Article

Socio-demographic and health indicators of diet quality in pre-frail older adults in New Zealand

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Supplementary Material

**Materials and Methods**

**Figure S1** Summary of systems and changes implemented for cleaning Intake24 data.

**Table S1.** Multivariate regression against DQI-I score and subcomponents for Low Energy Reporter (LER) only.

| **Demographic and health variables** | **B** | **95% Wald CI** | ***p*-value** |
| --- | --- | --- | --- |
| **DQI-I total score** |  |  |  |
| (Intercept) | 58.567 | 52.248, 64.887 | *<0.001* |
| Live alone; (reference: with others) | 2.480 | -0.300, 5.260 | 0.080 |
| Alcohol consumption (never; reference: regular) | -2.382 | -5.921, 1.156 | 0.187 |
| (Occasional; reference: regular) | 0.680 | -2.404, 3.764 | 0.666 |
| Vision (impaired; reference: non impaired) | -3.890 | -9.254, 1.474 | 0.155 |
| Deprivation (low; reference: high) | 2.436 | -1.027, 5.898 | 0.168 |
| (Medium; reference: high) | 2.125 | -1.208, 5.457 | 0.211 |
| (Scale) | 68.016 | 54.281, 85.226 |  |
| **Variety score** |  |  |  |
| (Intercept) | 7.743 | 3.259, 12.227 | *<0.001* |
| Live alone; (reference: with others) | 0.987 | -0.086, 2.059 | 0.071 |
| Waist circumference, cm | 0.027 | -0.015, 0.069 | 0.207 |
| GDS score (no depression; reference: depression) | 0.894 | -0.473, 2.261 | 0.200 |
| (Scale) | 10.709 | 8.533, 13.438 |  |
| **Adequacy score** |  |  |  |
| (Intercept) | 16.864 | 10.581, 23.147 | *<0.001* |
| Deprivation (low; reference: high) | 1.499 | -0.344, 3.341 | 0.111 |
| (Medium; reference: high) | 2.489 | 0.689, 4.289 | *0.007* |
| Waist circumference, cm | 0.083 | 0.025, 0.141 | *0.005* |
| Alcohol consumption (never; reference: regular) | -0.920 | -2.854, 1.014 | 0.351 |
| (Occasional; reference: regular) | 0.022 | -1.626, 1.669 | 0.979 |
| (Scale) | 19.614 | 15.630, 24.615 |  |
| **Moderation score** |  |  |  |
| (Intercept) | 20.251 | 16.143, 24.359 | *<0.001* |
| Sex (male; reference: female) | -1.777 | -3.135, -0.419 | *0.010* |
| BMI, kg/m2 | -0.177 | -0.303, -0.051 | *0.006* |
| Live alone; (reference: with others) | 0.602 | -0.762, 1.966 | 0.387 |
| (Scale) | 15.798 | 12.598, 19.810 |  |
| **Balance score** |  |  |  |
| (Intercept) | 5.391 | 3.779, 7.004 | *<0.001* |
| Supplements (0; reference: 1+) | 0.514 | 0.028, 1.000 | *0.038* |
| BMI, kg/m2 | -0.031 | -0.078, 0.016 | 0.189 |
| Sex (male; reference: female) | 0.401 | -0.087, 0.889 | 0.107 |
| Education level (primary; reference: tertiary) | -0.989 | -2.500, 0.522 | 0.199 |
| (Secondary; reference: tertiary) | -0.097 | -0.584, 0.391 | 0.698 |
| (Scale) | 2.188 | 1.745, 2.744 |  |

Italicized *p*-values are significant at the 0.05 level.

