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Case formulation and comprehensive cardiac rehabilitation programs tailored to the unique risk factors and consequences profile

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Letter to Editor

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Dear Editor-in-Chief

Obviously, cardiac rehabilitation (CR) services are very important in controlling morbidity and mortality caused by cardiovascular diseases (CVDs), and the usefulness of these programs has already been approved.[1] However, it appears that the common formats of these programs do not cover the needs of all patients and some patients are unwittingly more benefiting from it.[2] It is said that a number of patients not only have not an improvement in their health status after having participated in CR, but even suffer from increased anxiety and depression[3,4] and weight gain.[5] This situation shows that the provision of these services to all patients in a single format, without considering the risk profile of each person, cannot have the same impact on all of them. Because each patient with unique risk factors enters these programs, the risk factors profile of the two patients is not exactly the same. Therefore, we see that patients receive more than a CR program, that the framework of these programs is more in line with their medical condition.

Based on these considerations, we suggest that CR programs be comprehensively tailored to each patient's preferences and needs.[2] In other words, the design of these programs tailored to the profile of each patient's risk factors, and acute consequences could possibly improve the usefulness of it.[6] In the first step, we recommend that patients be classified based on their risk factors and illness consequences profile.[7-10] The types of CVDs risk factors include social (family and friends, residential environment, work, assets, and social support and capital), biological (aging, sex, and genetics), environmental (water and air pollution, and dust), physiological (hypertension, diabetes, and hyperlipidemia), behavioral (lack of exercise, inappropriate nutrition, and smoking), and psychological risk factors (stress and anxiety, grief and depression, and anger). In addition, the consequences of the disease include cognitive impairments.[10] In the framework of this primary comprehensive classification, CR services can be delivered in multi-level modules. Each patient may benefit from one or more levels of care services according to the risk factors/consequences profile. In other words, a patient whose risk factors belongs to just one of these categories, receive level I services for the same risk factor group. For example, an inactive patient with inappropriate nutrition who does not have a problem with the other risk factors can receive I-level services for behavioral risk factors. Level II services are provided to patients risk factors in two separate classes. For example, those who need to be protect in the physiological and psychological fields. Similarly, services of levels III, IV, V, and VI are used for patients that their risk factors are distributed in more classes. Therefore, these patients may receive services and training to quit smoking, control blood pressure or diabetes, and stress management and depression treatment.

According to previous studies that many patients have more than a heart risk factor,[11] It seems that most patients require multidisciplinary services from multiple levels. However, in this comprehensive approach, multiple levels of the services delivery are in line with the needs of patients. Choosing the right exercise, along with providing training on control and management of risk factors based on existing guidelines,[12] can reduce the outcomes of the illness for all patients. Although the services delivery protocol to some patients such as patients with heart failure is specific, we recommend using this method of services delivery for other patients at CR centers of the country.

Conflict of Interests

Authors have no conflict of interests.

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