Associations of vitamin D intake and other risk factors with 25-hydroxyvitamin D concentrations in ethnic minority adults living in the UK

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In recent years, there has been an increase in the rate of vitamin D deficiency among ethnic minority groups living in UK due to reduced sun exposure and low dietary intake of vitamin D. It therefore follows that the aim of this study is to determine diet and lifestyle factors adopted by different ethnic minority adults from Manchester, that are associated with an increased risk of vitamin D deficiency. A self-reported questionnaire was used to assess vitamin D intake, sun exposure behaviours and lifestyle factors. Vitamin D status was assessed by measuring serum 25(OH)D concentrations. Overall, seventy-four participants have had their vitamin D status checked and have completed the study. Among study participants, serum 25(OH)D level was 34.2, 28.7 and 29 nmol/l for Arab, South Asian and Black African groups, respectively. The mean vitamin D intake estimated by the food frequency questionnaire was 2.31 µ/d for Black Africans, followed by South Asians (1.75 µ/d) while the lowest vitamin D intake was found to be among Arabs. The average of the usual sun exposure was approximately 90 minutes a day for whole samples. Other possible risk factors for vitamin D deficiency included low use of supplements (81%) being overweight or obese (60% Arabs and 46% South Asians); the percentage of smoker and alcohol intake were higher among Black Africans compared with other ethnic groups (45%). Ethnic differences in diet, clothing, and religious customs might be responsible for the higher prevalence of vitamin D deficiency among minority ethnic adults especially Arabs and South Asians. Further, research focusing on the barriers to seek health is conducted among this at-risk population, to develop effective policy interventions and awareness campaigns.

Biography

Mona Almujaydil is currently pursuing PhD in Human Nutrition at Manchester Metropolitan University, Manchester, United Kingdom. She has completed her Master's Degree in the Field of Human Nutrition from 2010-2011 at Heriot-Watt University and Bachelor of Science in the field of Nutrition and Food Science from King Abdul Aziz University, Saudi Arabia.

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