

# Comparing Dietary Habits of Koreans in Northern America's West Coast City Areas by Immigration Age\*

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**Abstract :** A convenience samples of Korean-Canadian/American adults who lived in Vancouver, San Jose and Los Angeles areas for over 10 years, were studied in 2000. Total of 130 adults were analyzed by immigration age. The age of immigration age was divided into 3 groups: the young group immigrated at 25 or before, the middle group immigrated at 26 to 40, and the old group immigrated at over 40. Their average length of residence in Canada and the U.S. was a little longer than 20 years. The dietary behavior patterns were similar among 3 groups, except co-eaters and dining-out frequency, and the Korean-Canadians/Americans seemed to be more home-based, family-tightened and traditional patterns than Koreans in Korea. They liked Korean traditional basic dishes, but their children liked a-la-carte ones and immigrants at early 20's showed similar food preferences as young generations. The attitudes of dietary acculturation for themselves and for their children were high. Since immigrating at age 26 to 40 years old rather than 20's or over 40's, showed stronger acculturation attitudes even with no significance and revealed significantly differences in some dietary behaviors and food preferences, it is recommended that immigration age should be considered when planning dietary foodservices at nursing care systems for Korean Canadians/Americans.

**Key Words :** Korean immigrant, immigration age, length of residence, acculturation

## I. Introduction

The relationship between the dietary patterns and other factors such as cultural, and lifestyle factors have been reviewed<sup>1, 2)</sup>. The results indicate that dietary patterns are associated with lifestyle, socioeconomic status and ethnicity<sup>3, 4)</sup>. Smoking and non-exercise among middle-aged British people was related to an unhealthy diet<sup>5)</sup> and that ethnic group membership and residence status were the most important socioeconomic factors

associated with differences in food patterns among older Americans<sup>6)</sup>. It was found that western dietary pattern was positively associated with insulin and leptin concentration whereas prudent dietary patterns was positively associated with plasma folate concentration among American male health professionals<sup>7)</sup>.

Since immigrant populations are growing dramatically in the US, the health status of immigrated ethnic groups is an important health concern<sup>3)</sup>. Studies about the health of minority

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groups in Canada and the U.S. used to focus mainly on African and Hispanic Americans, but changing demographics necessitate the expansion of research studies to include other minorities<sup>8-10</sup>. The number of ethnic Koreans have increased greatly so understanding dietary behaviors and attitudes of the Korean-Canadians and Korean-Americans became interesting.

Since dietary habits typically represent the culture where one lives<sup>6, 8, 10</sup>, immigrants might be able to overcome some conflicts of dietary behaviors and attitudes between two cultures. The family would represent the Korean culture at their first years of immigration, whereas the children get used to the dominant American culture as the years pass. Therefore, dietary habits and attitudes among immigrants would be changed from living longer in Canada and America. Therefore, the acculturation and lifestyles affecting their dietary patterns are important for understanding immigrants themselves as well as for establishing their good dietary habits.

Recently, several studies have focused on dietary changes for Korean ethnic groups. Korean-American adults are reported to prefer traditional Korean food items and tends to decrease with acculturation<sup>11-17</sup>. It was found that a vegetable/fruit dietary pattern was associated with the residency period in the U.S. and education level among women<sup>4</sup>. Also studies were conducted on their food purchasing practices and perception of restaurant patronage<sup>18</sup>, opinions on globalization of Korean foods<sup>19</sup>. Recently, the study on adolescent's dietary intakes was published<sup>20</sup>.

The purposes of this study were to identify

whether different immigration ages and different residency period in Canada and America would show different in the dietary behaviors, food preference and food attitudes of Korean-Canadian/American adults.

## II. Methods

A convenience sample of Korean-Canadian/American adults was recruited from the Korean community such as churches, golf practice fields and other private meetings in Vancouver, San Jose and Los Angeles in 2000. Inclusion criteria for Korean-Canadians/Americans as that the participants had lived in Canada or in the United States for over 10 years. Korean versions of the questionnaires modified from previous works were used. Sixty questionnaire-copies were distributed at each area and collected to eliminate insufficient answers. A total of 130 copies from 3 areas were used for analysis. The participants received a small gift worth less than 3 US dollars after completion of survey.

The contents of the questionnaires covered general characteristics of the subjects including their immigration age, social activities, occupation and education. It also included questions of their dietary behaviors, food preference, food attitudes and social security for mental support. All analyses were performed with SPSS software (version 11.0). ANOVA and p-values were used to compare mean scores and prevalent percentages among the three groups of immigration age at 25 year old and less, over 25 to 40 year old and over 40 year old.

