## Cardiac Rehabilitation; a Neglected Field in Pakistan

Sir.

Cardiovascular diseases (CVD) are categorised under non-communicable diseases (NCD), which are the leading cause of death not only in Pakistan but worldwide. By 2030, approximately 23.6 million deaths will occur due to CVD. <sup>1,2</sup>In 2016, around 40.5 million deaths out of 56.9 million were due to NCD; and out of which, 32.2 million (80%) were because of cardiovascular diseases. <sup>1,2</sup>Mortality and morbidity due to CVD can be reduced by choosing appropriate treatment and preventive measures. Cardiac rehabilitation is an important intervention that can minimise the mentioned deadly numbers.

There are four phases of cardiac rehabilitation: Phase 1, which is clinical phase and is initiated right after any cardiac event or cardiacsurgery; phase 2, is outpatient rehabilitation phase, initiated upon discharge from hospital; and phase 3, is post-cardiac rehabilitation phase or maintenance phase initiated when enough cardiovascular benefits are gained through the former phases. Previously, there was another phase known as phase 4 in cardiac rehabilitation, which was also known as maintenance phase; but now, it is considered within the limits of phase 3. Cardiac rehabilitation after any cardiac event has given good clinical results, as it is an efficient way to improve quality of life and decrease mortality and morbidity rate related to cardiovascular system. 4

The reason why it is quoted as neglected field might be the low quality of cardiac rehabilitation services during phase 1 as it is the predecessor of phase 2. If a patient does not sufficiently improve in phase 1, then it is unlikely that the physician will refer the patient for phase 2 rehabilitation. The negligence and low-quality of rehabilitation services will also result in decline of patients' interests and expectations from the programme. Apart from this, there are other factors which include lack of specialised and trained rehabilitation professionals, lack of appropriate equipment in our healthcare setups, and lack of direct access to patient along with shortage of physician referrals for cardiac rehabilitation. The reason for low physician referrals might be the dearth of awareness regarding the benefits of cardiac rehabilitation among physicians.

To conclude, it is recommended to train the rehabilitation professionals in the field of cardiac rehabilitation so that they can benefit patients in an exceptionally good way. Pamphlets

and booklets should be distributed among the patients regarding the benefits of cardiac rehabilitation. As rehabilitation is a multidisciplinary approach to patient care, a good understanding between rehabilitation professionals and physicians is a must. To provide cardiac rehabilitation services in a cost-effective way, trained professionals along with desired equipment of good quality should be available in public sector hospitals.

## **CONFLICT OF INTEREST:**

The authors declared no conflict of interest.

## **AUTHORS' CONTRIBUTION:**

 $\label{eq:MMAA:Conception} \textbf{MMAA:Conception} \ and \ design, accountable for all the work. \\ \textbf{SQ:Drafting} \ and \ revision.$ 

KK: Critical analysis and final approval.

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