Concurrent Session 2: Dietary Intake

Dietary intake and 24-hour excretion of sodium and potassium
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**Background** – There is little recent data on the dietary intake of sodium (Na) and potassium (K) in the Australian population. The best method for assessing dietary Na is 24-hour urine collections, which require a high level of subject co-operation. Dietary assessment can provide an estimate of Na intake but the association between dietary assessment and urinary measurement in Australian community dwelling adults is not known.

**Objective** – To determine the dietary intake of Na and K measured by 24-hr urinary excretion (UNa and UK) and 24-hr dietary recall (Diet Na and Diet K).

**Design** – Adults recruited to dietary intervention studies had dietary intake measured using a 24-hr recall (analysed with FoodWorks) and provided a single 24-hr urine collection, whilst on their usual diets.

**Outcomes** – Of the 144 participants, 85% (54 females (F), 69 males (M)) had UNa over the suggested dietary target (SDT) of 70mmol/day and 62% (32 F, 57 M) were over the upper limit (UL) of 100mmol/day.

Only 19% of participants (5 F, 23 M) met the SDT for K (120mmol/d). Those with two 24hr recalls at baseline (n=88), Diet Na and Diet K were significantly correlated with UNa and UK (r=0.391; B(se)=0.018(0.005); P=0.0001 and r=0.579; B(se)=0.500(0.076); P=0.0001, respectively). BMI was also significantly correlated with UNa (r=0.397; B(se)=5.293(1.318); P =0.0001).

**Conclusions** – Most participants exceeded the UL for Na and few met the SDT for K. Dietary assessment was correlated with urinary output. Body size was a predictor of UNa and with the increasing BMI of the population, meeting the SDT for Na and K presents a great challenge.

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Differences in nutrition knowledge and dietary intake in two South Australian communities of differing socio-economic status
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**Background** – Current scientific literature has yet to provide strong support for the role of nutrition knowledge in influencing food intake behaviours. This relationship may have been prematurely rejected, as previous measures of nutrition knowledge used have lacked validity and reliability; and measuring dietary intake is notoriously difficult.

**Objective** – Test a valid and reliable measure of nutrition knowledge to assess the relationship between knowledge and dietary intake in two South Australian communities of differing socio-economic status (SES).

**Design** – Nutrition knowledge was measured in two community groups in South Australia: a lower SES sample (Low-SES, n = 118) and a higher SES sample (High-SES, n = 96). Dietary intake was measured within a smaller sub-sample of the two groups by validated food frequency questionnaire (FFQ) and assessed using a diet quality index and food group analysis.

**Outcomes** – Low-SES scored significantly lower on three of the four knowledge areas: specifically, knowledge of the sources of nutrients, choosing everyday foods and knowledge of diet-disease relationships (p<0.001). Overall, the total nutrition knowledge score (out of a possible 113) was almost 13 points lower for Low-SES compared to High-SES (a notably significant difference; p<0.001). Preliminary analysis of reported dietary intake (FFQ) suggests that individuals from the lower SES community were consuming less fruit and vegetables, more high sugar, low fibre carbohydrates foods and less variety in their food choices.

**Conclusions** – Nutrition knowledge levels differed significantly between community samples of differing SES. Differences in diet quality appear to be present. Further analysis will be conducted on the strength of the relationship between nutrition knowledge and dietary intake and located within the context of other factors that impact upon dietary behaviour.