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Dietary intake and food pattern of Saharawi refugee children in Tindouf (Algeria)

G. Domenech, S. Escortell, R. Gilabert, L. González-Osnaya, M. Lucena, M. C. Martínez and J. M. Soriano

Area of Nutrition and Food Safety in Developing Countries, Laboratory of Food Chemistry and Toxicology, Faculty of Pharmacy, University of Valencia, Av. Vicent Andres Estelles s/n., Burjassot, Spain

The Saharawi refugee camps, including Dakhla, Smara, Al-Uyun and Awsard, are located in the harsh desert 30 km from Tindouf, the most westerly town in Algeria. They have been the home of 150 000 and 200 000 refugees, including approximately half the indigenous population of Western Sahara, since 1976. International aid groups provide water to the camps, as well as food, medicine and other basic supplies. The aim of the present study was to evaluate the anthropometric measurements, dietary intake and food pattern of Saharawi refugee children in Tindouf.

The height and weight and BMI were determined for 132 boys (mean age 9.1 (SD 1.8) years) and 104 girls (mean age 9.2 (SD 2.2) years). Furthermore, dietary intake and food pattern were evaluated using a dietary-record method and a semi-quantitative FFQ. A Student's *t* test was used to analyse the differences between genders.

The dietary intake data indicated a deficiency in several micronutrients, i.e. Fe, vitamin A and Zn. Furthermore, the findings show the presence of chronic malnutrition (32%), overweight (2%), anaemia (53%), coeliac disease (2%) and intestinal parasitic infections (*Giardia lamblia*, *Hymenolepis nana* and *Blastocystis hominis*; 45%). According to the basic food basket the frequency of consumption (%) was: wheat flour (bread, couscous and pasta) 90, meat 82, rice 65, canned fish 45, honey 12, milk 14, lentils 10, lettuce 10, tomato 10, potato 10, cheese 7, egg 5, hazelnut chocolate confection 4, jam 2, butter 2, olive oil 2, biscuits 2, chocolate drink mix 2, cola soft drink 2, apple 2, banana 2, dates 2. Access to additional food items was limited and fresh food was scarce.

The present study will be used to provide advice for the 'Vacations in Peace' programme, which is an annual holiday programme established by a number of Spanish solidarity associations (Friends of the Saharawi Country) in partnership with the Union of Polisario Youth in the refugee camps that allows between 7000 and 10 000 Sahrawi children between the ages of 8 and 13 years to be hosted by Spanish families in their homes for a 2-month period during the summer. The advice provided to 'Vacations in Peace' will be used to improve and adapt the diet of Saharawi children during their period of stay in Spain (summer months) according to eating habits, stage of growth and development and physical and/or pathological circumstances.