

Abstract

Dietary Intake of Female Aesthetic Athletes [†]

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Abstract: Dancers are considered aesthetic athletes due to the great emphasis directed towards maintaining svelte figures with the aim of enhancing the aesthetic of performance. Ballerinas are consistently found 10–12% below their ideal body weight and are susceptible to the female athlete triad. Still, while the dietary intake of several sports populations has been extensively studied worldwide, in the dance arts data are limited. The aim of this study was to assess the dietary intake of adult female dancers on a small Mediterranean island. All dance schools in Gozo ($n = 7$) were invited to participate via email. A 4 day food and beverage diary recorded between Thursday and Sunday was used to assess the dietary intake of eligible students and teachers of dance schools. A self-reported questionnaire was used to assess demographic data and exercise energy expenditure, adapted from the ‘International Physical Activity Questionnaire’. Participants’ energy and macronutrient intakes were compared to the recommended dietary allowances (RDA) using the one sample t -test. The paired samples t -test was used to determine any significant differences in dietary intake between weekdays and the weekend. Of a potential 25 eligible participants, 14 engaged in the study yielding a 56% response rate. The majority of participants were recreational dancers ($n = 11$). The mean energy intake was 1306 kcal/day with 34.7% derived from fat. The mean carbohydrate and protein intakes were 2.4 g/kg bodyweight and 1.1 g/kg bodyweight, respectively. The mean total energy expenditure was 2034 kcal/day. The daily mean energy, carbohydrate and protein intakes were lower than the RDA, while mean fat intake was higher. There was no evidence of a significant difference in dietary intake between weekdays and the weekend ($p = 0.309$ carbohydrates, $p = 0.596$ fat, $p = 0.956$ protein). Professional dancers failed to meet energy, carbohydrates and protein recommendations for athletic populations, whereas, recreational dancers were likely to consume sufficient energy, carbohydrate and protein intakes. Dietary fat recommendations were met by half of the participants and exceeded by the rest. This study was the first to assess the dietary intake of a dance population in the Maltese Islands. Further research in a larger cohort of local dancers is merited.

Keywords: dietary intake; dancers; aesthetic athletes; Mediterranean



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