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| **Dietary patterns associated with adiposity and bone mineral density in older urban black South African women** |
| **Objective**: Studies identified a significant association between lifestyle and obesity, as well as bone health with ageing. There is limited information about the association between dietary patterns and body composition among older black South African (SA) women from low-income communities. The purpose of this study was to investigate the association between dietary patterns and measures of adiposity (body mass index, waist circumference, percentage body fat), as well as bone mineral density (BMD) in a group of black SA women of low socio-economic status.  **Methods**: Urban black postmenopausal women ≥ 50 years old (n=142) from a low-income living area were included. Weight, height and waist circumference were measured and socio-demographic and health data were recorded. Physical activity was assessed by validated questionnaire. Bone mineral density, body fat and lean mass were measured by dual energy X-ray absorptiometry (DXA) and dietary data were collected by quantitative food frequency questionnaire and validated food photo books to estimate portion sizes. Nutrients and foods were analysed using the South African Medical Research Council Food Finder software® based on South African food composition tables. Principal component analysis was used to identify dietary patterns (DPs). Differences between body composition variables by tertile scores for the DPs identified were assessed. Associations between DPs, total intake of milk and milk drinks, as well as sugar sweetened beverages (SSBs) with body composition were also assessed with adjustment for socio-demographic and lifestyle data.  **Results**: Three dietary patterns were identified, namely the ‘home cooking’ pattern, ‘processed foods and snacks’ and a monotonous ‘breads’ pattern. Highest scores on the ‘processed foods and snacks’ DP was significantly associated with measures of adiposity, while the other two DPs showed no association with either adiposity or BMD. Total milk drink intakes were positively associated with BMD, whereas total SSB intakes were not significantly associated with either adiposity or BMD in the women. In regression models the ‘processed foods and snacks’ DP was positively associated with waist circumference and percentage body fat.  **Conclusions**: Dietary advice should focus on lower intakes of processed and snack foods and higher intakes on milk and milk drinks for a more optimal body composition among older black women of low socio-economic status in SA. |