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EDITORIAL

A New Look at the Importance of Multidisciplinary Group Interventions in Cardiac Rehabilitation

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Editorial referring to the article: Interdisciplinary Group Intervention on Nutritional Profile, Quality of Life, and Stress During Cardiopulmonary Rehabilitation: A Randomized Clinical Trial

Chronic non-communicable diseases (NCDs) are the main cause of death worldwide, being responsible for premature deaths, loss of quality of life, with great socioeconomic impact. More than 17 million (around 45%) of NCD deaths in the world are caused by cardiovascular (CV) diseases. Similar findings are found in Brazil, where 72% of all deaths are attributed to NCDs, 30% due to CV disease.[1]

There is increasing evidence that staying physically active contributes to preserve and recover physical and emotional health, and that a sedentary lifestyle is strongly related to CV disease and early mortality. In this context, the benefits of CV rehabilitation, with emphasis on physical exercise, have emerged in the literature, and correlated with a reduction in CV morbidity and mortality, significant improvement of quality of life and longer life expectancy.[2]

In addition, scientific studies have been conclusive regarding the benefits of cardiovascular, pulmonary and metabolic rehabilitation (CPMR) for individuals with CV disease, obesity, diabetes and high risk for pulmonary and metabolic diseases.[3] Akinyelure et al.[4] reported the fact of not having a healthcare visit in the past year was associated with a higher likelihood of uncontrolled blood pressure (BP) among subjects with hypertension. Understanding that several risk factors can be simultaneously modified through policies, either the complete elimination or reduction to best achieved levels in states of hypercholesterolemia, diabetes, hypertension, obesity, and smoking could prevent 0% to 7% of CV deaths.[4]

According to the South American Guidelines for CV Disease Prevention and Rehabilitation, CV diseases have a close relationship with lifestyle, as well as with modifiable physiological and biochemical factors, and have accompanied the increased prevalence of risk factors in recent decades. Thus, the changes in risk factors stimulated by CV rehabilitation, result in the reduction of morbidity and mortality from CV disease, especially in individuals classified as high risk, with favorable reductions in physical incapacity, disability, and health expenses.[5]

Several cardiac rehabilitation programs are mentioned in the literature, involving actions developed by nurses, nutritionists, physical educators, psychologists and social workers, aiming to contribute to the reduction of risk factors responsible for much of the national burden of CV disease mortality.[5]

According to the INTERHEART study, the most prevalent CV risk factor is abdominal obesity, with a 48.6% prevalence in Latin America. A high-calorie diet, rich in simple carbohydrates and saturated fats, associated with a sedentary lifestyle are responsible for this worldwide epidemic.[6] The prevalence and the incidence of overweight and obesity have increased throughout the planet at alarming levels; obesity is considered a worldwide epidemic, affecting almost a third of the world's population. Therefore, it is necessary to guide the population towards dietary education, aiming at reducing weight and abdominal fat, by decreasing energy intake, consumption of poor-quality fats (saturated and trans) and simple carbohydrates, in addition to increasing complex carbohydrates,

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fruits, vegetables, whole grains, and mono- and polyunsaturated fats.[7]

Appropriate food choices, associated with nutritionally balanced, hypocaloric diets, provides moderate amounts of fat, helping to reduce low-density lipoprotein (LDL), normalize serum triglyceride levels and reduce BP. For example, the DASH (Dietary Approach to Stop Hypertension) is a dietary pattern developed to reduce hypertension in individuals with moderate to high BP, encouraging the consumption of fruits, vegetables, whole grains, nuts, legumes, seeds, low-fat dairy and lean meats, and limited salt, caffeinated and alcoholic beverages, that has been associated with weight loss and BP lowering.[8]

Stress is currently considered a CV risk factor as important as hypertension, smoking or dyslipidemia and is clearly associated with Acute Myocardial Infarction (AMI). Stress is defined as the "situation of an individual or any of their organs or systems, which, by demanding a higher-than-normal performance, puts them at risk of becoming ill". It is a response or reaction of the organism that forces adaptations not always well tolerated or accepted and may be acute or chronic. All these changes may lead to anxiety, emotional exhaustion, depersonalization, emotional insecurity, fear of failure, chronic work stress, personality factors, character and social isolation, and ultimately depression.[5]

Unfortunately, there is not enough data on the prevalence of high stress, depression and other psychosocial problems in Latin America. Data from the INTERHEART study estimate the prevalence of chronic stress and depression of 6.8% and 36.7%, respectively, in Latin America. The study highlights the importance of establishing the degree of stress and depression suffered by patients who seek a CV rehabilitation program. The recommendations point to the identification of these groups of patients to intervene prematurely, through psychotherapy support and lifestyle changes, not only aimed at the individual, but also at family members. Measures may include group therapy, specific medication, physical activity and social engagement, all in charge of specialized healthcare professionals.[9]

The original article by Rodrigues et al.,[10] addresses the effectiveness of group interventions on the nutritional profile, stress and quality of life of patients undergoing cardiopulmonary and metabolic rehabilitation, showing a superiority of the intervention group in relation to nutritional status as compared with patients receiving standard follow-up assessment (control group). They also observed improvements in the physical aspect of quality of life in both groups studied. These findings reflect that educational interventions and adequate training is an important action in the Brazilian context, considering its impact on the reduction of CV events in this population. This study showed that CPMR contributed to the reduction of risk factors, favoring changes in habits that can contribute to preventing new cardiac events.

The objective of the intervention is to improve patient's health by preventing complications, reducing morbidity, mortality and other risk factors, and improving quality of life. Thus, the development of multidisciplinary care in CV rehabilitation is of great value to the prioritization and evaluation of investments in preventive health policies.

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