

## Food Habits of Korean Immigrants Living at Pacific Coast Areas by Length of Residence

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### ABSTRACT

A convenience samples of Korean-Canadian/American adults who lived in Pacific coast areas, were studied in 2000. Total of 130 adults of 37 (29%) from Vancouver, 45 (35%) from San Jose and 47 (36%) from Los Angeles were analyzed by length of residence, as the shorter residence group resided for less than 20 years and the longer residence group resided for 20 years or more. It was observed that the Korean-Canadians/Americans, who resided there for almost two decades, still kept Korean foods and food-patterns very strongly, even though parents' generation showed less acculturated food patterns than children's generation. In spite of those practices, they gave high values mostly on their dietary acculturation and on educating their children about diets. However the longer residence group showed slightly less positive acculturation attitudes than the shorter one. Therefore the longer abroad seemed to make immigrants more for their children to keep dietary traditions. It is recommended that length of residence should be considered when planning dietary foodservices at nursing care systems for Korean Canadians/Americans. (*J Community Nutrition* 7(1) : 36~41, 2005)

**KEY WORDS :** Korean immigrant · length of residence · acculturation · tradition.

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### Introduction

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The relationships between the dietary patterns and other factors such as culture, and lifestyle factors have been reviewed (Hertzler, Owen 1976, 1984) and were reported that dietary patterns are associated with lifestyle, socioeconomic status and ethnicity (Santia-Abouta et al. 2002 ; Yang et al. 2003). Ethnic group membership and residence status were the most important socioeconomic factors associated with differences in food patterns among older Americans (Akin et al. 1986). It was found that western dietary pattern was positively associated with insulin and leptin concentration with prudent dietary patterns was positively associated with plasma folate concentration among US male health professionals (Fung et al. 2001).

Since immigrant populations are growing dramatically in the US, the health status of immigrated ethnic groups is an important health concern. Changing demographics necessitate

the expansion of research studies to include minorities other than African and Hispanic Americans (Yoon, Chien 1996 ; Bermudez et al. 2000 ; Satia et al. 2000). The number of ethnic Koreans have increased greatly, so understanding food habits of the Korean-Canadians/Americans became interesting

Since food habits typically represent the culture where one lives, immigrants could have to overcome some conflicts 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 with years. Therefore food habits of immigrants would be changed with years of residence in Canada/the US, so their acculturation of their food habits are important for their wellness.

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 (Ludman et al. 1992 ; Lee et al. 1999 ; Gordon et al. 2000 ; Cross et al. 2002 ; Park et al. 2003 ; Song et al. 2004). It was found that a vegetable/fruit dietary pattern was associated with length of residence in the US and education level among women (Martikainen et al. 2003). Also studies have been done about their food purchasing practices and perception of restaurant patronage (Joo, Kennon 2002), about opinions for globalization of Korean

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foods (Sim et al. 2000) and about acculturation attitudes by immigration age (Park 2004).

The purposes of this study were to identify whether different length of residence around two decades in Canada/the US would show differences in the food habits of Korean-Canadian/American adults.

### Methods

A convenience sample of Korean-Canadian/American adults was recruited from Korean community including churches, golf-clubs and other private meetings in Vancouver, San

Jose and Los Angeles areas in 2000. Inclusion criteria for Korean-Canadians/Americans were that the participants had lived with family in Canada or in the US. One hundred thirty adults participated in the survey : 37 persons (29%) from Vancouver, 45 persons (35%) from San Jose and 47 persons (36%) from Los Angeles. The subjects included 26 men (21%) and 100 women (79%) and their length of residence in Canada and the US ranged mostly 10 to 30 years as shown in Table 1

Korean versions of the questionnaires modified from previous works were used. Sixty questionnaire-copies were distributed at each area and collected to eliminate some with insufficient answers. Total of 130 copies from 3 areas were used for analysis. The content of the questionnaires covered general characteristics of the subjects including their ages when immigrated and at present, social activities and education levels as well as health and nutritional status and questions of their food habits and food attitudes were included. All analyses were performed with SPSS software (version 11.0). Frequency and ANOVA were used to compare preva-

**Table 1.** Length of residence of Korean immigrant subjects

Length of residence	Subject number (%)
10 years and less	15( 12)
11 – 20 years	43( 36)
21 – 30 years	50( 41)
31 years and more	13( 11)
Total	129(100)

