Published in final edited form as:

J Immigr Minor Health. 2013 December ; 15(6): . doi:10.1007/s10903-012-9706-3.

A bi-national comparative study of health behaviors of Koreans in South Korea and Korean Americans in California

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Abstract

Background—Few studies have compared health behaviors of Koreans in their home country and Korean Americans.

Methods—Using 2009 data from the Community Health Survey (South Korea) and the California Health Interview Survey (USA), we compared native Koreans and Korean Americans, grouped by level of acculturation, on prevalence of specific health behaviors and self-rated health, and conducted multiple logistic regression comparing the odds of these behaviors among the groups adjusted for demographic variables.

Results—While Korean Americans exhibit healthier behaviors than Koreans in some areas (e.g., reduced smoking and binge drinking in men, increased utilization of flu vaccinations), we also identified problem behaviors (e.g., increased body weight in Korean American men, uptake of alcohol drinking and smoking among Korean American women).

Discussion—Findings support the critical need for health promotion programs addressing these health behaviors to prevent future health problems among Korean Americans.

Keywords

California Health Interview Survey; South Korea Community Health Survey; body mass index; smoking; alcohol intake; self-reported health; acculturation

Introduction

Asian Americans are the fastest growing population in the United States, with an estimated increase of 43% between 2000 and 2010 (1). Korean Americans are the fifth most populous Asian American group in the U.S. (about 1.6 million), with about one third of them living in California. The vast majority of Korean Americans in California are foreign-born (2).

Based on the National Health Interview Surveys conducted by the Centers for Disease Control and Prevention, fewer Korean Americans report chronic health conditions such as heart disease, hypertension, asthma, cancer and diabetes than Non-Hispanic Whites (3). However, studies suggest that incidence of chronic diseases increases in immigrant populations within a few years of immigrating to the United States (4-6). There are also disparities by nativity. For example, a study examining breast cancer incidence among Asian Americans found an 80% higher incidence among U.S. born Chinese and a 30% higher

incidence among U.S. born Filipino American women compared to their foreign-born counterparts. While the authors were not able to conduct similar analyses for Korean American women due to the small number of U.S. born women, they found a 4% annual increase in breast cancer incidence between 1998 and 2004 among foreign-born Korean American women (6). These findings point to the importance of the socio-cultural environment and lifestyle factors in preventing disease and promoting health.

A number of studies have compared health behaviors such as smoking, drinking alcohol and being overweight among Asian American groups and compared them to Non-Hispanic Whites (7-12), and some studies have found significant differences in the prevalence of specific health behaviors in Asian American groups by country of birth, length of residence in the U.S., or English language proficiency (7,8,11-14). These variables have been used as measures of acculturation. Acculturation is a complex concept that describes the process by which the attitudes and behaviors of people from one culture are substantially changed as a result of contact with a different culture (15). Many studies have reported the impact of acculturation as an independent predictor of health indicators and health behaviors in various populations (16, 17). However, few studies have compared health behaviors among Koreans and Korean Americans. Therefore, this analysis was conducted to compare the prevalence of health behaviors between Koreans residing in South Korea and Korean Americans residing in California, based on data from two population-based surveys. We also examined the association of acculturation with health behaviors within the Korean American sample.

Methods

Participants

We used data from participants in two population-based surveys, conducted in South Korea and in California. The native Korean sample was obtained from the 2009 Korean Community Health Survey (KCHS), and the sample of Korean Americans was obtained from the 2009 California Health Interview Survey (CHIS).

The KCHS is an annual nationwide health survey conducted in South Korea since 2008 to provide population-based estimates of health indicators to support health promotion and disease prevention programs. The 2009 KCHS used a multistage sampling design to obtain a representative sample of adults aged 19 years or older. Within each of 253 geographic strata, 90 primary sampling units (PSUs) corresponding to smaller geographic entities were randomly selected, followed by random selection of 5-8 households within PSU and in-person interview of all adults in the household. Households were sampled from a registry of residents (18). The 2009 KCHS interviewed a total of 230,715 adults.

The CHIS is a biennial statewide survey conducted in California since 2001 to provide population-based estimates of health indicators for all major racial/ethnic groups and several Asian racial/ethnic subgroups. The CHIS is the largest state health survey in the U.S. The 2009 CHIS employed a multistage sampling design (19). Within each of 56 geographic strata, random-digit-dial that included telephone numbers assigned to both landline and cellular service was used to sample households; within each household, one adult (age 18 and over) was randomly selected for a telephone interview. Koreans and Vietnamese were oversampled to increase the precision of estimates for these groups. Interviews were conducted in English, Spanish, Cantonese, Mandarin, Vietnamese and Korean (19). The 2009 CHIS interviewed a total of 47,614 adults. We identified 923 respondents (1.9%) as Korean American, based on the UCLA Center for Health Policy Research Asian group definition.

