

P12-005-24 Development of the Ajinomoto Group Nutrient Profiling System for Meals of the Japanese Food Culture

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Objectives: Constructing a reliable nutrient profiling system (NPS) to support various food units (products, cooked dishes, meals) suitable for the local food culture and nutritional issues is important to improve population-based health issues. However, there is no Japanese specific NPS that can evaluate the nutrient content of meals. We aimed to develop a novel NPS to evaluate the nutrient value of a single meal suitable for the Japanese food culture.

Methods: The development of the ANPS-meal considered the eating habits and nutritional issues of the Japanese food culture. The four evaluating elements selected in the NPS were protein and vegetables, which are encouraged, and sodium and saturated fatty acids, which are limited. The scoring algorithm used the sum of the scores of the evaluating elements (maximum of 10 points per serving). The total score was multiplied by 2.5 to convert to the 100-point scale. Content validity was tested in various meal datasets. Meal datasets comprised the regularly consumed meal group; from randomly selected recipes published in a nutritional calculation software (n=1000, Excel Eiyokun ver7, Kenpakusha, Japan), nutritionally balanced meal group; from balanced meal recipes published by healthcare professionals from universities and hospitals (n=310), and eating restaurant meal (n=474) or take out bento box meal group (n=244, Foodbrowser[®], IMD Inc., Japan). To further improve the dataset's accuracy, validity of the meals was judged by a registered dietitian, and the validity of the system was confirmed. Convergent validity using well-validated metric healthy eating index (mHEI) and nutrient rich food index (NRF 9.3) was tested using the same meal datasets.

Results: ANPS-meal scores of various Japanese meals were significantly different (27.5–100 points). The nutritional balanced meal group showed significantly higher ANPS-meal score compared to the eating restaurant meal or take out bento box meal groups (mean score=93.1, 62.7, 67.4 respectively, $p < 0.001$). The Pearson's correlation coefficient between the NRF 9.3 and mHEI and meal based NPS in 2028 dishes were $r=0.36$ and $r=0.54$ ($p < 0.001$), respectively.

Conclusions: ANPS-meal, a newly developed meal-based NPS, can evaluate the nutritional value of a meal in the Japanese food culture.

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P12-006-24 Trust in Nutritional Science is Moderately High but Depends on Political and Religious Beliefs

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Objectives: There is limited peer-reviewed research exploring trust in nutritional science. Given the importance of

trust in health scientists on the amount of attention paid to guidelines and participation in healthy behaviors, it's important to understand how the public trusts our field. We address this gap by studying how trust in nutritional science is moderated by demographics such as political and religious beliefs and by comparing trust in nutritional science to other scientific fields that study our food system.

Methods: We surveyed 400 Americans via an online survey through Prolific. Respondents answered 5-point Likert-items about trust in different fields of sciences (i.e., nutrition, food, agriculture, and environment). Four Likert-items were used to construct a Likert-scale for each field (1 = completely distrust, 5 = completely trust). Besides trust, we also measured potentially moderating sociodemographic factors and beliefs (i.e., politics, religion) that previous research on trust in science have shown to be relevant. Preliminary analysis includes descriptive statistics (means ($\pm$ SD)) and tests of the trust scales' internal consistency (Cronbach's alpha).

Results: Trust in nutritional science (3.83 ($\pm$ 0.86)) was comparable to trust in food (3.85 ($\pm$ 0.84)), agricultural (3.98 ($\pm$ 0.84)), and environmental (4.02 ($\pm$ 0.94)) sciences. However, the most politically liberal and non-religious individuals reported higher levels of trust in all sciences (range from 3.96 ($\pm$ 0.84) to 4.55 ($\pm$ 0.43)) compared to the most politically conservative and highly religious individuals (range from 2.57 ($\pm$ 0.84) to 3.58 ($\pm$ 0.98)). Our scales of trust in science have good internal consistency based on Cronbach's alpha scores which ranged from 0.85 to 0.92.

Conclusions: Trust in the field of nutritional science is moderately high and consistent with other agri-food-related scientific fields. Religious and political beliefs are important predictors of trust, where more politically liberal and non-religious individuals report higher trust in science. This is consistent with trends from studies on trust in science more broadly. Future research should explore differences in trust depending on the practitioner of nutritional science (i.e., scientist, nutritionist, dietitian, etc.).

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P12-007-24 Using Nutrient Profile Models To Demonstrate the Nutrient Quality of Thai Side Dishes and Build Healthy Meals

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Objectives: To demonstrate the overall nutritional quality of common Thai side dishes, what nutrients should be adjusted, and how these dishes complement each other to achieve optimized balanced meals using nutrient profiling.

Methods: Two nutrient profiling systems were developed. The nutrient profile algorithm for 8 Thai side dishes (NP-Dish) was modified from Thailand's healthier choices nutrient scoring algorithm for composite meal categories. Nutrient criteria included 4 desirable nutrients (protein, dietary fiber, calcium, iron) and 4 limiting nutrients (total fat, saturated fat, added sugar, sodium). Side dishes with known recipes were analyzed