

Dietary Acculturation of Filipino-American Students from One University in Michigan

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Abstract

Background: Filipino-Americans (FA) are the third largest Asian ethnic group in the US. Statistics have shown that FAs have high preponderance of CVD. Just like other immigrants, FAs undergo acculturation to their new country, which extends to diet. There is a link between diet and risk to common chronic diseases.

Purpose/Aim: Guided by the Socio-Ecological Model, the purpose of this study was to determine dietary acculturation of FA students from one university in Michigan.

Method: A descriptive survey study was performed. Students from one university in Southeast Michigan were recruited. Dietary Acculturation Questionnaire for Filipino-Americans (DAQFA) was used to assess dietary acculturation.

Results: Twenty-two students completed the survey. Overall DA score of the students in the DAQFA was 11.6 (SD=2.3). The DA score in the Filipino foods was 4.05 ± 1.3 on a scale of 0-5, whereas the DA score with Western foods was 7.6 ± 2.3 on a scale of 0-10. No difference in DA scores between male and female students, and age.

Conclusion: Our results indicated that second-generation FA students were not dietary acculturated to either Filipino or Western foods. This study provided a small, yet, significant evidence on FAs diet and acculturation particularly among second-generation FA students. This study has significant implication to nursing research.

1. INTRODUCTION

An estimated 3.9M Filipino-Americans (FA) are living in the United States (US) in 2015 (Pew Research Center, 2017). Filipino-Americans are the third largest Asian ethnic group in the US (US Census Bureau, 2012). Statistics have also shown that FAs have a high preponderance of cardiovascular disease (CVD). FAs have the highest prevalence of hypertension (51-53%), and diabetes (15.6%) compared to all racial/ethnic groups (Ursua et al., 2013; Choi, Liu, Palaniappan, Wang, & Wang, 2013). In addition, FAs have higher body mass index (BMI) compared to other Asian American subgroups, and FA women immigrants have a significantly higher obesity rate compared to Filipino women in the Philippines (Vargas & Jurado, 2016). Increased risk to these common chronic conditions may be linked to dietary acculturation.

Just like other immigrants, FAs undergo acculturation to their new country. Acculturation

is the cultural modification of an individual or group by adapting to or borrowing traits from another culture (Seráfica, Lane, Ceria-Ulep, 2013). New immigrant's acculturation extends to diet. Dietary acculturation (DA) is defined as immigrants finding ways to use traditional foods and/or consume new food (Dela Cruz, Lao, & Heinlein, 2013). Traditional Filipino foods such as *lumpia*, *lechon*, *kare-kare*, *krispy pata*, and *adobo* are typically high in salt and fats, which are identified risk factors for CVD (Johnson-Koslow et al., 2011).

This, in addition to increased consumption of Western fast foods including McDonalds and Kentucky Fried Chicken escalates their risk for CVD. Despite the increased prevalence of CVD, studies on DA among FAs are limited and mostly focused on first-generation immigrants (Vargas & Jurado, 2016; Seráfica, et al., 2013). Therefore, the purpose of this study is to determine dietary acculturation of FA students from one university in Michigan.

2. THEORETICAL FRAMEWORK

Socio-ecological model was used to guide the study (Glanz, Burke & Rimer, 2015). Socio-Ecological Model, a prevention framework, was a complex interplay between the individual, community, relationship and social factors.

Amongst our students, there is an interconnectedness between their eating pattern and diet consumption (behavior), age and personal preference (personal factor), and family, friends and classmates, and availability of foods served in the university and surrounding areas (environment) (Fig. 1).