The 2009 KCHS and 2009 CHIS were merged to produce the analysis data set. However, the two samples differed substantially regarding the proportions of urban residents (44% in KCHS versus 98% in CHIS) and the proportions with high level of education (60% in KCHS versus 94% in CHIS). Therefore, to increase comparability of the two samples, we restricted the analysis to individuals aged 19 years or older with at least a high school education who lived in urban areas (92,791 of 230,715 respondents in the South Korean sample (40%) and 854 of 923 respondents in the California Korean sample (93%).

Variables

All variables were based on self report. Demographic variables included age, gender, marital status, educational level and household income. Age at time of survey was classified as 19-29 yr, 30-39 yr, 40-49 yr, 50-59 yr, 60-69 yr and 70 yr or over. Marital status was classified as married/living with partner, divorced/separated/widowed, or never married. Educational level was classified as high school only or at least some university. In order to obtain a measure of relative socioeconomic status within the respondent's society, household income was categorized into quintiles based on household income within each entire original sample, before the restrictions based on race/ethnicity, age, education and urban residence.

Since there is no single widely accepted measure of acculturation for Korean Americans, we developed a classification of acculturation using cluster analysis. Variables used in the cluster analysis were citizenship (born in US, naturalized, non-naturalized), English proficiency (speak English only, very well, well, not well, not at all), language of interview (English, Korean), percent of life in US (0-20%, 21-40%, 41-60%, 61-80%, 81%+), language of mass media such as TV, radio and news papers (English, English and Korean, only Korean), language used with friends (English, English and Korean, only Korean) and language used at home (English, English and Korean, only Korean). A hierarchical cluster analysis using Ward's method (squared Euclidean distance) indicated three clusters (Table 1). The first cluster (traditional group) was entirely foreign-born, mostly non-citizens, had low percent lifetime in the US and had low English language usage and proficiency. The second cluster (bicultural group) included mostly naturalized citizens who had <60% lifetime in the US and had high rates of dual language (English and Korean) usage. The third cluster (acculturated group) included predominantly US-born citizens and naturalized citizens with 60% percent lifetime in the US and high English usage and proficiency.

The health behaviors we examined were alcohol use, binge drinking, current smoking, obesity/overweight, influenza vaccination and self-rated general health. Alcohol drinking was defined as any drinking in the past year. Binge drinking was defined in CHIS as having five or more drinks for males or four or more drinks for females on at least one occasion during the previous month; in KCHS, binge drinking was defined as having seven or more drinks for males or five or more drinks for females on at least one occasion during the previous month. Current smokers were defined as persons who smoked more than 100 cigarettes during their lifetime and currently smoked. All others were classified as not currently smoking. Body mass index (BMI) was calculated by dividing self-reported body weight (kg) by the square of self-reported height (m^2) and overweight/obesity was defined as BMI ≥ 25.0 kg/ m^2 . Influenza vaccination was defined as having received vaccination for influenza in the past year. Self-rated general health was ascertained from the question "In general, how do you feel about your health?" with response categories very good, good, fair, poor, or very poor in the KCHS and excellent, very good, good, fair, or poor in the CHIS. Because the response options in the two surveys were not comparable, we limited our analysis to the CHIS sample. In CHIS, good self-rated health was defined by merging excellent, very good and good.

Analysis

The sample weighting schemes were incompatible across the two surveys. In addition, the samples were restricted by age, urban residence and education level, yielding samples not representative of the overall populations. Therefore analyses were conducted without sampling weights.

We assessed differences in demographic characteristics among the four groups defined as native Koreans in South Korea and traditional, bicultural and acculturated Korean Americans using chi-square tests. We compared the prevalence of health behaviors among these four groups in unadjusted and adjusted analyses. Unadjusted differences in prevalence were examined using chi-square tests, with stratification on sex. Adjusted odds ratios and 95% confidence intervals for each health behavior were obtained by fitting multiple logistic regression models for each health behavior, modeled as a dichotomous outcome. These models were stratified on sex and adjusted for age, marital status, education level and income. Acculturation was entered as a four-level categorical variable with traditional Korean Americans as the reference group.

