Cardiovascular diseases

Lecture

CO43-005-e

Teachers in adapted physical activity in rehabilitation pathway: Towards a better definition

T. Guiraud\textsuperscript{a,∗}, Y. Darolles\textsuperscript{b}, F. Sanguignol\textsuperscript{c}, M. Labruné\textsuperscript{d}, A. Pathak\textsuperscript{d}, Y. Eberhard\textsuperscript{e}, L. Bosquet\textsuperscript{f}  

\textsuperscript{a} Clinic of Saint-Orens, Cardiovascular and Pulmonary Rehabilitation Center, Saint Orens de Gameville, France  
\textsuperscript{b} Réseau régional de santé respiratoire Partn’air, 31650 Saint Orens de Gameville, France  
\textsuperscript{c} Clinique du château de Vernhes, SSR digestif, métabolique et endocrinien, 31340 Bondigoux, France  
\textsuperscript{d} Institute of Cardiovascular and Metabolic Diseases, National Institute of Health and Medical Research (Inserm), UMR-1048, Toulouse, France  
\textsuperscript{e} Université Joseph-Fourier, Grenoble, France  
\textsuperscript{f} Laboratoire MOVE (EA 6314), faculté des sciences du sport, université de Poitiers, 86000 Poitiers, France  

Corresponding author.

The teachers in Adapted Physical Activity (APA), usual term to define professionals in this area, is becoming increasingly common in the health care environment. Due to the changing landscape of health, interest in the profession is growing, and it is now recognized by scientific societies and governments. For a decade, teachers in APA actively involved in the multidisciplinary management of patients admitted to rehabilitation centres. They work in the three main areas of support provided by these structures (exercise training, therapeutic education and psycho-behavioral support) which is a characteristic motivating recruitment services by human resources. However, this profession still has a number of organizational limits, problems of institutional recognition, and heterogeneity in university education diploma. It therefore seems necessary to list these limits and suggest possible improvements to better structure the profession in rehabilitation centres. If the APA teachers are an integral part of the multidisciplinary team, it is urgent to put this profession in the collective agreements of health services by human resources. However, this profession still has a number of organizational limitations, problems of institutional recognition, and heterogeneity in university education diploma. Therefore, it seems necessary to list these limits and suggest possible improvements to better structure the profession in rehabilitation centres. If the APA teachers are an integral part of the multidisciplinary team, it is urgent to put this profession in the collective agreements of health services by human resources.

Results.– In stable clinical conditions and under optimal medical treatment. After cardiac rehabilitation program, central hemodynamics parameters and total peripheral resistance were assessed by the whole body bio-impedance method before and after cardiac rehabilitation.

Results.– All patients were in stable clinical conditions and under optimal medical treatment. After cardiac rehabilitation program, central hemodynamics parameters and total peripheral resistance were assessed by the whole body bio-impedance method before and after cardiac rehabilitation.

Discussion.– Our data suggests that exercise training benefits CHF patients by playing both central and peripheral hemodynamic effects. These effects seem to be fairly related to each other.

http://dx.doi.org/10.1016/j.rehab.2014.03.1062

Oral communications

CO43-001-e

The relationship between central hemodynamics and systemic vascular resistance in patients with heart failure at cardiac rehabilitation

J. Murugesan\textsuperscript{a,∗}, C. Giuseppe\textsuperscript{b}, I. Ferdinando\textsuperscript{c}, V. Maurizio\textsuperscript{d}, F. Calogero\textsuperscript{e}  

\textsuperscript{a} Department of Physical and Rehabilitation Medicine, University of Roma Tor Vergata, PTV, Roma, Italy  
\textsuperscript{b} Department of Cardiac Rehabilitation, San Raffele Pisana, Roma, Italy  
\textsuperscript{c} Department of Internal Medicine, University of Roma Tor Vergata, PTV, Roma, Italy  
\textsuperscript{d} Corresponding author.

Background.– Congestive heart failure is a major cardiovascular syndrome with increasing incidence and prevalence. Cardiac rehabilitation is a valuable non-pharmacologic intervention for improving aerobic fitness and overall health status in patients with CHF, but controversy persists regarding the type and degree of exercise that optimally promotes the adaptation in central hemodynamics and peripheral vascular resistance.

Methods.– The potential study subjects were outpatients (2012–13) with diagnosis of CHF who attended the cardiac rehabilitation program. The final study population (n = 40; 67.9 ± 8 yrs) completed 8 weeks of aerobic interval training. Non-invasive central hemodynamics parameters and total peripheral resistance were assessed by the whole body bio-impedance method before and after cardiac rehabilitation.

Results.– All patients were in stable clinical conditions and under optimal medical treatment. After cardiac rehabilitation program, central hemodynamics changes were statistically significant: stroke volume increased from 74.98 ± 22.3 to 79.75 ± 21.24 ml (P < 0.003), Total peripheral resistance decreased from 1821.0 ± 455.45 to 1706.0 ± 521.25 (P < 0.036) and heart rate decreased from 60.42 ± 8.75 to 57.9 ± 8.64 bpm (P < 0.01). There was a negative, significant correlation between changes observed for stroke volume (r = -0.429, P < 0.006), cardiac output (r = -0.644, P < 0.000) and heart rate (r = -0.543, P < 0.000) with total peripheral resistance.

Discussion.– Our data suggests that exercise training benefits CHF patients by playing both central and peripheral hemodynamic effects. These effects seem to be fairly related to each other.

http://dx.doi.org/10.1016/j.rehab.2014.03.1063

1877-0657/$ – see front matter