**Table 2.** Some general characteristics of the subjects by length of residence

Item	Length of residence		Total (N = 124)	Sig.
	20 years > (N = 51)	20 years ≤ (N = 73)		
Length of residence (yr) <sup>1)</sup>	11.5 ± 7.4	26.6 ± 8.1	20.4 ± 10.8	***
Present age (yr) <sup>1)</sup>	48.5 ± 14.6	55.1 ± 9.7	52.4 ± 12.4	**
Age when immigrating (yr) <sup>1)</sup>	37.0 ± 14.7	28.5 ± 9.3	32.0 ± 12.5	***
Number of children <sup>1)</sup>	2.3 ± 1.1	2.5 ± 1.0	2.4 ± 1.0	–
Dwelling unit <sup>2)</sup>				
House	31 (63.3)	57 (79.2)	88 ( 72.7)	
Condominium, townhouse	6 (12.2)	7 ( 9.7)	13 ( 10.7)	–
Apartment	10 (20.4)	8 (11.1)	18 ( 14.9)	
Others	2 ( 4.0)	–	2 ( 1.6)	
Education (graduation) <sup>2)</sup>				
Middle school and less	5 (10.4)	5 ( 7.4)	10 ( 8.7)	
High school	10 (20.8)	9 (13.2)	19 ( 16.4)	–
College	31 (64.6)	45 (66.2)	76 ( 65.5)	
Graduate school	2 ( 4.2)	9 (13.2)	11 ( 9.5)	
Religion meeting (/week)				
None	1 ( 2.0)	3 ( 4.2)	4 (3.035 )	
Once	31 (62.0)	30 (42.3)	61 ( 50.4)	–
Twice	10 (20.0)	26 (36.6)	36 ( 29.8)	
3 times and more	8 (16.0)	12 (16.9)	20 ( 16.5)	
Regular meeting (/week) <sup>3)</sup>				
None	8 (18.0)	11 (16.9)	19 ( 17.4)	
Once	16 (36.4)	18 (27.7)	34 ( 31.2)	–
Twice	10 (22.7)	10 (15.4)	20 ( 18.3)	
3 times and more	10 (22.7)	26 (40.0)	36 ( 33.0)	

1) Mean ± SD, 2) N(%), 3) Except religion meetings  
Significant difference observed at p < 0.01 (\*\*) and p < 0.001 (\*\*\*)

**Table 3.** Self-recognized health status and nutritional status N(%)

Self-recognition	Length of residence		Total	Sig.
	20 yrs >	20 yrs ≤		
<b>Health status</b>				
Bad	4( 8.0)	11(15.3)	15(12.3)	*
Average	29(58.0)	26(36.1)	55(45.1)	
Good	17(34.0)	35(48.6)	52(42.6)	
<b>Nutritional status</b>				
Bad	4( 8.2)	4( 5.7)	8( 6.7)	-
Average	25(51.0)	31(44.3)	56(47.1)	
Good	20(40.8)	35(50.0)	55(46.1)	

Significant difference observed at  $p < 0.05$  (\*)

Different totals observed because of different answered numbers

lent percentages, mean scores, chi-squares and p-values between two groups of length of residence as 'less than 20 years' (shorter) and '20 years or more' (longer).

## Results and Discussion

### 1. Some backgrounds of the subjects

The general characteristics of the subjects are shown in Table 2. The subjects were divided into the two groups to find that the food behaviors and attitudes be affected by the length of residence, so that the shorter residence group was consisted of 51 persons and the longer residence group was consisted of 73 persons.

The ages when immigrated and at present averaged  $32.0 \pm 12.5$  years and  $52.4 \pm 12.4$  years, respectively. Most of the subjects were dwelling in houses and graduated colleges. They participated in religious meetings (50.4% of once/week and 29.8% of twice/week) and had positive relationships with other Koreans (33.0% of 3 times and more and 31.2% of once weekly) for/with the Korean society works, church members and Korea-hometown persons. Almost all subjects have a Korean spouse and one third of them have close-families living nearby, so they seemed to have strong networks of Korean communities.

The subjects recognized their health and nutritional status mostly more than average. It was interesting that they recognized nutritional status good more than health status (46.1% vs. 42.6% of good, respectively) and the longer residents thought their health status good significantly more than the other shorter residents (Table 3).

