92.3% trial retention rate achieved; no intervention-related serious adverse events

Study (Author, Year)	Sample Size, Setting & LMIC Status	Target Population	Intervention Attributes (Frequency & Duration)	Control Group Attributes	Primary Patient-Reported Outcomes (QoL)	Secondary Clinical & Physiological Outcomes	Participant Retention & Adverse Events Data
			pranayama ² , and deep meditation ⁴ .	educational sessions and leaflets.	(p=0.002); accelerated return to work.	ar Events (MACE) rates (6.7% vs 7.4%).	reported across the cohort.

Notes:

¹ Asanas: Physical postures or sequences of movements designed to improve flexibility, strength, and balance.

² Pranayama: Controlled breathing techniques aimed at regulating energy and calming the autonomic nervous system.

³ Sattvic Diet: A traditional nutritional framework used in the integrated lifestyle trial, emphasizing whole, minimally processed, plant-based foods, such as fresh fruits, vegetables, whole grains, and nuts, aimed at reducing systemic metabolic parameters and supporting holistic secondary behavioral modification.

⁴ Meditation/Dhyana: Mental training practices used to cultivate focused attention, mindfulness, and emotional regulation.

Component Analysis and Mechanisms

To systematically analyze the heterogeneity of yoga protocols and their underlying mechanisms, this review utilized two established frameworks. First, the interventions were deconstructed using the CLARIFY Guidelines (Checklist Standardizing the Reporting of Interventions for Yoga) developed by Ward et al. (2022) [13]. This taxonomy classifies yoga into four distinct domains: physical postures (asanas), breathing techniques (pranayama), relaxation/meditation (dhyana), and philosophy/lifestyle, enabling precise comparison of intervention components.

Second, the physiological mechanisms were examined through the lens of the Polyvagal Theory (Porges, 2009) [14],[15]. The Polyvagal Theory posits that slow, rhythmic breathing stimulates the vagus nerve, thereby enhancing parasympathetic tone and Heart Rate Variability (HRV) [14]. This concept of "autonomic remodeling, or the restoration of sympathovagal balance, is central to the findings of Christa et al. (2019), whose spectral analysis of HRV demonstrated a significant post-intervention increase in High-Frequency (HF) power within an LMIC cardiac cohort [10]. The components and documented parameters of the eligible yoga intervention are summarized in **Table 2**.

Applying the CLARIFY framework, the analysis revealed significant variations in the dominant components of the yoga interventions. Prabhakaran et al. (2020) employed a "balanced approach" (Yoga-CaRe) that placed equal emphasis on asanas, pranayama, and meditation [12]. This standardized model is designed to mirror the comprehensive nature of facility-based rehabilitation while being delivered cost-effectively in a community setting.

Table 2. Analysis of Yoga Intervention Components and Mechanisms

Study (Author, Year)	Yoga Style / Protocol	Dominant Component (CLARIFY Framework)	Proposed Mechanism (Theoretical Basis)	Implementation Notes
Christa et al. (2019)	Yoga-Based Cardiac Rehabilitation	Multimodal: Synchronization of physical loosening exercises, asanas ¹ , and pranayama ² .	Autonomic Regulation: Potential improvements in sympathovagal balance associated with enhanced parasympathetic (vagal) tone.	Hospital-to-Home delivery model (Phase II); requires initial clinical verification and participant logbooks to track home compliance.
Sharma et al. (2020)	Integrated Approach	Lifestyle-Dominant: Asanas ¹ combined with structured Sattvic diet ³ and behavioral stress-management philosophy.	Psychosomatic Pathway: Potential reduction of systemic stress and emotional distress via structured lifestyle modification.	Requires high participant commitment to achieve long-term dietary and daily habit modifications within primary care settings.
Prabhakaran et al. (2020)	Yoga-CaRe (Hatha-based ⁵)	Multicomponent: Balanced integration of physical asanas ¹ , pranayama ² , and meditation/dhyana ⁴	Holistic Conditioning: Integrated modulation of the autonomic nervous system alongside physical functional capacity recovery.	Standardized, scalable community-based delivery model; utilizes brief initial training under certified instructor supervision.

⁵ Hatha-based: A structured, standardized yoga-based cardiac rehabilitation program integrating physical, breathing, and meditative components

Complementing this, Christa et al. (2019) introduced a “hospital-to-home” transition model. While similarly multimodal in its integration of breath and movement, this protocol explicitly bridges the gap between tertiary-care supervision and home-based maintenance by utilizing early Phase II rehabilitation to ensure safety before independent practice [10]. In contrast, Sharma et al. (2020) used a “lifestyle-dominant” approach (Integrated Yoga Lifestyle), in which the intervention extended beyond physical practice to include dietary modification and stress-management counseling, emphasizing yoga as a holistic behavioral-modification strategy rather than an isolated therapy session [11].