Data analysis was performed using SPSS 12.0 and the level of significance was set to 0.05.

Results

The analytic samples consisted of 92,761 native Koreans from the KCHS and 854 Korean Americans from the CHIS. Ninety-one percent (778/854) of the Korean American respondents were born outside the US. Socio-demographic characteristics including gender, age, marital status, educational level and household income differed among the four groups defined as native Koreans, traditional, bicultural and acculturated Korean Americans (Table 2). The acculturated Korean American group had significantly higher proportions of younger individuals and persons who were never married as well as higher household income than the native Korean or other groups of Korean Americans.

The unadjusted prevalence of health behaviors among the four groups, stratified by sex, is shown in Table 3. For men, the traditional Korean American group had significantly lower percentages of any alcohol drinking in the past year (62% vs. 85%), binge drinking in the past month (15% vs. 33%), and current smoking (20% vs. 49%), and significantly higher percentages of obesity (46% vs. 29%) and influenza vaccination (51% vs. 22%) than the native Korean group. Of all health behaviors, percentage of influenza vaccination (51% vs. 61% vs. 37%) and good self-rated health (67% vs. 76% vs. 93%) differed significantly between the traditional, the bicultural and the acculturated Korean American groups.

For women, the traditional Korean Americans had significantly lower percentages of any alcohol drinking in past year (57% vs. 66%) and binge drinking in the past month (3% vs. 7%), and significantly higher percentages of obesity (18% vs. 13%) and influenza vaccination (51% vs. 25%) than the native Korean group. The percentages of alcohol drinking (57% vs. 54% vs. 79%), current smoking (3% vs. 3% vs. 14%), and good self-rated health (58% vs. 59% vs. 90%) differed significantly between the traditional, the bicultural and the acculturated Korean American groups.

Table 4 present odds ratios for health behaviors for the native, bicultural and acculturated groups compared to the traditional group, with adjustment for age, marital status, educational level and level of household income. For men, the native group had higher odds ratios for alcohol drinking (1.7, 95% CI=1.2-2.6), binge drinking (2.1, 95% CI=1.2-3.5), and current smoking (2.7, 95% CI=1.7-4.2), and lower odds ratios for obesity (0.4, 95% CI=0.3-0.6) and influenza vaccination (0.5, 95% CI=0.4-0.8). The bicultural group had a

higher odds ratio for alcohol drinking (1.9, 95% CI=1.1-3.4). For women, the native group had lower odds ratios for alcohol drinking (0.6, 95% CI=0.5-0.8) and influenza vaccination (0.5, 95% CI=0.4-0.7). The acculturated group had higher odds ratios for current smoking (4.9, 95% CI=1.8-13.0), and good self-rated health (4.4, 95% CI=2.1-9.3).

Discussion

Previous research suggests that most immigrants to the United States are searching for better life opportunities including work and education. Many are highly motivated and well resourced, and many have higher levels of education and better health than their peers who do not emigrate (20). It is also known that socio-demographic characteristics are important determinants of health behaviors (21). In this comparison of Koreans and Korean Americans, we restricted the samples from both countries to respondents 19 years and over who graduated high school and were living in urban areas in order to make the two samples more comparable. Most (93%) of the California Korean sample but only 40% of the Korean sample met these inclusion criteria. Our efforts to make the two samples comparable were not entirely successful. Despite the restrictions, Korean Americans residing in California were older and had a higher level of education than Koreans living in South Korea. However, even after adjusting for the remaining socio-demographic differences, our findings suggest that some health behaviors are quite different between Koreans in South Korea and Korean Americans living in California.

Alcohol intake and smoking

Our findings confirm other studies that report high smoking rates among Korean men and very low rates among Korean women (22). Among men, Koreans were significantly more likely than Korean Americans to report binge drinking and current smoking. Korea has the highest rates of binge drinking and smoking among men in the world (23). Both drinking and smoking are accepted as social practice by Korean men and may even be viewed as necessary for living in harmony with others (23, 24). However, several articles have described an increased risk for cancers in the digestive tract among individuals with the variant aldehyde dehydrogenase 2 gene if they drink alcohol, and about 40% of East Asians possess the variant gene (25-27). Smoking and drinking are much less acceptable among Korean women. The difference in smoking rates between Korean and Korean American men residing in California has been attributed to California's anti-smoking policy and cultural norms against smoking (23,28). Similar mechanisms such as strict drinking and driving laws and cultural norms against binge drinking in the United States may contribute to lower rates of binge drinking in the California sample (29). Very few women reported binge drinking in the California sample. However, the odds of current smoking were higher among the acculturated Korean American women than among the traditional Korean American women. Previous studies have found that acculturation is positively associated with current smoking in Hispanic and Asian American women (8, 9, 30, 31). Thus, smoking is an important growing health risk behavior for Korean American women, especially as their level of acculturation increases.

