

COMPARISON BETWEEN PHYSICAL ACTIVITY LEVELS IN RURAL AND CITY ELDERLY WITH MTI ACTIGRAPH.

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Introduction: The quantification of physical activity in the elderly has been assuming a relevant role in the attempts to minimise and control problems related to functional decline and sedentary habits. The physical activity (PA) recommendation of accumulating 30 min of moderate-to-vigorous physical activity (MVPA) is necessary to promote optimal health benefit. Since the pattern of physical activity is usually different between urban citizens and the rural workers throughout life, it is important to assess how different it remains after retirement. Research into daily PA patterns of older adults (8805;65 years) has primarily relied on self-report. This study used accelerometers, an objective measure of minute-by-minute movement, to assess PA volume and intensity performed by older adults in different regions. The main aim of this study is, therefore, to analyse the pattern of PA performed by the elderly from rural communities and by the elderly from urban communities in their daily routine, and to compare it with the recommendations pre-established by literature on the subject. Methods: The sample was divided into two different groups aged between 66-91 yr (average age=77,52±6,5 years old), 33 of them constitute the rural group (RG) and the remained 42 belong to the city one (CG). The Physical activity levels were directly measured for seven consecutive days using a MTI Actigraph accelerometer model 7164. The assessment of the level of physical activity performed by each individual has been carried out using the values suggested by Freedson et al. (1998). The habitual physical activity performed by the groups has been monitored and registered throughout a complete week, being, thus, obtained the results of their activity performed both on week days and weekend. The statistical procedures were the Descriptive Statistics (mean, standard deviation and frequency distribution) and a Student t-test was used to compare groups (rural, urban) on the physical activity (PA) performances. Results: The results provided are: (i) The mean PA at a week by hour was higher in the rural group ($p < 0,001$); (ii) Total mean of PA at a week by hour was higher in the rural group ($p < 0,01$);(iii) The average minutes of lower PA at a week was higher in the urban group ($p < 0,001$); (iv) The average minutes of lower PA at a week-end was higher in the urban group ($p < 0,001$); (v) no statistics significance between groups was found in moderate PA and in vigorous PA. Conclusion: We conclude that the groups has a different profile of performance in PA with distinct intensities: Urban perform better than rural when the PA is lower. There was no statistic significance wen the intensity is moderate or vigorous.