

## Editorial

## Discrepancy in cardiac rehabilitation: national and international perspective

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Cardiac patients need cardiac rehabilitation (CR) as part of their post-hospital care, but there are significant global variations as CR is administered and designed. For improved patient outcomes following myocardial infarction (MI) or coronary artery bypass grafting (CABG), comprehensive cardiovascular rehabilitation (CR) programs are essential in developed nations. These programs include structured exercise plans, instruction on modifiable cardiovascular risks, and psychological therapy. Even though CR lowers rates of morbidity and death, there is not sufficient standardization or application of CR worldwide.

German CR programs, for instance, prioritize offering comprehensive residential care for a shorter three-week duration than programs in other Western countries [1]. This illustrates how different CR strategies can exist even in nations with comparable healthcare systems. Exercise tolerance, quality of life, and clinical outcomes are all improved by CR, according to research, especially in patients with heart failure and low ejection fraction (HFrEF)[2].

Even in low- and middle-income countries (LMICs), where there are limited healthcare resources and poor utilization rates, there are still disparities in access to CR. Understanding outcomes, quality, and service delivery requires national registries; yet little is known about the number, kinds, and elements of these registries in relation to cardiac rehabilitation. The use of national and international registries to define cardiac rehabilitation and establish quality enhancement standards is still in its early stages, but it has the potential to make cross-country comparisons easier [3].

Cardiac rehabilitation (CR) programs are not widely available in Low-Middle Income Countries (LMICs), and overall, these treatments are not sufficiently offered to meet the growing burden of cardiovascular disease (CVD) in these regions. It is also shown that the CR service utilization rates in LMICs are not up to optimal levels. Numerous CR challenges plague both high-income and low-income nations, but LMICs are more disadvantaged because of their lack of resources, inadequate health systems, and affordability issues [4].

Similarly, despite evidence connecting cardiac rehabilitation to lower mortality among PCI patients in the US, an international analysis focused on the consistently low rates of referral to cardiac rehabilitation after PCI. After PCI, only about 60% of patients receive a referral for cardiac rehabilitation, which is still below ideal levels [5]. It is not possible to attribute the significant disparity in referral rates amongst medical facilities to variations in insurance coverage. These results highlight the possible need for hospital-level measures targeted at improving the rates of cardiac rehabilitation referrals after percutaneous coronary intervention.

Globally, only a few nations have CR programs, and LMICs face more challenges when it comes to providing services. This demonstrates the urgent need for coordinated initiatives to boost CR competence and availability through innovative delivery strategies, efficient referral networks, and favourable health policies [6, 7].

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Likewise, cardiovascular disease (CVD) is avoidable and pushes for middle-income nations to adopt cardiac rehabilitation (CR) more widely. To reduce additional death and morbidity after CVD events, these components include initial assessment, management of lifestyle risk factors (such as diet, tobacco use, and mental health), medical risk factors (such as blood pressure, lipids, and blood pressure), self-management education, and assistance with returning to work. To cut expenses, the evaluation recommends alternate delivery sites such primary care, community, and home. Furthermore, suggestions are offered for situations in which a non-physician, such as an allied health professional or community health worker, serves as the primary provider of critical care[8].

Consequently, considering the benefits of cardiac rehabilitation, the purpose of this review was to emphasize how important it is to put cardiac rehabilitation into practice after procedures like PCI, CABG, and other heart surgeries. This calls for the creation of possibilities for cardiac rehabilitation specialists to maximize their contributions to the well-being of patients undergoing such surgeries in the community, as well as the facilitation of more efficient referral processes. Ensuring high-quality rehabilitation services is essential.

Finally, research on Pakistan indicates that while following some elements of standard cardiac rehabilitation after myocardial infarction may improve health-related quality of life, there are still issues with providing thorough and consistent cardiac rehabilitation throughout Phases II, III, and IV as well as sufficient psychosocial support. These issues stem from a lack of funding as well as barriers to receiving cardiac rehabilitation referrals and services.

## REFERENCES

1. Rauch B, Salzwedel A, Bjarnason-Wehrens B, Albus C, Meng K, Schmid JP, et al. Cardiac Rehabilitation in German Speaking Countries of Europe-Evidence-Based Guidelines from Germany, Austria and Switzerland LLKardReha-DACH-Part 1. *J Clin Med.* 2021;10(10):2192. [[CrossRef](#)] [[PubMed](#)]
2. Winnige P, Vysoky R, Dosbaba F, Batalik L. Cardiac rehabilitation and its essential role in the secondary prevention of cardiovascular diseases. *World J Clin Cases.* 2021;9(8):1761-84. [[CrossRef](#)] [[PubMed](#)]
3. Poffley A, Thomas E, Grace SL, Neubeck L, Gallagher R, Niebauer J, et al. A systematic review of cardiac rehabilitation registries. *Eur J Prev Cardiol.* 2017;24(15):1596-609. [[CrossRef](#)] [[PubMed](#)]
4. Mamataz T, Uddin J, Ibn Alam S, Taylor RS, Pakosh M, Grace SL. Effects of cardiac rehabilitation in low-and middle-income countries: A systematic review and meta-analysis of randomised controlled trials. *Prog Cardiovasc Dis.* 2022;70:119-74. [[CrossRef](#)] [[PubMed](#)]
5. Aragam KG, Dai D, Neely ML, Bhatt DL, Roe MT, Rumsfeld JS, et al. Gaps in referral to cardiac rehabilitation of patients undergoing percutaneous coronary intervention in the United States. *J Am Coll Cardiol.* 2015;65(19):2079-88. [[CrossRef](#)] [[PubMed](#)]
6. Abreu A, Pesah E, Supervia M, Turk-Adawi K, Bjarnason-Wehrens B, Lopez-Jimenez F, et al. Cardiac rehabilitation availability and delivery in Europe: How does it differ by region and compare with other high-income countries?: Endorsed by the European Association of Preventive Cardiology. *Eur J Prev Cardiol.* 2019;26(11):1131-46. [[CrossRef](#)] [[PubMed](#)]
7. Pesah E, Turk-Adawi K, Supervia M, Lopez-Jimenez F, Britto R, Ding R, et al. Cardiac rehabilitation delivery in low/middle-income countries. *Heart.* 2019;105(23):1806-12. [[CrossRef](#)] [[PubMed](#)]
8. Santiago de Araújo Pio C, Beckie TM, Varnfield M, Sarrafzadegan N, Babu AS, Baidya S, et al. Promoting patient utilization of outpatient cardiac rehabilitation: A joint International Council and Canadian Association of Cardiovascular Prevention and Rehabilitation position statement. *Int J Cardiol.* 2020;298:1-7. [[CrossRef](#)] [[PubMed](#)]