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Dietary fibre intake in Kuwaiti older adults assessed by validated food frequency questionnaire

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Adequate dietary fibre (25-30g/day) is essential in a healthy diet preventing several health problems⁽¹⁾. Age-related changes reduce gut function and increase risk of constipation. A better understanding of fibre in those over 60y is required. This study aimed to measure fibre intake in those over 60y in Kuwait using the Kuwaiti Food Frequency Questionnaire for fibre (KWFFQ-DF) and explore local food sources of fibre and laxative use.

Recruitment was conducted Dec 2022 to April 2023 in Geriatric Health Services in Kuwait and geriatric units across the six main governorates in Kuwait. The study was approved by the University of Glasgow Research Ethics Committee (project No. 200220066) and the Medical Research Ethics Committee of the Ministry of Health in Kuwait (project No 9512018)18). The validated KWFFQ-DF assessed intake of total fibre (TDF), soluble fibre (SF) and insoluble fibre and included seven food groups and 134 food items. The last two questions asked if the participant consumed supplementary fibre and if they took laxatives (type and amount). The associations between fibre intake and gender, age and governorate and between TDF and laxative use were assessed by Chi squared test ($P < 0.05$ considered significant).

The study recruited 210 people (61 males and 149 females; 61- 96y (median 66y). BMI ranged from 18 to 68 (median 29). Mean TDF intake was 28.7 g/d (SD 6.6; 13 to 46 g/ day). Most participants (n= 186, 89%) did not use laxatives. Several foods high in fibre were frequently consumed by participants including dates, as a snack with coffee eaten 2-6 times/day at 2.2 g TDF per portion and almonds once a day as a snack with 12 g of TDF. Whole grain toast, eaten 1-2 times daily contributed 4g TDF but with eggs or cheese at breakfast so higher in fat. Other key sources were barley bread, (8g TDF), vegetable soup, 2-4 times a week (4 g/d TDF) and Tabouleh Salad, typically eaten with grilled meat or chicken at 2g/d TDF. There was no significant association between fibre intake and gender ($\chi^2= 1.033$; $P < 0.597$) or governorates ($\chi^2= 14.66$; $P < 0.145$). However, the findings identified a significant association between fibre intake and age of participants ($\chi^2= 10.066$; $P < 0.039$). Moreover, there was a highly significant negative association between the TDF intake and laxative use frequency ($\chi^2= 25.63$, $P < 0.001$).

In contrast to some populations, fibre intake for people in Kuwait over 60y is within dietary guidelines and laxative use is low. Foods high in fibre in Kuwaiti cuisine can be, however, associated with high calories due to the sugar and fat content and may be associated with high BMI. The consequences of this need to be explored.

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Reference

1. Stephen AM (2017) *Nutr Res Rev* 30(2) 149–190.