Obesity

Korean men were significantly less likely than the traditional Korean American men to be overweight or obese, but this result was not seen in women. In contrast to a previous report (11, 12), in adjusted analyses there were no significant differences in obesity between the three groups of acculturation of either sex. Unfortunately, the two surveys did not have enough common questions to compare dietary intake or physical activity in the two samples.

Influenza vaccination

The lower odds of influenza vaccination among Koreans than among Korean Americans may be due to differences in vaccination guidelines and policies in the two countries. The Korea Center for Disease Control and Prevention (KCDC) recommends annual flu vaccinations to all citizens aged 65 years or older, and vaccination for the elderly is administered free of charge at public health centers and with a small co-payment at private clinics (32). In the U.S., the influenza vaccine is recommended annually for everyone 6 months and older and the vaccine is widely available in local pharmacies and facility-based flu clinics with a small co-payment (33).

Self-rated health status

Previous studies have reported that immigrants are generally healthier than their U.S. born counterparts and this advantage gradually diminishes with acculturation (34, 35). However, in our analysis, the traditional group reported significantly poorer health than the acculturated group, especially for women. The traditional U.S. immigrants may face more problems as they adjust to their new environment. Many are disadvantaged with respect to health care access, health insurance coverage, health care utilization, and community support (36), which may contribute to their low self-rated health. More acculturated Korean Americans have generally high levels of education and income, which is usually accompanied by better access to health care and may explain their high self-rated health status. An alternative explanation is that the traditional Korean Americans responded differently to the survey question than their more acculturated counterparts, anchoring their responses lower on the scale.

Limitations

Both samples were restricted to high school graduates 19 years and older living in urban areas. CHIS also had a larger proportion of foreign-born Korean Americans compared to census information. Therefore, the populations do not represent the entire Korean population in South Korea or in California. Although we controlled for differences in age, marital status, levels of education and income in the multivariate analyses, the samples may have differed with respect to other characteristics that were not controlled for. Our analyses were limited to health behaviors that were assessed in both surveys. All data were based on self-reports, which may be subject to social desirability or recall bias, and lead to both over- and underreporting of health behaviors (37-39). CHIS participants were interviewed by telephone, whereas KCHS participants were interviewed face-to-face. While face-to-face interviews are better suited for establishing trust and rapport between the respondents and the interviewers, interviewees may be less likely to report behaviors that are not socially acceptable. For example, current smoking in women may have been underreported in the KCHS compared to the CHIS, based on a study indicating that many women identified as current smokers through assessment of urinary cotinine levels self-reported as nonsmokers during face to face interview (40). The small sample size of Korean Americans limited power for comparisons among the traditional, bicultural and acculturated Korean American groups. Nevertheless, we were able to detect some significant differences among these groups. Further, we did not utilize the survey sampling weights because the KCHS and CHIS used incompatible weighting methods and our inclusion criteria yielded samples not representative of the overall populations; thus our estimates may not reflect population-based estimates.

Conclusions

Despite these limitations, to the best of our knowledge, this is one of the first analyses using population-based data that provides a comparison of health behaviors between Koreans in

their home country and Korean Americans. While Korean Americans make healthier choices than Koreans in some areas (e.g., reduced smoking and alcohol consumption in males, increased utilization of flu vaccinations), this comparison also points to problem behaviors (e.g., increased body weight in Korean American men, uptake of alcohol drinking and smoking among more acculturated Korean American women) that should be addressed now to prevent future health problems in this population. Our findings support the critical need for health promotion programs addressing these health behaviors to prevent future health problems among Korean Americans.

Acknowledgments

C.M.C. was supported by NIH/NCI grant P30 CA16042 and NIH/NCRR UL1 TR000124. A.E.M. was supported by the UCLA Cancer Prevention and Control Research Network (U48/CC915773), the Charles Drew University/UCLA Cancer Center Partnership to Eliminate Cancer Health Disparities (NIH U54 CA143931), and the UCLA Kaiser Permanente Center for Health Equity.

