ABSTRACT

The consequences of overweight are associated with medical conditions that increase morbidity and mortality of populations (including diseases such as diabetes mellitus non-insulin dependent, coronary heart disease, hypertension and various types of cancers), so the contribution of a healthy and balanced diet as well as the regular practice of physical activity (PA) are key factors in its prevention. However, despite this being widely documented problem, several specific population groups still remain to be evaluated. In Portugal, for example, there are no studies on the prevalence of obesity in the prison population. The latest statistics from the Prison Services of 15 January 2012, reported a population of 12,793 inmates, of which 5.6% are women.

This dissertation aimed to investigate the prevalence of overweight in prison, and his association with inadequate nutritional intake and PA.

Were invited to participate in this study 250 women in the Special Prison of Santa Cruz do Bispo (EPESC). Accepted 60 and our sample included 47 women. Collects socio demographic and lifestyle (age, number of children, education, criminal legal status, labour in the EPESC, smoking, body weight and height). The body mass index (BMI) was calculated and categorized according to the World Health Organization (WHO) classification of BMI, women with overweight and obesity were grouped into one category for comparative analysis with the group without overweight. Dietary intake was assessed using a semi-quantitative food frequency questionnaire (FFQ). To determine the prevalence of inadequacy of macro and micronutrients, we used the WHO recommendations of 2003 and the Food and Nutrition Board [Estimate Average Requirements (EAR) and Adequate Intake (AI)]. To assess PA, the inmates used over 7 consecutive days an accelerometer (ACL); PA was categorized as moderate activity, vigorous and very vigorous, and compared on days with and without physical education classes (PE).

The average age of inmates is 36.7 years, 46.8% have an education level equal to or less than 4 years, 53.2% have up to 2 children, 74.5% of women are condemned, 70.2% are smokers (86.7% are not overweight and 62.5% are overweight).

When analyzing the total energy intake, there are no differences in the value of the total energy, but per kg of body weight when compared the inmates with and without overweight (23.4 kcal/kg and 31.6 kcal/kg, respectively, p <0.001).

For the comparison of nutritional intake with the recommendations, we found a high prevalence of inadequacy: folate (87.5% for the inmates not overweight and 86.7% for inmates who are overweight), pantothenic acid (71.9% for the inmates not overweight...
and 73.3% for inmates who are overweight) and vitamin E (100% for the inmates not overweight and 96.9% for inmates who are overweight). We emphasize the vitamins D and K, and molybdenum, in which all (100%) of inmates have a lower than recommended intake. Comparing the inadequacy between groups with and without excess weight, there were no significantly different distributions.

When we add the activity of inmates for a total of moderate physical activity, vigorous and very vigorous (AFMVMV) among inmates who attend PE classes, we found that women without overweight have higher average values, [31.17 minutes, standard deviation (sd) 22.40], than the current recommendations for physical activity (PA), and that values reported by women with excess weight (27.12 minutes, sd 21.34), despite the differences observed were not statistically significant.

In conclusion, it was very high the prevalence of overweight and there was no statistically significant differences between the group of inmates with and without excess weight to the characteristics studied of inadequate nutritional intake and PA.