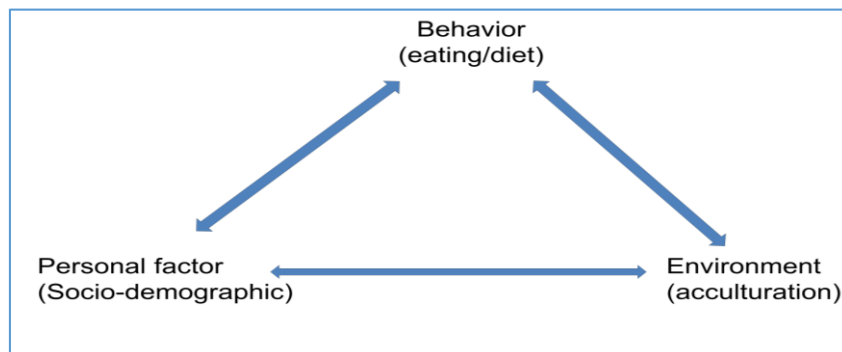


Figure 1. Adapted Socio-Ecological Model used in this study. Glanz, K., Burke, L. E., & Rimer, B. K. (2015). *Health behavior theories*. In J. B. Butts & K. L. Rich (Eds). *Philosophies & theories for advanced nursing practice*, Chap. 11, pp246-247 Burlington, MA: Jones & Bartlett

3. METHOD

Design

A quantitative, descriptive survey was performed.

Sample and setting

Self-identified FA students were recruited from our university. Students did not need to be enrolled in our university; any students for other universities who attended any FA meetings at the university were invited to participate.

Ethical consideration

Approval from the Institutional Review Board was received and granted exempt status.

Procedure

Flyers were poster throughout the university. Study packet was distributed by the PI at FA organization meetings at the university. The packet contains information sheet, short demographic information, and two surveys (DA and health literacy). Potential participants were asked to return the study material to the PI when completed.

Outcomes

Socio-demographic Questionnaire

The following socio-demographic information was obtained: age, gender, marital status, place of birth, year living in the US, and generation status.

Dietary Acculturation. The level of dietary acculturation was measured using Dietary Acculturation Questionnaire for Filipino-Americans (DAQFA) (Seráfica, Lane & Ceria-

Ulep, 2013). This was a 15-item Yes/No questionnaire based on the student's dietary practices in the past month. The DAQFA questionnaire consisted of two subscales – 5-item traditional Filipino DA reflective of the Filipino dietary pattern, and 10-item reflecting Western eating patterns. A higher score in the Filipino subscale is indicative of maintaining traditional Filipino eating pattern; meaning lower level of DA. The higher score on the Western subscale indicated a higher level of DA; reflecting adaption to the Western eating habits. The instruments had established good internal consistency (Kuder-Richardson 20= 0.78 for Western DA subscale and 0.70 for the Filipino DA subscale). Cronbach's alpha coefficient ranged 0.79 for FAs (Seráfica, Lane & Ceria-Ulep, 2013). Permission to use this scale was obtained from the survey developer.

Statistical Method

Data was using the SPSS Version 24. Frequencies, means, percentages, and standard deviation were used to analyze socio-demographic data, and DA scores. T-test was used to determine difference in DA between male and female students.

4. RESULTS

Participant Data

Thirty-six surveys were distributed. Twenty-two students returned the survey with a response rate of 61%. The students consisted of 55% females, with a mean age of 21.4 (SD = 3.6) years of age, 73% were born in the US and 50% speak English at home, and the others spoke Tagalog, Visaya,

or Ilocano. The majority of the students (75%) self-identified themselves as second generation FAs. Fifty percent of the students were enrolled in health science programs, including nursing. A majority (64%) of the students reported that English was the main language spoken at home. The mean health literacy score was 4.2, indicating adequate health literacy. Table 1 presents the socio-demographics of the students.

