The food and nutrient intake and nutrition knowledge of pregnant and recently pregnant women in Australia with Chinese-speaking background: a cross-sectional analysis

S. Fenton[1,2], K.J. Ooi[1,2], A. Young[3] and C.E. Collins[1,2]

[1]*School of Health Sciences, College of Health, Medicine and Wellbeing, University of Newcastle, Callaghan, New South Wales, Australia*

[2]*Food and Nutrition Research Program, Hunter Medical Research Institute, New Lambton Heights, New South Wales, Australia*

[3]*Multicultural and Refugee Health, Hunter New England Local Health District, Wallsend, New South Wales, Australia*

Maternal diet during pregnancy influences the short- and long-term health of mothers and their offspring[1]. Pregnant women from culturally and linguistically diverse (CALD) backgrounds potentially have challenges achieving a healthy diet due to language barriers, cultural differences and poor nutrition knowledge. Data from 2021 shows that ~7200 women who gave birth in Australia were of Chinese background[2], however, data on the dietary patterns and nutrition knowledge of pregnant women in Australia from CALD backgrounds are limited. This pilot, cross-sectional study aimed to: assess the food group, nutrient intakes and diet quality of pregnant/ recently pregnant women in Australia with Chinese-speaking backgrounds, compare the intakes with national nutrition recommendations, and assess the nutrition knowledge of the women. Participants were recruited in partnership with Hunter New England Local Health District Multicultural and Refugee Health to complete an online survey, which was translated to simplified Chinese language. Eligible participants were pregnant women and women who had given birth in the previous 12-months, who were living in, but not born in Australia, who were ≥ 19 years, and primarily spoke a Chinese language. Dietary intake was assessed via the Australian Eating Survey, diet quality via the Australian Recommended Food Score (ARFS), and nutrition knowledge via a questionnaire adapted from the General Nutrition Knowledge Questionnaire. Food group serves, macronutrient, micronutrient and energy intake, and diet quality were reported as median (IQR) due to non-normal distributions. Intake of food group serves, macronutrients and micronutrients were compared with national nutrition recommendations. The mean (SD) nutrition knowledge score out of 23 was reported. Fifty participants (31.8 ± 4.3 years, mostly pregnant (66%), born in China (66%) with Mandarin as first language (62%)) reported median consumption of all five food groups below recommendations, with the poorest alignment for grain (4%) and dairy foods (4%). Median consumption of carbohydrate (46.5% EI), fat (34.5% EI) and protein (20.0% EI) met recommendations for pregnant women, but not saturated fat (12.5% EI) or dietary fibre (18.6 grams). The alignment of 16 micronutrients from food intake to recommendations was poor, particularly for iron (4%) and iodine (12%). The highest alignment to recommendations was for vitamin C (92%) and retinol (78%). The median (IQR) ARFS was 23 (18, 39) points out of 73, indicating poor overall diet quality. The mean (SD) nutrition knowledge score was 10.2 (2.9) out of 23. This sample of pregnant and recently pregnant women living in Australia with Chinese-speaking background reported suboptimal food group and nutrient intakes and overall diet quality that does not align with national nutrition recommendations. The low nutrition knowledge score suggests poor knowledge of pregnancy dietary recommendations. These findings warrant further investigation in larger samples of pregnant women from CALD backgrounds with regard to dietary intake and nutrition knowledge.

References

1. Kibret KT, Chojenta C, Gresham E *et al.* (2019) *Public Health Nutr* **22**(3), 506–520.
2. Australian Government Australian Institute of Health and Welfare (2023) Australia's mothers and babies: Maternal country of birth 2023 https://www.aihw.gov.au/reports/mothers-babies/australias-mothers-babies/contents/demographics-of-mothers-and-babies/maternal-country-of-birth