

Association Between Health-Related Quality of Life, Obesity, Fitness, and Sleep Quality in Young Adults: The Cuenca Adult Study

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Objective: The objectives of this study were to examine in university students: (a) the mean differences in the HRQoL among fat mass percentage, cardiorespiratory fitness (CRF) and sleep quality categories; and (b) the independent associations among fat mass percentage, CRF, and sleep quality with HRQoL. **Participants:** 376 students, 18-30 years old, from the University of Castilla-La Mancha in Cuenca, Spain (during 2009-2010). **Method:** Cross-sectional study measuring % fat mass (DXA), CRF (20-m shuttle run test), sleep quality (Pittsburgh Sleep Quality Index), and HRQoL (SF-12 questionnaire). **Results:** The mean in Mental Component Summary (MCS) in men ($p = .029$) was lower in students in upper quartiles of % fat mass than in peers in other categories of % fat mass. Among men, MCS was significantly lower among those in the lowest quartile of CRF ($p = .015$), and among women, Physical Component Summary (PCS) was significantly lower among those in the lowest quartile of CRF ($p = .047$). MCS dimension of the HRQoL was lower in both men ($p = .001$) and women ($p < .001$) in upper quartiles of sleep quality. Multiple linear regression models showed that in men, CRF was associated with MCS ($\beta = 0.25$, $p = .031$), and sleep quality was associated with PCS ($\beta = 0.24$, $p = .027$) and MCS ($\beta = 0.38$, $p < .001$). In women, CRF was associated with PCS ($\beta = 0.17$, $p = .018$) and sleep quality with MCS ($\beta = 0.44$, $p < .001$). **Conclusions:** Finally, our findings suggest that, regardless of adiposity and fitness, having good sleep habits may positively influence the quality of life in young adults. © 2018