From a mechanistic perspective, these diverse delivery models yield clinical benefits by targeting specific physiological pathways. The multi-component integration of slow-paced pranayama and relaxation techniques aligns with the physiological concepts of Polyvagal Theory. Specifically, Christa et al. (2019) documented that a supervised yoga-based intervention in post-MI patients was

associated with a significant post-intervention increase in High-Frequency (HF) HRV power [10]. This objective outcome suggests a positive trend toward enhanced parasympathetic activity, which may help mitigate the elevated sympathetic overdrive frequently observed during secondary cardiac recovery.

Discussion

Effectiveness and Mechanisms of Yoga on Quality of Life

This systematic review demonstrates that community-based yoga interventions may improve the Quality of Life (QoL) and functional capacity of CHD survivors in LMICs. The findings from the Yoga-CaRe Trial (Prabhakaran et al., 2020) and Sharma et al. (2020) indicate that structured yoga serves as a comprehensive mind-body approach that addresses the psychological components of coronary recovery alongside standard medical care [11],[12]. Rather than replacing conventional cardiac rehabilitation, which is inherently multidimensional, yoga may offer a highly accessible, integrated strategy that targets both physical conditioning and stress-reduction pathways in resource-limited settings.

The analysis of intervention components using the CLARIFY framework reveals that different yoga styles yield benefits through distinct physiological pathways. Interventions incorporating structured pranayama and relaxation techniques align with the homeostatic principles of the Polyvagal Theory [14],[16]. Crucially, Christa et al. (2019) provided physiological data within an LMICs post-MI population, demonstrating that a yoga-based regimen was associated with significant post-intervention increases in High-Frequency HRV power (114.42 ms^2 in the yoga cohort versus -38.14 ms^2 in enhanced standard care; $p=0.005$) alongside an increase in Total Power normalized unit (44.96 versus -19.55 ; $p=0.01$) [10]. This objective trend suggests a shift toward enhanced parasympathetic modulation, which may help stabilize the elevated sympathetic overdrive typical among recovering cardiac patients. Cumulatively, this clinical diversity indicates that while standardized multicomponent models (such as Yoga-CaRe) support comprehensive quality-of-life recovery [10], integrated lifestyle protocols may offer complementary options for psychosocial well-being [11], warranting cautious clinical tailoring to individual patients' capacities within primary care frameworks.

Feasibility in Low-Resource Settings

A critical finding of this review is the feasibility of implementing these models in LMIC. The high retention rates observed in community-based studies reflect strong participant adherence and high accessibility within regional contexts. By utilizing local community centers and requiring minimal equipment (often just a mat), yoga bypasses the infrastructural barriers typical of developing regions.

The inclusion of the study by Christa et al. (2019) further expands the implementation options by demonstrating the viability of a "hospital-to-home" transition model [10]. Christa et al. (2029) showed that initiating yoga in a tertiary care setting (Phase II rehab) before transitioning to home practice supports patient confidence and short-term compliance for recent post-MI patients [10]. This suggests a tentative, tiered delivery pathway in which patients receive initial clinical supervision to ensure baseline stability before moving to potentially low-cost community or home-based maintenance.

Implications for Future Research and Cautious Implementation

The evidence synthesized in this review, specifically the clinical effectiveness of the Yoga-CaRe model, the physiological validation via HRV, and the high feasibility in low-resource settings, provides an empirical foundation for the planning [10],[11],[12]. Policymakers and primary care clinicians may evaluate the integration of community-based yoga into standard cardiac care, provided that local feasibility and the moderate level of current evidence are considered. These insights suggest potential exploratory strategies for primary healthcare systems in developing countries.

First, integration into Standard Care Pathways. Primary care centers (such as health posts or clinics) should consider incorporating yoga as a complementary component of the chronic disease management program (e.g., Prolanis or equivalent frameworks). This approach is supported by current trial data indicating that structured yoga improves QoL and functional capacity (METs) comparable to conventional methods in regional settings. Where feasible, physicians may be encouraged to suggest yoga alongside standard pharmacological therapy for stable CHD survivors, particularly targeting individuals with lower baseline QoL scores or anxiety, in line with scientific statements regarding the mind-heart-body connection [17].