### 2. Korean food habits

Food patterns of daily meals of the subjects and their chil-

**Table 4.** Food style of daily meals of the subjects and their children N(%)

Meal-time	Food style	Subjects		Children	
		20 yrs >	20 yrs ≤	20 yrs >	20 yrs ≤
Breakfast	Bread	24(49.0)	32(49.2)	29(64.4)	40(60.6)
	Rice	13(26.5)	16(24.6)	7( 5.6)	6( 9.1)
	Cereal	8(16.3)	10(15.4)	9(20.0)	20(30.3)
	Porridge	4( 8.2)	7(10.8)	-	-
Lunch	Korean	29(58.0)	42(61.8)	-	-
	Western	-	-	37(78.7)	58(84.1)
	Others	21(42.0)	26(38.2)	10(21.3)	11(15.9)
Dinner	Korean	44(91.7)	67(97.1)	37(78.7)	45(65.2)
	Western	-	-	8(17.0)	23(33.3)
	Others	4( 8.3)	2( 2.9)	2( 4.3)	1( 1.4)

No significant difference observed between two length of residence in subjects or children

**Table 5.** Food frequency of kimchi and Korean soups of the subjects N(%)

Frequency	Length of residence		Total
	20 years >	20 years ≤	
<b>Kimchi</b>			
Every meal	25(49.0)	26(36.1)	51(41.5)
Everyday	17(33.3)	39(54.2)	56(45.5)
Once/week and less	9(17.6)	7( 9.7)	16(13.0)
<b>Korean soup</b>			
Everyday	17(34.7)	29(41.4)	46(38.7)
3 - 4 times/week	24(49.0)	24(34.3)	48(40.3)
1 - 2 times/week	6(12.2)	10(14.3)	16(13.4)
Seldom	2( 4.1)	7(10.0)	9(15.1)

No significant difference observed between two length of residence in Kimchi or Korean soup

dren were shown in Table 4. For breakfast the parents had bread or rice among grain foods as many as half and one forth, respectively, but their children ate bread or cereals as many as over 60% and one forth, respectively. For lunch the parent had Korean foods, but their children ate Western foods. However for dinner both of them enjoyed Korean foods mostly. Therefore it was assumed that the parents kept eating more Korean foods, but their children were more acculturated to Western style especially at work places. Eighty seven percent of the subjects enjoyed kimchi (a sort of Korean pickle) every meals or at least everyday and 79% of them Korean soups (kuk and jigae) everyday or at least 3 - 4 times per week (Table 5). Since the basic Korean meal pattern is a set of cooked rice, Korean soup, a protein food dish and 2 - 3 vegetable dishes, our results suggested that the Korean-Canadians/Americans, who resided there for almost two decades, ate Korean foods and food-patterns very strongly.

Three favorite Korean dishes except cooked rice and kimchi are shown in Table 6. Both of the subjects and their children liked jigae (2/3 of solid foods, less water) and the subjects

liked kuk (1/3 of solid foods, more water) next, but their children didn't. Children's generation liked galbi (barbecued beef ribs) more than their parents, who liked namul (blanched and

seasoned vegetables) and fish-kui (grilled whole fish) more. Also there were differences of higher preferences of Korean foods in longer residence group than the shorter one.

**Table 6.** Food preference of Korean foods of the subjects and their children Unit : %

Foods	Subjects		Children	
	20 yrs >	20 yrs ≤	20 yrs >	20 yrs ≤
Korean soups				
<i>Jigae</i>	19.8	25.9	21.0	27.7
<i>Kuk</i>	18.7	25.2	-	-
Side-dishes				
<i>Galbi</i> (barbecued meats)	9.9	9.4	17.3	20.2
<i>Namul</i> (blanched vegetables)	5.5	20.9	-	-
<i>Fish-kui</i> (grilled whole fish)	6.6	19.8	-	-

Selected 2 favorite Korean dishes except cooked rice and kimchi and shown only % > 5

**Table 7.** Foods prepared on New Year day and Thanksgiving day of the subjects Unit : %

Foods	New Year day		Thanksgiving day	
	20 yrs >	20 yrs ≤	20 yrs >	20 yrs ≤
	Korean soups			
Kuks(except seaweed soup)	-	-	-	5.6
Toran(potato) kuk	-	-	7.1	-
Rice-cakes				
Mandu(spring roll) and sliced rice	36.8	46.6	-	5.6
Halfmoon rice	-	-	14.1	16.8
Side-dishes				
Galbi	11.5	12.8	10.6	13.6
Namul	6.9	9.0	15.3	16.8
Pan-fried foods (fish, veg.)	13.8	16.5	15.3	9.6
Jabchae (seasoned rice-noodle)	-	-	5.9	8.0

Selected 3 favorite Korean dishes except cooked rice and kimchi and shown only % > 5

There were traditions of special foods on special days among Korean-Canadians/Americans as shown in Table 7. They enjoyed mandu (sort of spring rolls) with rice cake soup on new year day or halfmoon rice-cake on thanks giving day, which were same in Korea. Along with those they also served other traditional side dishes like pan-fried dishes, galbi, namul and seasoned rice-noodle and etc., which were same in Korea too.