### III. Results and discussion

#### 1. General Features of the Subjects

The general characteristics of the respondents are shown in <Table 1>. A total of 130 Korean-Canadian/American adults participated in the survey: 37 from Vancouver (29%), 45 from San Jose (35%) and 47 from Los Angeles (36%). The subjects included 26 men (21%) and 100 women (79%). The immigration age and present age averaged  $32.2 \pm 12.1$  and  $52.8 \pm 11.5$  years, respectively. Majority of the subjects left Korea in their 20's (45%) and are now in 50's (41%). The average length of residence in Canada and the U.S. was  $20.4 \pm 10.9$  years. Thirty six percent of the subjects had been living there for 11~20 years and 41% 21~30 years.

Their religion meetings were  $1.6 \pm 0.8$  times per week and other regular social meetings were  $1.7 \pm 1.1$  times. The most prevalent meetings were among the Korean society works, church membership and Korea-hometown membership. Their social activities seemed to be very active mostly within Korean circles. They have Korean spouses and one third of them have families living nearby, so most seemed to be in good social support status.

In order to find out whether the dietary behaviors and attitudes could be affected by the younger or older age when they immigrated, the subjects were divided into three groups by immigration age to Canada and America. As shown in <Table 2>, 37 subjects belonged to the age group of 25 years old or less (young group), 60 subjects to the group of 26~40 years old (middle group) and 30 subjects to

<Table 1> General Features of the Subjects

Variable	Frequency (Valid %)
<Area>	
Vancouver	37 (29)
San Jose	45 (35)
Los Angeles	47 (36)
<Gender>	
Male	26 (21)
Female	100 (79)
<Age When Leaving Korea> (years)	
20 and less	$32.2 \pm 12.1^{1)}$ 19 (15)
21~30	57 (45)
31~40	21 (16)
41~50	18 (14)
51~60	6 ( 5)
61 and more	6 ( 5)
<Present Age> (years)	
21~30	$52.8 \pm 11.5$ 2 ( 1)
31~40	11 ( 9)
41~50	50 (41)
51~60	33 (27)
61 and more	27 (22)
<Length of residence> (years)	
10 and less	$20.4 \pm 10.9$ 15 (12)
11~20	43 (36)
21~30	50 (41)
31 and more	13 (11)
<Religious Meeting> (/week)	
None	$1.6 \pm 0.8$ 4 ( 3)
Once a week	62 (49)
2 times a week	36 (29)
3 times a week	15 (12)
4 times and more	9 ( 7)
<Other Regular Meeting> (/week)	
None	$1.7 \pm 1.1$ 20 (18)
Once a week	34 (30)
2 times a week	21 (19)
3-4 times a week	22 (20)
5 times and more	15 (13)

&lt;Table 1&gt; Continue

Variable	Frequency (Valid %)
Korean Society	34 (29)
Church membership	22 (19)
Hometown membership	13 (11)
School alumni	9 ( 8)
Others (job, neighbor, sports)	15 (13)
<Nationality of Spouse>	
Korea	123 (96)
Foreign countries	2 ( 2)
No spouse	2 ( 2)
<Near-by Living Parent>	
Yes	39 (31)
No	86 (69)

N=130, but changed depending on the answers.

<sup>1)</sup> Mean  $\pm$  SD

the group of over 40 years old (old group). Their present age increased significantly along with increased immigration age. However, the residency period decreased significantly along with increased immigration age.

Their occupations varied among 3 groups; more professional and sales occupations among the young and middle groups but more of labor works in the old group. Their education level also differed such that the young group showed the highest education level and the old group the lowest. Increased numbers of the old group had more children lived at apartments.

And 42% of the subjects exercised 1-2 times per week, 32% 3 times or more and 27% seldom. Their recognized health status was as good, average (45%) and their recognized nutritional status was 48%, 47% and 6%, respectively. A smaller number recognized their health status and nutritional status as good in the old group than in

other groups of Korean-Canadian/American adults.

## 2. Dietary Behaviors

The dietary behaviors of the respondents are shown in <Table 3>. Daily meal frequencies were three times for almost half of the subjects and twice for one third. In regard to skipping meals, most of the respondents did not eat breakfast. Co-eaters at mealtimes were significantly different among 3 groups; half of the young group ate with their family members but half of the old group ate with spouses. However, we could assume most respondents ate meals together with families since the grown-up children left their parent's homes for private livings in Western countries. This desirable behavior has recently decreased in Korea. And as the majority mothers were preparing foods (92%) and went grocery shopping once a week (60%). Almost all bought Korean foods at Korean markets.

