



ISSN: 2586-7342 © 2020 KODISA & KJFHC
KJFHC website: <http://www.kjfhc.or.kr>
doi: <http://dx.doi.org/10.13106/kjfhc.2020.vol6.no6.9>

A Study on the Nutrition Knowledge about the Eating and Food Consumption of Adults in Seoul

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Received: October 07, 2020. Revised: November 09, 2020. Accepted: December 05, 2020.

Abstract

In this study, we want to investigate the nutrition knowledge, eating habits, and food intake patterns of adults who have a strong preference for sugary snacks or sugary drinks. In this study, 83 students, or 33.1% of the 267 adults, were found to belong to the sugary food group, and the results of the survey were as follows. In terms of the level of eating habits, both male and female adults see significant differences among the groups. In the question of the regularity of the three meals, the quality of breakfast, the balance of meals, the level of consumption of green vegetables, meat, fish and milk, the number of sugars was low, and the number of sugars, instant foods, ham and sausages was high. In terms of nutritional knowledge, both male and female adults had a low number of sugary foods, and there were significant differences among the groups. In terms of the frequency of food intake, the frequency of eating rice and mixed grain rice was low, and the frequency of eating ramen and bread was high.

Keywords: Traditional Drink, Physicochemical Characteristics, Sensory Evaluations

Major classifications: Food Science, Health Science.

1. Introduction

Adulthood is a period of John's growth with the body and mind, and matures with emotions, knowledge and sex. This is a period of vigorous body development, and therefore the need for nutrients is higher than ever in the life cycle and the eating habits are fixed (Belbase & Morgan, 1994). A well-balanced diet in adulthood is very important because a fixed diet at this time has a profound effect on the attitude of eating habits after adulthood (Babatunde & Qaim, 2010). However, adults often

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find eating habits undesirable due to excessive study, stress from adulthood psychological instability, and interest in their appearance. Adulthood is said to be able to improve the health of adults by failing to meet the nutritional needs of their growth due to heavy meals or by disproportionately contributing to their growth (Dority et al, 2010). As Korea's diet has become more Westernized recently, adults are being challenged by excessive consumption of fat and sugar due to various snacks, instant foods, and soft drinks (Elliott, 2008). The study conducted by adults was mainly conducted on vegetables and it is said that the method of selecting picky adults depends on food preferences. There were few cases in which adults systematically studied table-based foods, especially sugar-based foods that could be placed on sugary snacks or sugary drinks (Haddad & Kennedy, 1994). In this study, a group of sugary adults is classified based on not only food preferences but also eating habits and food intake frequency, assuming that symbols themselves cannot be the exact basis for changing food intake. This study is a survey study for nutrition education for adults who have a strong preference for sugary snacks or sugary drinks, and examines their knowledge, eating habits, and food intake patterns.

2. Research Method

In this study, 267 adults in Seoul were surveyed. A total of 267 adults, 166 male and 101 female adults, excluding insufficient data, were counted as sugarcoats and groups according to the level of food preference, eating habits, and frequency of food intake. It is prescribed that all of the following conditions are satisfied if it belongs to the sugar-based food group (Lee, 2019). In the case of food preferences, the number of sugary foods such as snacks, candies, chocolates, and carbonated drinks should be up to 15 to 267 or higher based on the number of people who enjoy sweet foods such as snacks, chocolates, and the degree to which they frequently drink soft drinks such as soda and cola, and the number of food intake should be 10 to 2 to 9 or higher, and the level of intake of food intake should be one day, empty chocolate, carbonated sugar candy, daily (Lee, 2020). Therefore, 111 adults who meet all three conditions are classified as "sugar type" group, 83 adults are classified as "case," and 33.13% of "sugar type" group is classified as "sugar type" group. The investigation period is from June 1, 2019 to July 30, 2019. The questionnaire used in this study is developed based that non-investigation is conducted to review the questions, revise and supplement them, and use them in this survey (Madar, 2013). One question in the sugar symbol is composed of three items, and based on three questions of snacks, chocolate, candy, and carbonated drinks, the answer is 'Very Like=5, Like=4, Normal=3, Hate=2, Hate=1' based on the 5 Likert scale (Popkin, 2006). Items that undermine adults' eating habits are composed of 17 questions. It consists of items that ask adults about their eating habits such as regularity of their usual meals, whether they bought breakfast, amount of meals, amount of snacks, meat, fish, milk, vegetables, and fruit sugars. Based on the 5 Likert-type scale, answer 'Very next=5, next=4, Beau Tong = 3, No = 1.'. The number of intake of each food is divided into nine stages: three times a day, twice a day, once a day, five to six times a week, three to four times a week, one to two times a month, one time a month, and the frequency of intake of each food is used by converting it into the number of times a day (Phillips & Hallman, 2013). The data processing analysis of this study uses SAS 9.4 statistical package to produce statistics such as frequency, percent mean and standard deviation. The comparison of the dietary status and other matters with the sugary food group was made by using t-test, and Pearson offset analysis was conducted to check the offset between the intake frequency of sugars and the intake frequency of foods with different sugar food preferences, sugars and nutritional knowledge (Ho, 2005).