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Table 1

Acculturation-related characteristics of Korean Americans in the 2009 California Health Interview Survey (N=854)

Variables	Group1	Group2	Group3	Total	P for χ^2 test
English proficiency					
Not well/not at all	282 (80)	176 (52)	0 (0)	458 (54)	<0.0001
Well/very well/only	69 (20)	165 (48)	162 (100)	396 (46)	
Language of interview					
English	34 (10)	110 (32)	162 (100)	306 (36)	<0.0001
Korean	317 (90)	231 (68)	0 (0)	548 (64)	
Citizenship					
US-born citizen	0 (0)	0 (0)	74 (46)	76 (9)	<0.0001
Naturalized citizen	138 (39)	324 (95)	82 (51)	544 (64)	
Non-naturalized	213 (61)	15 (4)	6 (3)	234 (27)	
Percent life in US					
< 60%	351 (100)	280 (82)	14 (9)	645 (76)	<0.0001
$\geq$ 60%	0 (0)	61 (18)	148 (91)	209 (24)	
Language of mass media					
Only English	29 (8)	51 (15)	146 (90)	226 (26)	<0.0001
Both language	96 (27)	146 (43)	14 (9)	256 (30)	
Only Korean	226 (64)	144 (42)	2 (1)	372 (44)	
Language with friends					
Only English	4 (1)	14 (4)	148 (91)	166 (19)	<0.0001
Both language	70 (20)	132 (39)	11 (7)	213 (25)	
Only Korean	277 (79)	195 (57)	3 (2)	475 (56)	
Language at home					
Only English	0 (0)	0 (0)	94 (58)	94 (11)	<0.0001
Both language	100 (28)	156 (46)	66 (41)	322 (38)	
Korean	251 (72)	185 (54)	2 (1)	438 (51)	
Total	351 (41)	341 (40)	162 (19)	854 (100)	

Group 1 (Traditional): speak English not well or not at all, usually speak Korean, born in Korea, or lower % life in US (< 60%)

Group 2 (Bicultural): bilingual (Korean and English), higher % in having a citizenship, lower % life in US (< 60%)

Group 3 (Acculturated): usually speak and use English in life, born in USA, having a naturalized citizenship or higher % life in US (>= 60%)

Table 2

Socio-demographic characteristics of four Korean groups defined by country of residence and acculturation, 2009 Korean Community Health Survey and 2009 California Health Interview Survey

	Native Koreans (n=92,761)	Traditional Korean Americans (n=351)	Bicultural Korean Americans (n=341)	Acculturated Korean Americans (n=162)	p-value1)	p-value2)	p-value3)
Gender							
Male	47383 (51)	130 (37)	119 (35)	54 (33)	<0.0001	0.688	<0.0001
Female	45378 (49)	221 (62)	222 (65)	108 (67)			
Age							
19-29	20997 (23)	16 (5)	9 (3)	40 (25)	<0.0001	<0.0001	<0.0001
30-39	26788 (29)	53 (15)	13 (4)	49 (30)			
40-49	24834 (27)	115 (33)	64 (19)	40 (25)			
50-59	12561 (14)	45 (13)	76 (22)	16 (7)			
60-69	5203 (6)	51 (14)	101 (29)	11 (3)			
70+	2378 (3)	71 (20)	78 (23)	17 (10)			
Marital status							
Married/live with partner	61163 (66)	277 (79)	263 (77)	90 (56)	<0.0001	<0.0001	<0.0001
Widowed/separated/divorced	7610 (8)	52 (15)	62 (18)	14 (9)			
Never married	23932 (26)	22 (6)	16 (5)	58 (36)			
Highest educational level							
High school	50922 (55)	116 (33)	99 (29)	35 (22)	<0.0001	0.030	<0.0001
University and over	41839 (45)	235 (67)	242 (71)	117 (78)			
Monthly household income (quintile)							
1st	4526 (5)	117 (33)	73 (21)	10 (6)	<0.0001	<0.0001	<0.0001
2nd	13451 (15)	64 (18)	67 (20)	17 (10)			
3rd	20779 (24)	68 (20)	80 (23)	27 (17)			
4th	20351 (23)	52 (15)	65 (19)	45 (28)			
5th	29427 (33)	50 (14)	56 (16)	63 (39)			

1) P-value for comparison of native Koreans and traditional Korean Americans

2) P-value for comparison of traditional, bicultural, and acculturated Korean Americans

3) P-value for comparison among native Koreans, traditional, bicultural, acculturated Korean Americans