The eating-out behaviors were shown in <Table 4>. Over 60% of the respondents dined out once a month or less, which is very much different from families in Korea. Eating-out frequencies were significantly different among 3 groups; the young group dined out more often than the old group. When eating-out, they mostly enjoyed Korean dishes (64%). If they could not choose what they wanted to eat, the reasons were 'not good for health' in the young group and 'not preferred by all families commonly' in the old group. It implies that the young group would pursue things based on scientific facts when selecting menu but the old group would focus on family member's minds. Although the dietary behavior patterns were

&lt;Table 2&gt; Characteristics by Immigration Age

Variable	Age of immigration (years)				Sig.
	≤25(n=37)	25<, ≤40(n=60)	40<(n=30)	Total(n=127)	
Present age	47.4 ± 11.9 <sup>4)</sup>	50.7 ± 6.3	63.6 ± 12.1	52.8 ± 11.5	0.000
Residency Period	27.1 ± 12.4	20.0 ± 6.3	13.4 ± 11.0	20.5 ± 10.7	0.000
<Occupation>					
Professionals <sup>1)</sup> , clerk works	12 (41)	21 (39)	2 ( 9)	35 (33)	0.001
Sales, service works <sup>2)</sup>	7 (26)	17 (31)	5 (22)	29 (27)	
Labor works <sup>3)</sup>	2 ( 6)	5 ( 9)	9 (38)	16 (15)	
Housekeeping	7 (24)	9 (17)	2 ( 9)	18 (17)	
Others	1 ( 3)	2 ( 4)	5 (22)	8 ( 8)	
<Occupation of Spouse>					
Professionals, clerk works	11 (46)	22 (47)	2 (13)	35 (41)	ns
Sales, service works	4 (17)	15 (32)	4 (25)	23 (27)	
Labor works	4 (17)	3 ( 6)	7 (43)	14 (16)	
Housekeeping	2 ( 8)	3 ( 6)	1 ( 6)	6 ( 7)	
Others	3 (12)	4 ( 9)	2 (13)	8 ( 9)	
<Education Graduation>					
Middle school and less	1 ( 3)	1 ( 2)	7 (27)	9 ( 8)	0.000
High school	2 ( 6)	10 (17)	7 (27)	19 (16)	
College	27 (77)	38 (66)	11 (42)	76 (64)	
Graduate school	5 (14)	9 (15)	1 ( 4)	15 (12)	
<Number of Children>	2.4 ± 1.0 <sup>4)</sup>	2.1 ± 0.5	3.0 ± 1.3	2.4 ± 1.0	0.000
1	4 (11)	6 (10)	-	10 ( 8)	0.024
2	21 (57)	41 (70)	13 (43)	75 (60)	
3	7 (19)	12 (20)	9 (30)	28 (22)	
4 and more	5 (13)	-	8 (27)	13 (10)	
<Dwelling Unit>					
House	27 (73)	48 (81)	13 (57)	91 (73)	0.012
Condominium, Townhouse	8 (22)	7 (12)	3 (11)	18 (15)	
Apartment	2 ( 5)	4 ( 7)	8 (29)	14 (11)	
Others	-	-	1 ( 3)	1 ( 1)	
<Frequency of Exercise>					
Once a month and less	9 (24)	16 (28)	8 (28)	33 (27)	ns
1-2 times a week	16 (43)	23 (40)	12 (41)	51 (41)	
3 times a week and more	12 (33)	18 (32)	9 (31)	39 (32)	
<Self-Recognized Health Status>					
Bad	2 ( 5)	6 (10)	6 (21)	14 (11)	0.070
Average	18 (49)	22 (37)	16 (55)	56 (45)	
Good	17 (46)	31 (53)	7 (24)	55 (44)	
<Self-Recognized Nutrition Status>					
Bad	1 ( 3)	5 ( 8)	1 ( 4)	7 ( 6)	0.029
Average	18 (50)	20 (34)	19 (70)	57 (47)	
Good	17 (47)	34 (58)	7 (26)	58 (48)	

Frequency (Valid %), 4) Mean ± SD, 1) Including accountant, lawyer, teacher, doctor, nurse and office works, 2) Including guard, cleaner, laundry/ beauty/ foods/ lodge shop worker, 3) Including factory worker, driver, sewing worker, etc.

