EDITORIAL

Cardiopulmonary Rehabilitation: The Missing Link in Heart Disease Management in Pakistan – Reminder on World Heart Day

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Globally, around 523 million people have cardiovascular disease (CVD), with a higher impact in poorer regions. The risk of major heart events in people with existing CVD is about 20-30% over five years, which is four to five times higher than for high-risk individuals without CVD. Therefore, secondary prevention is crucial, and cardiac rehabilitation (CR) is an effective approach that follows guidelines to reduce this increased risk.(1) Cardiovascular diseases are the leading cause of death in Pakistan, yet cardiopulmonary rehabilitation (CR), a proven method for improving cardiovascular fitness and quality of life, remains largely sidelined in multidisciplinary care for heart patients. On World Heart Day, observed every year on September 29, we are reminded of the urgent need to address this gap in heart healthcare.

Despite its demonstrated benefits, CR is often overlooked due to a lack of awareness among healthcare providers, limited availability of specialized programs, financial constraints, and cultural barriers. Many healthcare professionals and patients focus solely on medical interventions, unaware of how CR can reduce rehospitalization rates and improve long-term outcomes.(2)

Around the world, only a few countries have established CR programs, with low- and middle-income countries struggling more to offer these services. This highlights a pressing need for joint efforts to improve CR programs by finding new ways to deliver services, creating better referral systems, and developing supportive health policies.(3) Studies have shown that CR improves the quality of life and functional status in heart failure patients despite low participation rates. The underlying mechanisms for symptoms like dyspnea and exercise intolerance are addressed, along with strategies to enhance patient engagement in CR programs.(4) Another study focused on comparison of cardiac telerehabilitation with center-based programs and finds that telerehabilitation is similarly effective for managing cardiac risk factors and improving patient satisfaction and adherence. It identifies that telemedicine interventions often use a mix of technologies, with Phase III telerehabilitation showing greater benefits in physical activity and functional capacity compared to center-based CR. Further research is needed to confirm these findings.(5) Heart patients benefit from different exercises like aerobic for cardiovascular health, resistance training for muscle endurance, Tai Chi for balance, and supervised HIIT for fitness and many other options are available. Each exercise should be tailored to the patient's condition and monitored by healthcare professionals with multidisciplinary approach.

Few highlights from studies conducted in Pakistan: Study compared aerobic interval training (AIT) alone with AIT plus resistance interval training in MI patients. After 6 weeks, the combined AIT and resistance training group showed significantly greater improvements in peak oxygen uptake (VO2), 6-minute walk test distance (6MWT), and quality of life measures compared to the AIT-only group.(6) One scientific article examines the effects of cycle ergometer training on heart rate recovery and mindfulness in heart failure patients through a randomized controlled trial. The results showed that the training significantly improved heart rate recovery and mindfulness in patients with NYHA class I and II heart failure.(7)

Physical therapists (PTs) play a vital role in addressing these challenges. By advocating for CR's integration into heart patient care, PTs can raise awareness within the medical community, collaborate with cardiologists, and promote a team-based approach. Public education campaigns, particularly around World Heart Day, can highlight the transformative impact of CR, especially through patient success stories and targeted outreach in rural areas. Moreover, PTs can develop affordable and accessible CR programs, including tele-rehabilitation options for patients in remote regions. To ensure sustainability, PTs must also engage in policy advocacy, pushing for government support and insurance coverage for CR services, making it an essential part of heart care.

As World Heart Day emphasizes heart health globally, it presents an ideal opportunity to spotlight the need for comprehensive care in Pakistan, calling for the integration of cardiopulmonary rehabilitation into routine treatment to enhance the lives of heart patients. Preventive measures, especially regular exercise, play a critical role in reducing the burden of non-communicable diseases like heart disease. Exercise not only strengthens the heart but also helps control risk factors like hypertension, diabetes, and obesity. Through education, collaboration, and advocacy, physical therapists can lead the way in making CR a standard, life-saving component of heart disease management in the country.

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