3. Results

Adulthood is more influenced by the trend of advertising media such as peer groups and TV than by family and friends, so it is important to educate adults about nutrition that allows them to choose the right food on their own and have proper eating habits (Kelly & Chapman, 2007). Since prolonged wrong eating habits can cause health problems, systematic nutrition education is urgently needed to identify problems in the sugar-based group through nutrition knowledge, eating habits, and food intake frequency surveys and to prevent future problems in advance (Kim, 2003). It is necessary to educate adults of the sugary food group who have a high preference for sugary foods about problems that can occur when excessive consumption of sugary foods.

The total number of samples was 267, the mean value was 1.30, and the standard deviation was 0.46. The statistical analysis determined that the difference between the variables was 0.21 and that the significance was very significant at .0001.

Table 1: Statistical Analysis

N	267	Sum Weights	267
Mean	1.30	Sum Observations	349
Std Deviation	0.46	Variance	0.21
Skewness	0.84	Kurtosis	-1.30
Uncorrected SS	513	Corrected SS	56.81
Coeff Variation	35.35	Std Error Mean	0.02

As shown in Table 1, the mean value was 1.30 and the standard deviation was 0.46. The statistical analysis determined that the significance was very significant at .0001.

Table 2: Variability Analysis

Basic Statistical Measures				
Nutrition Knowledge				
Mean	1.30	Std Deviation	0.46	
Median	1.00	Variance	0.21	
Mode	1.00	Range	1.00	
		Interquartile Range	1.00	
Food Consumption				
Test	Statistic		p Value	
Student's t	t	46.21	Pr > t	<.0001
Sign	M	133.5	Pr >= M	<.0001
Signed Rank	S	17889	Pr >= S	<.0001

As shown in Table 2, as a result of statistical analysis between variables related to nutrition knowledge and food consumption, the variance was 0.21 and the range was 1.00. In addition, the t value between nutrition knowledge and food consumption, was the largest at 46.21, indicating that the research results were very consistent with the direction of research in the overall paper, and p value was <.0001.

Table 3: ANOVA Test

N	267	Sum Weights	272
Mean	5.35	Sum Observations	1455
Std Deviation	2.37	Variance	5.61
Skewness	-0.31	Kurtosis	-1.14
Uncorrected SS	9303	Corrected SS	1519.82
Coeff Variation	44.27	Std Error Mean	0.14
Basic Statistical Measures			
Nutrition Knowledge			
Mean	5.35	Std Deviation	2.37

Median	6.00	Variance	5.61
Mode	8.00	Range	8.00
		Interquartile Range	5.00

Food Consumption

Test	Statistic		p Value	
Student's t	t	37.25	Pr > t	<.0001
Sign	M	136	Pr >= M	<.0001
Signed Rank	S	18564	Pr >= S	<.0001

ANOVA Test Criteria and F Approximations for the Hypothesis of No Overall gum Effect

H = Type III SSCP Matrix for gum

E = Error SSCP Matrix

S=2 M=-0.5 N=6

Statistic	Value	F Value	Num DF	Den DF	Pr > F
Wilks' Lambda	0.12	12.51	4	28	<.0001
Pillai's Trace	1.06	8.53	4	30	0.0001
Hotelling-Lawley Trace	5.27	18.10	4	15.81	<.0001
Roy's Greatest Root	4.96	37.27	2	15	<.0001

NOTE: F Statistic for Roy's Greatest Root is an upper bound.

