

# Cardiac rehabilitation is necessary for patients: Providing experiences from the launch of cardiac rehabilitation in a deprived province in Iran

Dear Editor,

We were interested in reading an article about the availability and nature of cardiac rehabilitation (CR) by province in Iran in 2018 published by Sadeghi *et al.*<sup>[1]</sup> Rehabilitation is necessary in the health system because of the world's population aging, increase in the noncommunicable diseases and physical disabilities, as well as the high prevalence of myocardial infarction and stroke. Therefore, the World Health Organization has proposed "universal health coverage with rehabilitation until 2030."<sup>[2]</sup>

CR is an outpatient guideline-recommended, multidisciplinary program of exercise, risk factor management, as well as nutritional and psychological counseling for people with cardiovascular diseases (CVD).<sup>[3]</sup> Studies have shown that participating in a rehabilitation program is associated with reduced patient anxiety, increased activity, and better control of risk factors, which improves the quality of life and decreases cardiovascular mortality and re-hospitalization.<sup>[1-3]</sup>

Despite the benefits of CR centers for patients, they still need to be available worldwide, and only 38.8% of countries have CR centers. The more significant point is that 68% of these CR centers are in high income, 23% in middle income, and only 8.3% in low-income countries. Of course, we should remember that approximately 80% of deaths due to CVD occur in countries with a mid or low socioeconomic level.<sup>[4]</sup>

Fortunately, there are CR centers in Iran. Sadeghi *et al.* mentioned in their study that until 2018, only 12 out of 31 (38.7%) provinces of the country had CR centers and 19 had no CR centers.<sup>[1]</sup> However, in the survey we

conducted, currently (in October 2023), 21 provinces of the country (67.7%) have rehabilitation centers and only ten provinces do not have these centers. It should be mentioned that the Qazvin rehabilitation center is currently inactive [Figure 1]. The significant increase in heart rehabilitation centers in Iran is very fortunate, and it is necessary to have at least one center in every province.

The most critical barriers to the broader delivery of CR in Iran include the lack of CR centers, financial resources, and human resources, as well as insufficient referral of patients to CR programs.<sup>[1]</sup> In December 2018, we launched a CR center in Birjand, the capital city of South Khorasan province, and so far about 400 patients have used the services of this center.

We share here our experiences and challenges in setting up and maintaining a CR center in South Khorasan province, one of the deprived areas of Iran.

Multiple strategies can be utilized to enhance participation in CR.

1. The lack of financial resources for the initial setup of the center: We used the potential of philanthropists active in health
2. Increasing patient referrals by interventional cardiologists, general cardiologists, and cardiac surgeons: Holding several educational webinars on CR and showing several videos of recovered patients
3. Augmenting the enrolment of patients: Using a follow-up nurse in the heart and surgery departments. On the 3<sup>rd</sup> day after the patient's discharge, they call these nurses about the condition by phone. In the phone call, they urge patients to register at the CR center
4. The possibility of using CR services for rural patients and nearby cities: Starting a hybrid CR and CR at home, about which we have not yet taken any action
5. One essential of CR is the launch of in-hospital Phase 1 and follow-up Phase III: We are preparing these two phases in our hospital and center
6. Increasing public awareness about the benefits of CR: providing educational programs on radio and television, newspapers, and celebrating World Heart Day in cities.

We hope that the necessary planning will be provided by the officials of the health system for the access of all heart patients to CR centers.