**Table S2.** Multivariate regression against DQI-I score and subcomponents for plausible reporters only.

| **Demographic and health variables** | **B** | **95% Wald CI** | ***p*-value** |
| --- | --- | --- | --- |
| **DQI-I total score** |  |  |  |
| (Intercept) | 59.995 | 51.618, 68.372 | *<0.001* |
| Ethnic group (European; reference: non-European) | 3.034 | 0.016, 6.052 | *0.049* |
| Waist circumference, cm | -.039 | -0.113, 0.035 | 0.299 |
| Live alone; (reference: with others) | 0.807 | -0.936, 2.550 | 0.364 |
| Deprivation (low; reference: high) | 1.443 | -0.695, 3.581 | 0.186 |
| (Medium; reference: high) | 0.893 | -1.330, 3.116 | 0.431 |
| (Scale) | 59.223 | 50.634, 69.267 |  |
| **Variety score** |  |  |  |
| (Intercept) | 13.526 | 12.693, 14.360 | *<0.001* |
| Medications (1; reference: 2+) | 1.191 | -0.024, 2.406 | 0.055 |
| Sex (male; reference: female) | 0.491 | -0.192, 1.173 | 0.159 |
| Deprivation (low; reference: high) | 0.624 | -0.190, 1.437 | 0.133 |
| (Medium; reference: high) | 0.751 | -0.094, 1.596 | 0.082 |
| Alcohol consumption (never; reference: regular) | -0.682 | -1.557, 0.193 | 0.127 |
| (Occasional; reference: regular) | -0.278 | -1.041, 0.486 | 0.476 |
| (Scale) | 8.812 | 7.534, 10.306 |  |
| **Adequacy score** |  |  |  |
| (Intercept) | 21.257 | 16.126, 26.387 | *<0.001* |
| Ethnic group (European; reference: non-European) | 2.088 | 0.724, 3.453 | *0.003* |
| Smoking (non-smoker; reference: smoker) | 4.062 | 0.457, 7.666 | *0.027* |
| Education level (primary; reference: tertiary) | -1.833 | -4.165, 0.499 | 0.123 |
| (Secondary; reference: tertiary) | 0.079 | -0.750, 0.908 | 0.851 |
| NEADL score | 0.161 | -0.026, 0.348 | 0.091 |
| (Scale) | 13.025 | 11.136, 16.234 |  |
| **Moderation score** |  |  |  |
| (Intercept) | 14.275 | 8.80, 19.744 | *<0.001* |
| Live alone; (reference: with others) | 0.927 | 0.031, 1.823 | *0.043* |
| Age, (<80 years; reference: 80+ years) | -0.452 | -1.356, 0.452 | 0.327 |
| MoCA score (not impaired; reference: impaired) | 0.778 | -0.244, 1.799 | 0.136 |
| Waist circumference, cm | -0.048 | -0.084, -0.012 | *0.010* |
| NEADL score | 0.047 | -0.156, 0.250 | 0.647 |
| (Scale) | 14.938 | 12.771, 17.471 |  |
| **Balance score** |  |  |  |
| (Intercept) | 4.652 | 4.259, 5.046 | *<0.001* |
| Alcohol consumption (never; reference: regular) | 0.674 | 0.256, 1.092 | *0.002* |
| (Occasional; reference: regular) | 0.373 | 0.011, 0.734 | *0.043* |
| MoCA score (not impaired; reference: impaired) | -0.590 | -0.966, -0.214 | *0.002* |
| (Scale) | 2.040 | 1.744, 2.386 |  |

Italicized *p*-values are significant at the 0.05 level.

|  |  |  |  |
| --- | --- | --- | --- |
| All participants | | | |
| Variety | Adequacy | Moderation | Balance |

**Figure S2.** CART diagram of factors associated with DQI-I subcomponents in pre-frail older adults

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Plausible reporters only | | | | |
| Total DQI-I | Variety | Adequacy | Moderation | Balance |

**Figure S3.** CART diagram of factors associated with DQI-I and subcomponents in pre-frail older adults for plausible reporter (PR) only.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Low Energy Reporters only | | | | |
| Total DQI-I | Variety | Adequacy | Moderation | Balance |

**Figure S4.** CART diagram of factors associated with DQI-I and subcomponents in pre-frail older adults for LER only.