Second, Risk Stratification and Safety Protocols. To translate the clinical diversity of the included studies into practice, preliminary research frameworks and an exploratory tiered delivery strategy require implementation testing: 1) Transitional and Gentle Hatha Yoga (Stable/Post-MI Patients), which is targeted at patients in Phase II rehabilitation (recent discharge to 3 months post-event). A protocol based on Yoga-CaRe and Christa's Hospital-to-Home Model before transitioning to homebased maintenance with simple asanas and relaxation; and 2) Comprehensive Lifestyle Program (Low-Risk/Maintenance) targeted at patients motivated for long-term lifestyle modification. Data from the integrated lifestyle model [11] suggests the effects of active yoga practice combined with structured dietary counseling and basic stress management.

Third, Adoption of “Hospital-to-Home” Transition Models. Health systems may benefit from exploring transitional delivery models to bridge the gap between tertiary care discharge and community maintenance, as demonstrated by Christa et al. (2019) [10]. The reviewed data suggest that initiating brief, structured supervision before the home transition supports patient confidence and compliance, potentially reducing dropout rates observed in facility-only programs.

Fourth, Workforce Training and Core Competencies. Health authorities are encouraged to collaborate with certified yoga institutions to develop basic short-course orientations, such as “Medical Yoga for Heart Health,” for non-physician providers and community health workers, drawing on the training principles developed for the Yoga-CaRe trial [18]. Such training should ideally emphasize strict safety contraindications (e.g., avoiding prolonged breath-holding or high-intensity inversions in cardiovascular patients) over advanced physical flexibility [19]. Furthermore, data from the integrated model of Sharma et al. (2020) suggest that incorporating fundamental lifestyle and nutritional counseling yields a more comprehensive secondary-prevention reference.

Fifth, Utilization of Objective Monitoring. Based on the physiological metrics utilized by Christa et al. (2019), primary care providers could evaluate the long-term utility of Heart Rate Variability (HRV) parameters as an objective, non-invasive tool, alongside standard subjective surveys, to track recovery trends.

The last, Decentralized Community Partnerships. Primary care providers could explore mapping and collaborating with local non-clinical resources (such as community halls or regional centers) to host group sessions. This decentralization potentially reduces the logistical burden on formal clinical facilities while fostering essential peer support networks among survivors, which has been identified as an important factor in long-term compliance [20].

Study Limitations

Several methodological limitations should be acknowledged in this systematic review. First, this review was constrained by institutional subscription access, which limited the comprehensive literature search to PubMed, Google Scholar, and Springer Nature, and did not integrate alternative commercial databases such as Scopus, Web of Science, or the Cochrane Library. To mitigate this database constraint and ensure adequate coverage, the search strategy was optimized within PubMed to capture the vast majority of core MEDLINE biomedical literature. Furthermore, Google Scholar was used rigorously as a primary source to identify regional, open-access, and primary care-specific trials conducted in low- and middle-income countries (LMICs) that are frequently underrepresented or omitted in Western commercial indexes. While fully replicable search strings are provided to maximize transparency, the

exclusion of alternative subscription-based platforms is an inherent limitation that may have resulted in the omission of some relevant publications.

Second, this review is inherently constrained by the limited number of direct CHD/LMICs randomized trials (n=3) identifying eligible evidence. Furthermore, these trials exhibit extreme country concentration, as all final eligible data originated exclusively from India, which may limit the direct generalizability of the findings to alternative, socio-economically diverse developing regions without local adaptation. There is also notable heterogeneity in interventions and scales across the cohorts, alongside a lack of pooled quantitative effect estimates (meta-analysis), which introduces clinical variability when evaluating secondary quality of life. Consequently, while the foundational mind-body therapeutic principles of yoga remain promising, the specific magnitude of its clinical efficacy and the safety of its systemic implementation should be interpreted with caution within a broader primary healthcare framework. Concurrently, performance bias was inherently high across all three included trials due to the structural impossibility of blinding active coronary survivors and behavioral yoga instructors to a mind-body intervention, reflecting a standard methodological constraint in clinical yoga-based rehabilitation trials.

4. Conclusion

This systematic review suggests that community-based and transitional yoga models represent an encouraging, evidence-based strategy to help bridge the critical gap in secondary prevention in resource-constrained settings. The synthesized finding indicates that structured mind-body protocols are associated with positive trends in health-related quality of life and physical recovery, potentially mediated by improved parasympathetic modulation as conceptualized through the Polyvagal framework. However, because the existing evidence base is limited in both number and geographic scope, these primary care insights should be interpreted as adaptive, preliminary options rather than rigid policy mandates. Collectively, these findings provide a supportive empirical foundation for health authorities in developing countries to consider integrating structured, tiered yoga protocols into primary cardiac care to optimize secondary prevention and long-term survivor outcomes.

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