&lt;Table 3&gt; Dietary Behaviors by Immigration Age

N(%)

Variable	Age of immigration (years)				Sig.
	≤25	25<, ≤40	40<	Total	
<Meal Frequency>					
Once(/day)	8 (22)	11 (18)	4 (14)	23 (18)	ns
Twice	13 (36)	24 (40)	5 (18)	42 (34)	
3 times	15 (42)	25 (42)	19 (68)	59 (48)	
<Skipping Meals>					
Breakfast	26 (86)	42 (80)	14 (67)	82 (79)	ns
Lunch	2 ( 7)	5 (10)	3 (14)	10 (10)	
Dinner	2 ( 7)	5 (10)	4 (19)	11 (11)	
<Eating Accompany>					
Alone	3 ( 8)	6 (10)	8 (29)	17 (14)	0.038
Spouse	11 (31)	25 (42)	14 (50)	50 (40)	
Spouse & Children	20 (55)	25 (42)	5 (18)	50 (40)	
Others	2 ( 6)	4 ( 6)	1 ( 3)	7 ( 6)	
<Meal Preparation>					
Mother	33 (89)	58 (97)	26 (87)	117(92)	ns
Others	4 (11)	2 ( 3)	4 (13)	10( 8)	
<Food Purchase Frequency>					
2-3 times(/week)	8 (22)	13 (22)	5 (19)	26 (21)	ns
Once	19 (53)	36 (61)	17 (62)	72 (59)	
Biweekly and less	9 (25)	10 (17)	5 (19)	24 (20)	
<Korean Food Purchase Place>					
Korean market	37 (100)	54 (93)	28 (97)	119(96)	ns
Japanese, chinese market	-	1 ( 2)	-	1 ( 1)	
Western market, from Korea	-	3 ( 5)	1 ( 3)	4 ( 3)	

similar among 3 groups, the Korean-Canadians/Americans seemed to be more home-based, family-tightened and traditional patterns than Koreans in Korea.

### 3. Food Preference

In relation to food preparation, most favorite Korean foods of Korean- Canadian/Americans were shown in <Table 5>.

Adults liked jigae (stew, 23%) followed by kuk (soup, 14%), namul (vegetable, 11%), fish-kui (10%) and galbi (meat, 10%). In contrast, their children liked galbi (24%), jigae (18%), japchae (vegetable, 7%), kuk (6%) and mandu (pasta, 5%). Between parents and their children, the food preferences differed; parents liked kuk, namul and fish-kui, which were the basic foods in Korean traditional meals but children liked galbi and japchae, which were a-la-carte dishes.

&lt;Table 4&gt; Eating-Out Behaviors by Immigration Age

N(%)

Variable	Age of immigration (years)				Sig.
	≤25	25<, ≤40	40<	Total	
<Eating-Out Frequency>					
Once a month and less	16 (45)	37 (62)	22 (81)	75 (61)	0.015
1-2 times a week	13 (36)	19 (32)	5 (19)	37 (30)	
3 times a week and more	7 (19)	4 ( 6)	-	11 ( 9)	
<Eating-Out Reason>					
Special Occasion	6 (14)	17 (28)	8 (36)	31 (27)	ns
Family Fun	9 (21)	14 (24)	6 (27)	29 (24)	
Meeting Friends	4 ( 9)	12 (20)	5 (23)	21 (18)	
Others	24 (56)	17 (28)	3 (14)	36 (31)	
<Favorite Food Style>					
Korean	19 (59)	37 (63)	19 (73)	75 (64)	ns
Japanese	7 (22)	11 (19)	5 (19)	23 (20)	
Western	4 (13)	5 ( 9)	1 ( 4)	10 ( 9)	
Chinese	2 ( 6)	5 ( 9)	1 ( 4)	8 ( 7)	
<Actual Dining Food>					
Korean	18 (56)	31 (61)	20 (80)	69 (64)	ns
Chinese	6 (19)	10 (20)	2 ( 8)	18 (17)	
Japanese	4 (13)	5 (10)	1 ( 4)	10 ( 9)	
Western	2 ( 6)	4 ( 8)	2 ( 8)	8 ( 7)	
Others(Mexican, etc)	2 ( 6)	1 ( 0)	-	3 ( 3)	
<Reason of Difference>					
Common Family Preference	4 (16)	12 (27)	7 (32)	23 (25)	ns
High Expense	5 (19)	12 (27)	3 (14)	20 (22)	
Healthy Food	6 (23)	11 (25)	2 ( 9)	19 (21)	
Others	11 (42)	9 (21)	10 (45)	30 (32)	

When comparing favorite foods among 3 groups, significant differences were observed; the young group liked less of kuk and more of galbi than the other groups. Their food preferences were similar to the children, so we learned that immigration at early 20's showed same food preferences like young generations.