Table1. *Socio-demographics characteristics of students (n=22)*

| Demographic characteristics | n=22 |
|--------------------------------------|--|
| Age | Mean = 21.4 years; (S.D.= 3.6, (Range - L-17-H-33) |
| Gender | % (n) |
| - Male | 45% (10) |
| - Female | 55% (12) |
| Place of birth | % (n) |
| - US | 73% (16) |
| - Outside of US | 27% (6) |
| Marital Status | % (n) |
| - Single | 64% (14) |
| - Married | 9% (2) |
| - In a relationship | 27% (6) |
| Generation Status | % (n) |
| - First generation | 20% (4) |
| - Second generation | 75% (15) |
| - Third generation | 5% (1) |
| Program of Study | % (n) |
| - Arts | 5 (23%) |
| - Engineering and IT | 2 (9%) |
| - Health Sciences, including Nursing | 11 (50%) |
| - Business | 1 (4) |
| - Missing | 3 (14%) |
| Languages spoken at home | % (n) |
| - English | 14 (64%) |
| - Filipino dialects | 8 (26%) |
| Health Literacy Score | Mean – 4.2 |

Dietary Acculturation

The overall DA score of the students in the DAQFA was 11.6 (SD=2.3). The DA score in the Filipino foods was 4.05± 1.3 on a scale of 0-5, whereas the DA score with Western foods was 7.6 ±2.3 on a scale of 0-10. There was no difference in DA scores between male and female students, and age. There was a negative correlation between years living in the US and DA, however not statistically significant.

5. DISCUSSION

The aim of the present study was to assess DA of FA students from one university in Michigan. Our result indicated that second-generation FA students were not dietary acculturated to either Filipino or Western foods. In comparison with

other studies on DA among FAs, a similar finding was found among first-generation FA immigrants from New Jersey (Vargas & Jurado, 2016). This may be explained by the emerging biculturalism of first-generation FAs, consistent with the study by Dela Cruz et al (2013) of first-generation FAs from Southern California. On the other hand, we could not attribute this to our finding since most of the students are second generation FAs. In contrast, a qualitative study by Capua (2013) who interviewed 11 Filipinos–Americans identified one theme that FAs prioritized Filipino foods.

Dietary acculturation has also been studied among Korean-Americans, Japanese-Americans, and Chinese-Americans and Chinese-Canadians. A descriptive study by Kim et al (2007) compared DA of 398 hypertensive and normotensive Korean Americans and Korean natives did not find any statistical difference in DA among the groups (Kim, Lee, Ahn, Bowen, & Lee, 2007). The present study, however, did not survey any existing medical condition. A study by Pierce and colleagues (2007) studied DA of 636 second generation (Nisei, offspring of Japanese immigrant) and third generation (Sansei, offspring of Nisei) Japanese-Americans. Their study showed second generation Japanese-Americans had higher Japanese food factor score compared to third generation Japanese-Americans with higher Western food factor score, which was significant. Their findings supported their hypothesis that dietary patterns are part of acculturation process. (Pierce et al., 2007). A DA scale developed by Satia and colleagues (2001) was used to measure DA among Chinese-Americans and Chinese Canadians, and reported that most participants followed Western dietary patterns.

6. CONCLUSION

To summarize, the concept of DA is understudied particularly among FAs, who are at increased risk for CVD. Our study investigated DA of FA students from one university in Michigan. This study provided a small, yet, significant evidence on FAs diet and acculturation particularly among second-generation FA students. This study has significant implication to nursing research. First-generation FAs were expected towards biculturalism, however our study suggested that it could extend to second generation FAs. This study needs to be repeated in a larger sample size and from various settings. The present study, however is only a descriptive design. Additional comparative study of DA of Asian Americans with other outcomes variables such as dietary

habits, acculturation, and other anthropometric measures are needed. From nursing education perspective, our findings may provide a different viewpoint when teaching health promotion and developing diet-based educational programs specific to second generation FA students.

This study acknowledges some limitation. One limitation was that the project was to fulfill the requirement of the undergraduate research award, thus sample size is small using convenience sampling. Power analysis was not performed for the sample calculation. It was a descriptive study. Students were only recruited from our university. Future study is needed with larger sample size, and students recruited from different universities across the US.

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