

Relationship between functional physical fitness, physical activity level and health related quality of life in sedentary older women

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INTRODUCTION

Physical Activity (PA) and physical and functional fitness contribute to a better Health Related Quality of Life (HRQL) among older individuals (Physical Activity Guidelines Advisory, 2008). However, only precise field diagnosis will allow governmental institutions to take decisions about the implementation of physical exercise programs. Thus, this study aimed to characterize a representative sample of the Portuguese Algarvian west sedentary older women population, regarding functional physical fitness, PA and HRQL. Moreover, the study examine the associations between these variables in the studied population.

METHOD

This observational, descriptive, analytical and cross-sectional study included 422 sedentary older women (75.51 ± 7.37 years old) living in the Algarvian west. Evaluations comprised body mass index (BMI), waist circumference (WC), levels of strength (dynamometry), aerobic fitness (6-minute walk test), PA level (modified Baecke questionnaire) and the HRQL (“Medical Outcomes Study 36 Item Short-Form Health Survey” questionnaire).

RESULTS

Significant differences were detected between individuals presenting normal weight versus overweight versus obese with respect to physical

function ($p=0.020$; $\eta^2=0.023$), bodily pain ($p=0.000$; $\eta^2=0.051$), general health ($p=0.007$; $\eta^2=0.003$), vitality ($p=0.002$; $\eta^2=0.034$), and physical component ($p=0.001$; $\eta^2=0.002$) of HRQL, in which the obese group showed the worst results, and the normal weight the best results. There were also differences between individuals presenting higher versus lower cardiovascular risk (CV) in physical performance ($p=0.020$; $\eta^2=0.011$), bodily pain ($p=0.000$; $\eta^2=0.042$), vitality ($p=0.003$; $\eta^2=0.021$), social function ($p=0.023$; $\eta^2=0.017$), and in physical ($p=0.001$; $\eta^2=0.001$) and mental components ($p=0.010$; $\eta^2=0.000$) of HRQL, with the lower CV group showing the best results. Correlations analysis showed significant associations between the studied variables for normal weight, overweight and obese groups, in which the strongest correlation was between aerobic fitness and the dimension physical function of HRQL in the obese group ($r=0.735$).

CONCLUSIONS

Higher weight or a wider WC implies a worse HRQL, but obese individuals with better aerobic fitness, have fewer physical limitations in carrying out activities.

REFERENCES

Physical Activity Guidelines Advisory (2008). Physical Activity Guidelines Advisory Committee Report. Health (San Francisco). Washington, DC: U.S.: Department of Health and Human Services.