#### 4. Food & Social Attitudes

Dietary attitudes including thoughts and values

toward Korean foods of the Korean-Canadian/American adults are shown in <Table 6>. The respondents mostly gave high values to their dietary acculturation and to educating their children about eating. Their attitudes for acculturation of children were not strong as much as toward themselves. Among six questions, highly scored ones were "It is good to discard Korean food habits" and "I try to change Korean food habits". They firmly believed in on stamina foods.

<Table 5> Food Preference by Immigration Age

N(%)

Favorite Food	Immigration Age (years)			
	≤25	25<, ≤40	40<	Total
<Subject's Choice>				
Jigae (Korean stew)	15 (22)	28 (25)	11 (22)	54 (23)
Kuk (Korean soup)*	4 ( 6)	17 (15)	11 (22)	32 (14)
Namul (boiled vegetable)	8 (11)	12 (11)	5 ( 9)	25 (11)
Fish kui (broiled/ grilled)	9 (13)	15 (13)	4 ( 7)	24 (10)
Galbi (broiled beef rib)*	11 (16)	8 ( 7)	4 ( 7)	23 (10)
Others	23 (32)	33 (29)	18 (33)	78 (32)
<Children's Choice>				
Galbi (broiled beef rib)	16 (25)	26 (26)	8 (20)	50 (24)
Jigae (Korean stew)	8 (12)	21 (21)	8 (20)	37 (18)
Japchae (noodle and vegetable mixed)	3 ( 5)	8 ( 8)	3 ( 7)	14 ( 7)
Kuk (Korean soup)	5 ( 8)	5 ( 5)	2 ( 5)	12 ( 6)
Mandu, sujaebi (Korean pasta)	2 ( 3)	2 ( 2)	1 ( 2)	10 ( 5)
Others	31 (47)	40 (38)	19 (46)	85 (40)

Significant difference at p<0.05 among 3 groups

<Table 6> Food Attitudes by Immigration Age

N(%)

Question	Immigration Age (years)			
	≤25	25<, ≤40	40<	Total
I agree that it is good to discard Korean food habits.	4.12 ± 1.36	4.48 ± 0.83	4.20 ± 1.27	4.30 ± 1.13
I try to change Korean food habits.	3.80 ± 1.35	4.33 ± 0.96	3.80 ± 1.47	4.04 ± 1.23
I disagree that my children have Korean food habits.	3.36 ± 1.25	3.59 ± 1.07	3.00 ± 1.31	3.38 ± 1.19
I don't teach my children to have Korean food habits.	3.21 ± 1.41	3.25 ± 1.51	2.87 ± 1.51	3.15 ± 1.35
I agree that it is good to eat stamina foods.	3.68 ± 1.28	3.70 ± 1.16	3.57 ± 1.34	3.67 ± 1.22
I will eat stamina foods if available.	3.24 ± 1.45	3.24 ± 1.28	3.64 ± 1.21	3.32 ± 1.32
Total	4.03 ± 0.65	4.24 ± 0.52	4.10 ± 0.80	4.14 ± 0.62

Mean ± SD, Scored 5 points from 'not at all'=1, 'disagree'=2, 'average'=3, 'agree'=4 and 'agree much'=5.

No significant difference observed for each question and total score among 3 groups

Among the three groups, the middle group showed stronger attitudes of acculturation for themselves and for their children than the other groups. This explained that the middle group, immigrated in their late 20's to 40s' (now in 50's) resided for about 20 years in Canada and America,

might be accustomed to new environments with great efforts so they give high values to changes. The old groups, immigrated at over 40 years of age and now in their 60's lived there for about 13 years in average, still represented more Korean cultural attitudes for their children's acculturation than the



other groups. And the young group, immigrated when they were in their early 20's and now in late 40's lived there for about 27 years, might have less difficulties for adapting new cultures.

<Table 7> explains the social security attitudes of the Korean-Canadian/American adults. All of the respondents showed highly positive social attitudes. Among the six questions, most highly scored answers were 'keeping friends, family and social-surroundings', 'values of human relations' and 'participating in helping others' whereas the lowest was 'caring for the community and environment where I belong'.