### 3. Attitudes toward acculturation

Dietary acculturation of the Korean-Canadian/American adults are shown in Table 8. They gave high values on their dietary acculturation (3.7 points) and on educating their children about diets (2.7 points) even though they kept Korean foods and food-patterns very strongly and their food attitudes toward children were lower than ones toward themselves (2.9 vs. 3.6 points). Among six questions, the highest score was observed at "It is good to discard Korean food habits", followed by "I try to change Korean food habits.". They kept strong beliefs on stamina foods.

On the other hand, the longer residence group showed slightly higher scores on questions 2 and 4 about acculturation than the shorter residence group even with no significant difference. It was possibly assumed that the longer immigrants resided abroad and the more they got aged, the more they were afraid of their offsprings' losing Korean traditions or identities. In previous work (Park 2004) on three groups of immigration ages, the middle group who immigrated at late 20's to 40's and experienced difficulties probably for adaptation to the new country, showed stronger acculturation attitudes than the other groups, the young group who immigrated

**Table 8.** Food attitudes of the subjects

Question	Length of residence		Total
	20 years >	20 years ≤	
1) I agree it is good to discard Korean food habits.	3.7 ± 0.6	3.7 ± 0.7	3.7 ± 0.6
2) I try to change Korean food habits.	3.4 ± 0.8	3.7 ± 0.7	3.6 ± 0.8
3) I disagree my children keep Korean food habits.	2.7 ± 0.7	2.7 ± 0.8	2.7 ± 0.8
4) I don't teach my children to have Korean food habits.	2.8 ± 0.8	3.0 ± 0.8	2.9 ± 0.8
5) I agree it is good to eat stamina foods.	3.3 ± 0.7	3.5 ± 0.8	3.4 ± 0.7
6) I will eat stamina foods if available.	3.1 ± 0.8	3.2 ± 0.8	3.2 ± 0.8
Total	3.2 ± 0.3	3.3 ± 0.4	3.2 ± 0.4

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 between two length of residence

at early 20's and immersed easily into Canadian/American cultures, and the old group who immigrated over 40 and stepped aside possibly from vigorous struggles. No matter when they had left Korea, being longer abroad seemed to make immigrants more for their children to keep dietary traditions even though those were changed more by themselves.

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## Conclusions

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A convenience sample of Korean-Canadian/American adults who lived at Pacific coast areas were studied in 2000. Total of 130 adults from Vancouver (37, 29%), from San Jose (45, 35%) and from Los Angeles (47, 36%) were analyzed by length of residence. The shorter residence group, resided less than 20 years, was consisted of 51 persons and the longer residence group, resided 20 years and more, was consisted of 73 persons.

1) The ages when immigrated and at present averaged  $32.0 \pm 12.5$  years and  $52.4 \pm 12.4$  years, respectively.

2) The subjects recognized their health and nutritional status mostly more than average.

3) The Korean-Canadians/Americans, who resided there for almost two decades, still kept Korean foods and food-patterns very strongly. Parents' generation showed less acculturated food patterns than children's generation.

4) Kimchi was eaten every meals or at least everyday among almost 90% of Korean-Canadians/Americans and Korean soups (kuk and jigae) was done everyday or at least 3 – 4 times per week among almost 90% of them.

5) As favorite Korean dishes, there were some differences that the parents liked jigaes, kuk, namul and fish-kui, but their children did jigaes and galbi. Also longer residence group showed higher preferences of Korean foods than the shorter one.

6) As special foods on special occasions, they enjoyed mandu with rice cake soup on New Year day or halfmoon ricecake on Thanksgiving day, being same as in Korea.

7) In spite of keeping Korean foods and food-patterns very strongly, they gave high values mostly on their dietary acculturation and on educating their children about diets. The longer residence group showed slightly more positive acculturation attitudes than the shorter one and it was possibly assumed that being longer and older abroad seemed to make immigrants keep their dietary traditions less.

The results of this study have limited generalizability be-

cause the subjects were limited numbers and convenience samples. However, this study is one of a few reports done with Korean immigrants, who resided over two decades mostly. When working for Korean-Canadian/American adults or seniors, some implies by the length of residence as well as their strongness or weakness of dietary traditions must be considered.

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