NOTE: F Statistic for Wilks' Lambda is exact.

Alpha	0.05
Error Degrees of Freedom	15
Error Mean Square	160.77
Critical Value of F	3.68
Minimum Significant Difference	19.86

As shown in Table 3, as a result of statistical analysis between variables related to food intake, the mean value was 5.35, the standard deviation was 2.37, the test result was 5.61, and the significance was very significant as .0001. In addition, a multivariate analysis of variance showed that the F value of Wilks' Lambda was 12.51 and was very significant, indicating that the correlation between food intake and consumer consumption behavior was very high. In addition, as shown in Table 3, I-S, i.e., the difference in the mean value between food intake and food consumption behavior, was the largest at 43.25, indicating that the research results were very consistent with the direction of research in the overall paper, and that reliability was also not significantly bad at 63%.

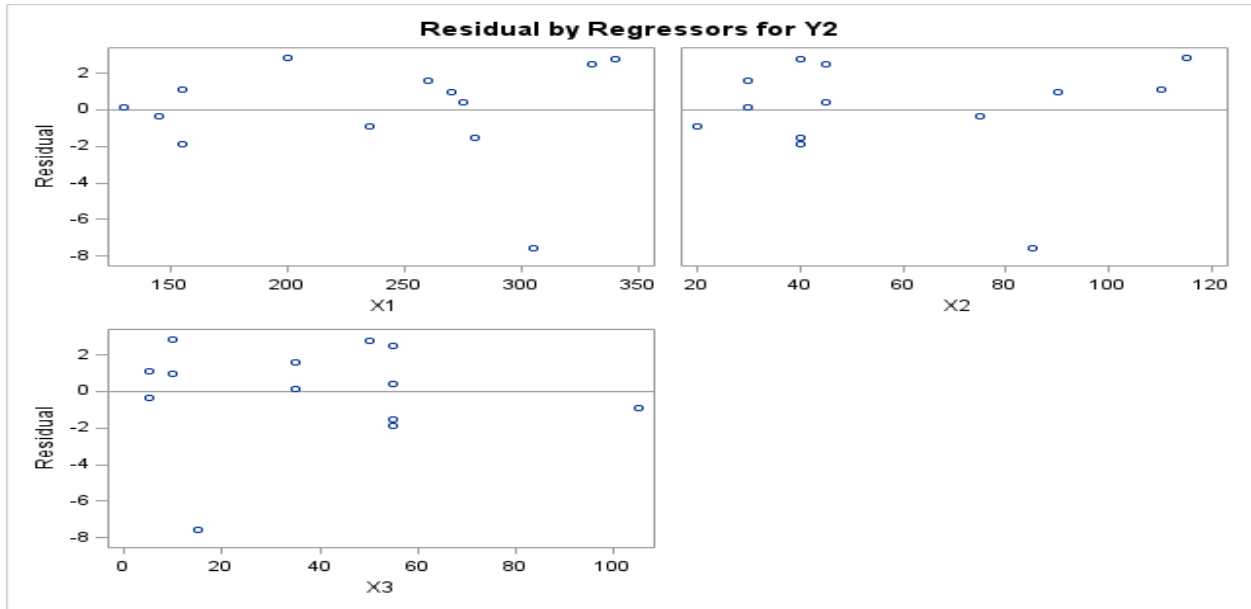


Figure 1: Residual Regressor Analysis

As you can see in Figure 1, the residual analysis shows that the reference value is generally all exceeded, so although the value is a little lower in terms of density, it is thought to be of great significance in terms of the importance of the overall analysis value. This is a very close part of the comprehensive relationship between food intake and nutrition knowledge, and it can be seen that it is a very reliable part of the comprehensive category.