Among the three groups, strong positive attitudes were observed in the young group, the middle group and the old group by order. The young group agreed more with the questions of 'willing to participate in helping others' and 'caring the community and environment'. This indicates that they were harmonized with new environments more than the other groups, since they immigrated at younger ages and resided for longer periods.

This pattern of their social attitudes is not same as

the pattern of their food attitudes. It seemed that the young group immigrated in their early 20's, were easily immersed in Canadian/American cultures relatively so they did not need strongly for dietary changes. It seemed that the middle group immigrated around 30 years old, were a transition pattern between the Korean and Canadian/ American cultures relatively, so they might gave stronger values for dietary acculturation to overcome difficulties. It seemed that the old group immigrated when they were over 40 years old, have somewhat stepped aside from struggles in new environments relatively, so they also became less eagerous of their dietary acculturation than the middle group.

#### IV. Conclusion

In 2000, a convenience sample of Korean-Canadian/American adults who lived in Vancouver, San Hose and Los Angeles for over 10 years were studied by immigration age. Among the total of 130 adults, 37 are from Vancouver (29%), 45 from San Jose (35%) and 47 from Los Angeles

<Table 7> Social Attitudes by Immigration Age

N(%)

Question	Immigration Age (years)			
	≤25	25<, ≤40	40<	Total
I try to keep my friends, family and social-surroundings.	97.2	96.6	97.2	97.2
I know how valuable my human relations are.	94.4	98.3	94.4	94.4
I am willing to participate in helping others	97.2	87.0	87.5	90.4
I agree to the diversity of others.	88.9	85.7	88.9	88.9
I do well at finance and house management.	86.1	90.7	88.0	88.7
I care the community and environment where I belong.	91.4	78.8	72.7	81.7
Total	92.4 ± 11.7 <sup>1)</sup>	89.1 ± 13.8	87.1 ± 18.5	89.8 ± 14.3

Valid % of agreement, No significant difference observed for each question and total score among 3 groups

<sup>1)</sup> Mean ± SD

(36%). The age of immigration was divided into 3 groups such as the young group immigrated at 25 or before, the middle group immigrated at 26 to 40, and the old group immigrated at over 40.

1. Their average immigration age was  $32.2 \pm 12.1$  and their present age was  $52.8 \pm 11.5$ . Majority of the subjects left Korea in their 20's (45%) and are now in 50's (41%). The average length of residence in Canada and the U.S. was a little over 20 years.

2. Religious meetings were held  $1.6 \pm 0.8$  times per week and other regular social meetings were  $1.7 \pm 1.1$  times. Their social activities seemed to be very active mostly within Korean circles and to be in good social support status.

3. Their occupations and education level were significantly different among the three groups; more professional and sales jobs among the young and middle groups and the young group showed the highest education level.

4. Although the dietary behavior patterns were similar among the three groups, except co-eaters and dining-out frequency, the Korean-Canadians/Americans seemed to be more home-based, family-tightened and traditional than Koreans.

5. Between parents and their children, the food preferences differed; parents liked the basic foods in Korean traditional meals, but children liked sorts of a-la-carte dishes. However, the young group of parents showed similar pattern of favorite foods to their children, so immigrating in their early 20's led to having the same food preferences as young generations.

6. The attitudes of dietary acculturation for themselves and for their children were high,

especially in the middle group than in the other groups. The social attitudes were higher in the young group than the other groups. The pattern of dietary acculturation was not the same as that of social attitude.

7. Our findings suggest that the age of immigration shows some significant differences in general characteristics of dietary behaviors and food preferences. The immigration age, around 30 have strong acculturation attitudes than early 20's or over 40, even though there were no significance, and the mean length of residence for 20 years have strong acculturation attitudes than near 30 years or over 10 years.

The results of this study have limited generalizability because of the number of subjects and convenience samples. However, this study is one of a few reports done with Korean immigrants, who resided over two decades mostly. Identifying the different acculturation of dietary behaviors and food preference by age of immigration and reflecting their characteristic aspects by age of immigration, could understand their dietary practices of Korean immigrants and could plan food services in nursing care systems. When working for Korean-Canadian/American adults or seniors, they must consider the following: immigration age, residency period, dietary behaviors, food preferences, beliefs, strongness or weakness of dietary traditions, and how to blend two cultures.

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