

Abstract

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Effect of micronutrient supplementation on mood in nursing home residents.

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BACKGROUND: One third of older people in nursing and/or residential homes have significant symptoms of depression. In younger people, deficiencies in selenium, vitamin C and folate are associated with depression. This study examines the association between micronutrient status and mood before and after supplementation.

OBJECTIVE: The objective was to determine whether the administration of selenium, vitamin C and folate improved mood in frail elderly nursing home residents.

METHODS: Mood was assessed using the Hospital Anxiety and Depression rating scale (HAD), and Montgomery-Asberg Depression Rating Scale (MADRS). Micronutrient supplementation was provided for 8 weeks in a double-blinded randomised controlled trial.

RESULTS: Significant symptoms of depression (29%) and anxiety (24%) were found at baseline. 67% of patients had low serum concentrations of vitamin C, but no-one was below the reference range for selenium. Depression was significantly associated with selenium levels, but not with folate or vitamin C levels. No individual with a HAD depression score of ≥ 8 , had selenium levels >1.2 microM. In those patients with higher HAD depression scores, there was a significant reduction in the score and a significant increase in serum selenium levels after 8 weeks of micronutrient supplementation. Placebo group scores were unchanged.

CONCLUSION: This small study concluded that depression was associated with low levels of selenium in frail older individuals. Following 8 weeks of micronutrient supplementation, there was a significant increase in selenium levels and improved symptoms of depression occurred in a subgroup.

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