Unadjusted prevalence of health behaviors for four Korean groups defined by country of residence and acculturation, stratified by sex

Table 3

	Men						Women					
	Native Koreans (N=47383)	Traditional Korean Americans (N=130)	Bicultural Korean Americans (N=119)	Acculturated Korean Americans (N=54)	p-value 1)	p-value 2)	Native Koreans (N=45378)	Traditional Korean Americans (N=221)	Bicultural Korean Americans (N=222)	Acculturated Korean Americans (N=108)	p-value 1)	p-value 2)
Alcohol drinking												
Yes	40334 (85)	81 (62)	86 (72)	42 (78)	<0.0001	0.070	29856 (66)	127 (57)	119 (54)	85 (79)	0.010	<0.0001
No	7041 (15)	49 (38)	33 (28)	12 (22)			15508 (34)	94 (43)	103 (46)	23 (21)		
Binge drinking												
Yes	15617 (33)	19 (15)	13 (11)	5 (9)	<0.0001	0.516	3373 (7)	6 (3)	4 (2)	5 (5)	0.007	0.334
No	31744 (67)	111 (85)	106 (89)	49 (91)			41995 (93)	215 (97)	218 (98)	103 (95)		
Current smoking												
Yes	22958 (49)	26 (20)	19 (16)	9 (17)	<0.0001	0.687	1408 (3)	7 (3)	6 (3)	15 (14)	0.846	<0.0001
No	24383 (51)	104 (80)	100 (84)	45 (83)			43946 (97)	214 (97)	216 (97)	93 (86)		
Overweight/obese												
Yes	13459 (29)	60 (46)	42 (35)	24 (44)	<0.0001	0.198	5704(13)	39 (18)	46 (21)	14 (13)	0.030	0.224
No	33695 (71)	70 (54)	77 (65)	30 (56)			39284 (87)	182 (82)	176 (79)	94 (87)		
Flu shot in past 1 year												
Yes	10298 (22)	67 (51)	72 (61)	20 (37)	<0.0001	0.016	11294 (25)	113 (51)	123 (55)	49 (45)	<0.0001	0.225
No	37079 (78)	63 (49)	47 (39)	34 (63)			34069 (75)	108 (49)	99 (45)	59 (55)		
Self-rated health												
Good	NA	87 (67)	91 (76)	50 (93)		0.001	NA	129 (58)	130 (59)	97 (90)		<0.0001
Poor	NA	43 (33)	28 (24)	4 (7)			NA	92 (42)	92 (41)	11 (10)		

1) P-value for comparison between native Koreans and traditional Korean Americans

2) P-value for comparison between traditional, bicultural and acculturated Korean Americans

NA = Not available

Table 4
Results of multiple logistic regression analysis for health behavior outcomes, stratified by sex

Predictor variables	Outcome variables				
	Alcohol drinking Adj. OR (95% CI) *	Binge drinking Adj. OR (95% CI) *	Current smoking Adj. OR (95% CI) *	Overweight/Obesity Adj. OR (95% CI) *	Flu shot Adj. OR (95% CI) *
Men					
Native	1.7 (1.2-2.6)	2.1 (1.2-3.5)	2.7 (1.7-4.2)	0.4 (0.3-0.6)	0.5 (0.4-0.8)
Traditional	1.0	1.0	1.0	1.0	1.0
Bicultural	1.9 (1.1-3.4)	0.9 (0.4-1.9)	1.1 (0.6-2.1)	0.7 (0.4-1.1)	1.0 (0.6-1.8)
Acculturated	1.2 (0.5-2.5)	0.5 (0.2-1.4)	0.7 (0.3-1.6)	0.9 (0.5-1.7)	1.0 (0.5-2.0)
Women					
Native	0.6 (0.5-0.8)	1.3 (0.6-3.0)	0.6 (0.3-1.4)	1.0 (0.7-1.4)	0.5 (0.4-0.7)
Traditional	1.0	1.0	1.0	1.0	1.0
Bicultural	1.2 (0.8-1.8)	1.0 (0.3-3.6)	1.0 (0.3-3.0)	1.1 (0.7-1.8)	0.8 (0.5-1.2)
Acculturated	1.5 (0.8-2.7)	0.9 (0.3-3.1)	4.9 (1.8-13.0)	1.2 (0.6-2.4)	1.3 (0.8-2.2)
					4.4 (2.1-9.3)

* Adj. OR (95% CI): Adjusted odds ratio (95% confidence interval), adjusted for age, marital status, educational level and level of income