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Self-efficacy and personality traits relations with body composition after a phase II of cardiac rehabilitation

Manuel Luis Mellado Fernández(1), AJ Madueño Caro(2), E Otero Chulián(3), J Delgado Pacheco(3), M Pardo Lafarga(2), M Muñoz Ayllón(2), M Pajares Vinardeli(4)

(1) Casines Primary Care Centre, Puerto Real (Cádiz), Spain

(2) La Laguna Primary Care Centre, Cádiz, Spain

(3) Department of Cardiology, Unit of Cardiac Rehabilitation, Puerta del Mar Univers

(4) Department of Nuclear Medicine, Puerta del Mar University Hospital, Cádiz, Spain

Corresponding author: Dr Manuel Luis Mellado Fernández, Andalusian Health Service, Centro de Salud Casines, Puerto Real, Spain. E-mail: manuel.mellado@comcadiz.es

Background: The success of a comprehensive cardiac rehabilitation program depends among other factors on the correct compliance from the patient. Perceived self-efficacy, defined as people's beliefs about their capabilities to complete tasks and reach goals, and personality traits can influence the outcomes. Different biotypes have been largely associated with aptitude for exercise and cardiovascular risk. **AIM:** Detect personality traits associated with bigger self-efficacy and its relation with body composition after a comprehensive cardiac phases I and II rehabilitation program.

Method: S: Transversal study within one visit following the phase II of the CRP. Self-efficacy was assessed by Baessler & Schwarner and Salamanca quiz for personality traits, Beck and Hamilton quizzes for depression and anxiety severity. Body composition measurements taken were: body mass index (BMI), components of somatotypes, total fat and muscle mass (MM). Doupe formula was used for muscle mass and both Behnke & Wilmore (BW) and Faulkner (F) formulas for total fat.

Results: 86 patients were included. Self-efficacy was negatively correlated to anxiety ($p=0,0018$) and depression ($p=0,0012$) as well as with dependent, impulsive unstable, borderline unstable, antisocial and esquizotypic personality traits. Higher levels of anxiety was correlated to more fat ($p=0,0031$), endomorphic biotype ($p=0,0093$) and less MM ($p=0,0349$), meanwhile severity of depression had a direct correlation with fat and endomorphic biotype ($p=0,046$), but not with MM. The personality trait more related to an endomorphic predominance and to a less ectomorphic component was the borderline unstable one, as long as the patients with higher paranoid scores had higher BMI. As we expected, higher BMI was correlated to a predominance of the endomorphic and mesomorphic over the ectomorphic component, as well as higher fat. The endomorphic component was associated with more body fat and less MM.

Conclusions: Personality traits can predict a better or worse outcome in body composition and influence the self-efficacy to maintain healthy lifestyles.