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Factors associated with low vitamin d status among older adults in Kuwait

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Low vitamin D levels among older people represent a significant health problem worldwide. This study aimed to examine the factors associated with vitamin D deficiency in older people (aged ≥ 65) in the Kuwaiti population. A cross-sectional study was conducted in seven primary healthcare centers across Kuwait (November 2020 to June 2021). The participants (n = 237) had their serum vitamin D (25(OH)D) concentrations (analyzed using LC-MS) classified as sufficiency 75 nmol/L (30 ng/mL) or deficiency < 75 nmol/L (below 30 ng/mL). The data were collected using self-administered questionnaires and face-to-face interviews with participants in geriatric clinics. Binomial logistic regression analysis was applied to assess factors associated with vitamin D deficiency. Vitamin D deficiency was found to be present in two thirds of the participants (n = 150, 63%), with a higher prevalence of deficiency in participants who did not receive vitamin D supplements, compared to those who did (84% vs. 16%, p = 0.001). The results from the binary logistic regression showed that a low duration of sun exposure (OR = 0.24, 95% C.I. [0.08–0.7], p = 0.011), dark skin pigmentation (OR = 4.46, 95% [1.35–20.49], p = 0.026), and lower caloric intake (OR = 0.9, 95% C.I. [0.85–0.96], p = 0.001) were risk factors for vitamin D deficiency. Furthermore, a significant inverse relationship was found between vitamin D levels and parathyroid hormone (PTH) levels (OR = 1.16, 95% C.I. [1.04–1.31], p = 0.016). These findings support the recommendation that vitamin D supplementation and adequate sunlight exposure are necessary for raising low vitamin D levels in older people in Kuwait.

Keywords: 25-hydroxyvitamin D; Kuwait; cross-sectional study; older people; vitamin D; vitamin D deficiency.

Biography

Thurayya Albuloshi, University of Reading, UK, is a public health researcher specializing in nutritional epidemiology and aging populations. Her work focuses on identifying micronutrient deficiencies among older adults, with a particular emphasis on improving vitamin D status and community health outcomes.

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