

Food Neophobia among Korean Young Adult in their 20s: Focusing on its Association with Fruit and Vegetable Preference, Acceptance and Perceived Intake

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INTRODUCTION

- Nutritional imbalances among young adults in their early 20s are currently being recognized.
- In South Korea, a previous study revealed that the amount of vegetable and fruit intake changed little or decreased especially in early adulthood.
- The Korean Healthy Eating Index for adults has also reported that when taken by age group, those in their 20s had the lowest average scores and that this was attributed to lower intakes of vegetables, fruits, and grains when compared to those of other age groups.
- Food neophobia is indicated as one of the most critical factors affecting reduced preferences for, and lower intakes of fruits and vegetables.

OBJECTIVE

- This study aimed to explore whether food neophobia contributes to preference, acceptance and perceived daily intake of fruits and vegetables among Korean young adults in their 20s.

METHODS

- An on-line survey was conducted from February 18th to 24th, 2020 to Korean young adults (male: 570, female: 707) in their 20s.
- A survey questionnaire was developed to include the food neophobia scale and to assess respondents' preference, acceptance, and perceived daily intake of fruits and vegetables in diversity and amount. Other dietary habits related to taste preferences and perceived healthiness were also measured.
- Respondents were divided into three groups according to food neophobia score distribution (low, middle or high).

- The distributive differences among the three groups were analyzed using a chi-squared test according to respondents' general characteristics (gender, BMI, education level, and income level).
- Significant differences in vegetable and fruit consumption (i.e., preference, acceptance, and perceived daily intake) were measured across the food neophobia groups by using ANOVA.
- All statistical analyses were performed using the SPSS program at the significance level of 0.05.

RESULTS

Table 1. Distribution of level of food neophobia score according to respondents' general characteristics

Classification	Total (n=1,277)	Level of food neophobia score ¹⁾			p ²⁾
		Low (n=434)	Middle (n=759)	High (n=84)	
n (%)					
Gender					
Male	570 (44.6)	186 (42.9)	363 (47.8)	21 (25.0)	0.000
Female	707 (55.4)	248 (57.1)	396 (52.2)	63 (75.0)	
Education					
High school graduation or less	462 (36.2)	143 (32.9)	286 (37.7)	33 (39.3)	
College graduate	694 (54.3)	239 (55.1)	411 (54.2)	44 (52.4)	0.170
Graduate school or more	121 (9.5)	52 (12.0)	62 (8.2)	7 (8.3)	
Household Income (Korean won/month)					
< 1 million	151 (11.8)	55 (12.7)	88 (11.6)	8 (9.5)	
≥ 1 million & < 2.99 million	589 (46.1)	198 (45.6)	346 (45.6)	45 (53.6)	0.095
≥ 3 million & < 4.99 million	286 (22.4)	81 (18.7)	185 (24.4)	20 (23.8)	
≥ 5 million	143 (19.7)	100 (23.0)	140 (18.4)	11 (13.1)	
BMI					
Underweight (<18.5)	114 (8.9)	38 (8.8)	65 (8.6)	11 (13.1)	
Normal weight (≥18.5 & <25)	690 (54.0)	223 (51.4)	418 (55.1)	49 (58.3)	0.247
Overweight or more (≥25)	473 (37.0)	173 (39.9)	276 (36.4)	24 (28.6)	

1) 10 ≤ Low < 23.34, 23.34 ≤ Middle < 36.67, 36.67 ≤ High ≤ 50
2) By χ^2 -test

Table 2. Consumption of vegetable and fruit according to level of food neophobia score among young adults in their 20s

Classification	Total (n=1,277)	Level of food neophobia score ¹⁾			p ²⁾
		Low (n=434)	Middle (n=759)	High (n=84)	
Mean ± SD					
Vegetable consumption¹⁾					
Vegetable preference	3.75 ± 0.683	4.05 ± 0.600 ^a	3.63 ± 0.644 ^b	3.23 ± 0.777 ^c	0.000
Vegetable acceptance	4.18 ± 0.662	4.51 ± 0.492 ^a	4.05 ± 0.658 ^b	3.73 ± 0.766 ^c	0.000
Vegetable intake	2.70 ± 0.922	2.80 ± 1.005 ^a	2.70 ± 0.843 ^b	2.12 ± 0.949 ^b	0.000
Fruit consumption¹⁾					
Fruit preference	4.12 ± 0.651	4.30 ± 0.595 ^a	4.05 ± 0.648 ^b	3.88 ± 0.748 ^c	0.000
Fruit acceptance	4.40 ± 0.645	4.61 ± 0.501 ^a	4.30 ± 0.678 ^b	4.32 ± 0.739 ^b	0.000
Fruit intake	2.64 ± 0.968	2.64 ± 1.026 ^a	2.68 ± 0.922 ^b	2.24 ± 0.977 ^b	0.000

1) 10 ≤ Low < 23.34, 23.34 ≤ Middle < 36.67, 36.67 ≤ High ≤ 50
2) By ANOVA and Duncan multiple test

Table 3. Eating-related habits and health-related belief according to level of food neophobia score among young adults in their 20s

Classification	Total (n=1,277)	Level of food neophobia score ¹⁾			p ²⁾
		Low (n=434)	Middle (n=759)	High (n=84)	
Mean ± SD					
Eating-related Habits					
I like sweet foods	3.54 ± 1.027	3.50 ± 1.082	3.55 ± 0.988	3.73 ± 1.068	0.177
I like salty foods	3.15 ± 0.995	3.06 ± 1.040	3.20 ± 0.939	3.23 ± 1.206	0.041
I like spicy foods	3.07 ± 1.220	3.08 ± 1.301	3.08 ± 1.150	2.90 ± 1.394	0.348
I like fatty foods	3.38 ± 0.920	3.41 ± 0.993	3.36 ± 0.861	3.35 ± 1.035	0.523
Health-related Belief					
I am healthy	3.43 ± 0.861	3.61 ± 0.853 ^a	3.36 ± 0.842 ^b	3.12 ± 0.911 ^c	0.000

1) 10 ≤ Low < 23.34, 23.34 ≤ Middle < 36.67, 36.67 ≤ High ≤ 50
2) By ANOVA and Duncan multiple test

- The results showed that females were more likely to be food neophobic than males.
- Higher level of food neophobia was significantly associated with lower preference, acceptance, and perceived daily intake of fruits and vegetables both in diversity and amount.
- Young adults with higher level of food neophobia were more likely to prefer salty foods, but less likely to perceive themselves to be healthy.

CONCLUSIONS

- The results suggest that food neophobia may negatively influence fruit and vegetable consumption among Korean young adults.

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