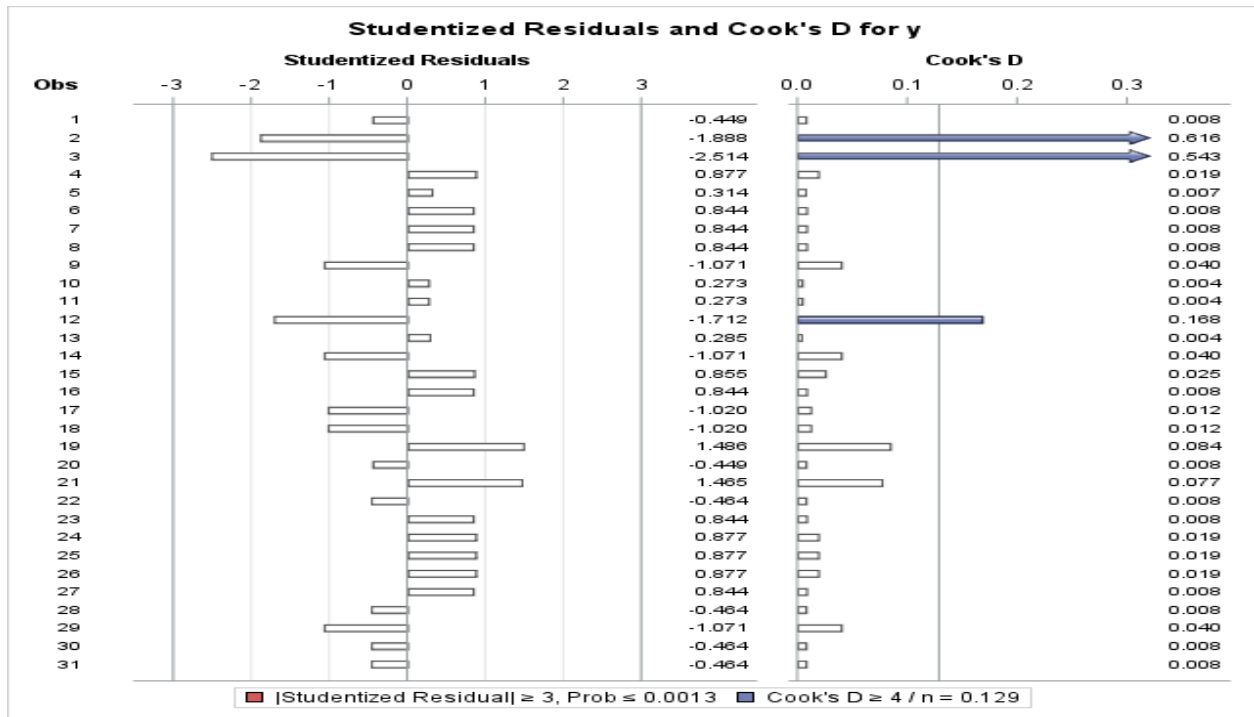


Figure 2: Residual Analysis

Figure 2 shows that the Cook's D values of Obs 2 and 3 are relatively greater than the other observations of 0.616 and 0.543,

with the overall residuals showing a large difference, which is a relatively desirable result in terms of the difference test. As you can see in Figure 2, the respondents were told to think about brand x as if they were people, and to think about a series of human features associated with the brand. Next, respondents were asked to think about how they would see themselves and describe their nutrition knowledge and food consumption. After completing this, respondents expressed a global perception of the degree of consistency or discrepancy between the brand's personality and how they view themselves (Lee, 2020). The same procedure was used for ideal self-convergence. From a dependent variable perspective, we evaluated emotional brand attachment using 10 items previously adopted in the measures used in consumer studies (Bhat, 2001). (Bornemann, Homburg, 2011) put these items on the seven-second order factor (i.e., excitement, joy, and happiness) as suggested.

4. Conclusion

There was a significant offset between the frequency of intake of sugars and the frequency of intake of fast food, and it was found that the more often you eat sugary foods, the higher the frequency of eating fast food. The results are comparable to the results of a adults in Seoul. Fast food has only high calories, high levels of nutrients such as vitamins, minerals and fiber, and high levels of trans fats and sodium, causing obesity, diabetes and heart disease, so adults in the sugary group should come up with alternatives to fast food intake and educate them to focus on behavioral changes. On the other hand, the higher the intake frequency of sugars, the lower the intake frequency of vegetables and milk, which will require nutrition education to ensure that essential nutrients are not lacking in adulthood and nutrition education to inform the importance of desirable eating habits in adulthood.

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