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Changes in Nutrition of Adult's Favorite Foods of High calorie, Low-nutritive Foods

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Abstract

This study analyzed in nutrient contents changes of adult's favorite foods between March 2019 and July 2020 after policy implementation nutrient-poor foods based on special act on safety control of adult's dietary life in Korea. Among adult's favorite foods manufactured or sold in 2020 as well as 2019, calories and key nutrients in breads, ice creams and pizzas were improved in comparison to those in the other food groups. However, most of the changes in calories or key nutrient contents exist. The newly introduced candies, breads showed slightly greater improvements in calories and key nutrient contents than in 2019. On the other hand, some negative changes were found in newly introduced chocolates in comparison to previous ones. Overall, policy implementation on foods seemed to induce changes in nutrient contents of adult's favorite foods. In particular, nutrition education is reported to have a positive impact on adult's frequency and preference for processed foods, and more systematic and continuous nutrition education measures should be devised to help adult as consumers selectively purchase healthy foods. This research is meaningful in that it is the first study to analyze the quality changes of adult's favorite foods since the high-calorie and low-nutrient food management policy.

Keywords: Food Environment, Nutrient Poor Food, Food Policy

Major classification: Food science, Health science.

1. Introduction

With domestic economic growth and the development of the food industry, the sources of nutrients that adult can choose are becoming more diverse. (Jung and Lee (2007) Adult can substitute meals with fast food such as pizza, hamburgers, and ramen, or take nutrients through snacks and bread-like snacks other than meals. According to a (Kim et al., 2017) previous study of university school students in Seoul from 2019 to 2020, 60.4 percent consumed carbonated drinks more than twice a week, 42.6 percent consumed cookies three to three times a week, and 81.6 percent consumed more than once a week, especially ramen. A 2019 study of senior university school students in some parts of Seoul Province and a 2019 study of university school students in the part of Province showed that most of them prefer processed foods with high sugar, fat, sodium and calories as snacks, and a similar trend was reported in a (Lee, 2007) 2007 study of university school students in some parts of Seoul Province. In addition, the 10th online survey of youth health behaviors for teenagers aged 22 to 28 in 2019 showed a relatively high intake rate of carbonated and sweet drinks.

2. Research Methods

List of adult's favorite foods released monthly by the Ministry of Food and Drug Safety as of the end of March 2019, and list of adult's favorite foods as of the end of August 2019, (Ahn and Kim (2016) when this study was collected, respectively, to investigate whether the calories and nutrients of adult's favorite foods are improved following the full implementation of the high-calorie, low-nutritive food management policy respectively (Cho et al., 2006). Information on the total capacity and the amount of calories and nutrients serving of the adult's favorite food classified by type of food was provided upon request from the Ministry of Food and Drug Safety's dietary safety. For snacks, candy, ice cream, bread, chocolate, ice cream, lactic acid, carbonated beverage, mixed beverage, fruit drink, fish sausage, processed milk, fermented milk, and for meal substitute, lactose noodles and noodles, instant food, hamburgers and pizza (Song and Baek (1998).

3. Research Results

Adult's Favorite Food Status

As of the end of March 2019 and the end of August 2019, the status of high-calorie and low-nutrient foods is as shown in Table 1, respectively, which has continued to be produced and sold as of the end of March 2019 and August 2019. A total of 350 adult's favorite foods continued to be produced and sold, accounting for a large number of bread, snacks, pizza, candy and chocolate, of which 260 were high-calorie and low-nutrient foods, with the number of candy, pizza, fruit drink, chocolate and carbonated drinks. In addition, a total of 260 Seoul adult's favorite foods were pizza, bread, instant food, chocolate, and snacks, and 200 of them were high-calorie and low-nutrient foods, which were pizza, bread, fruit drink, and candy.

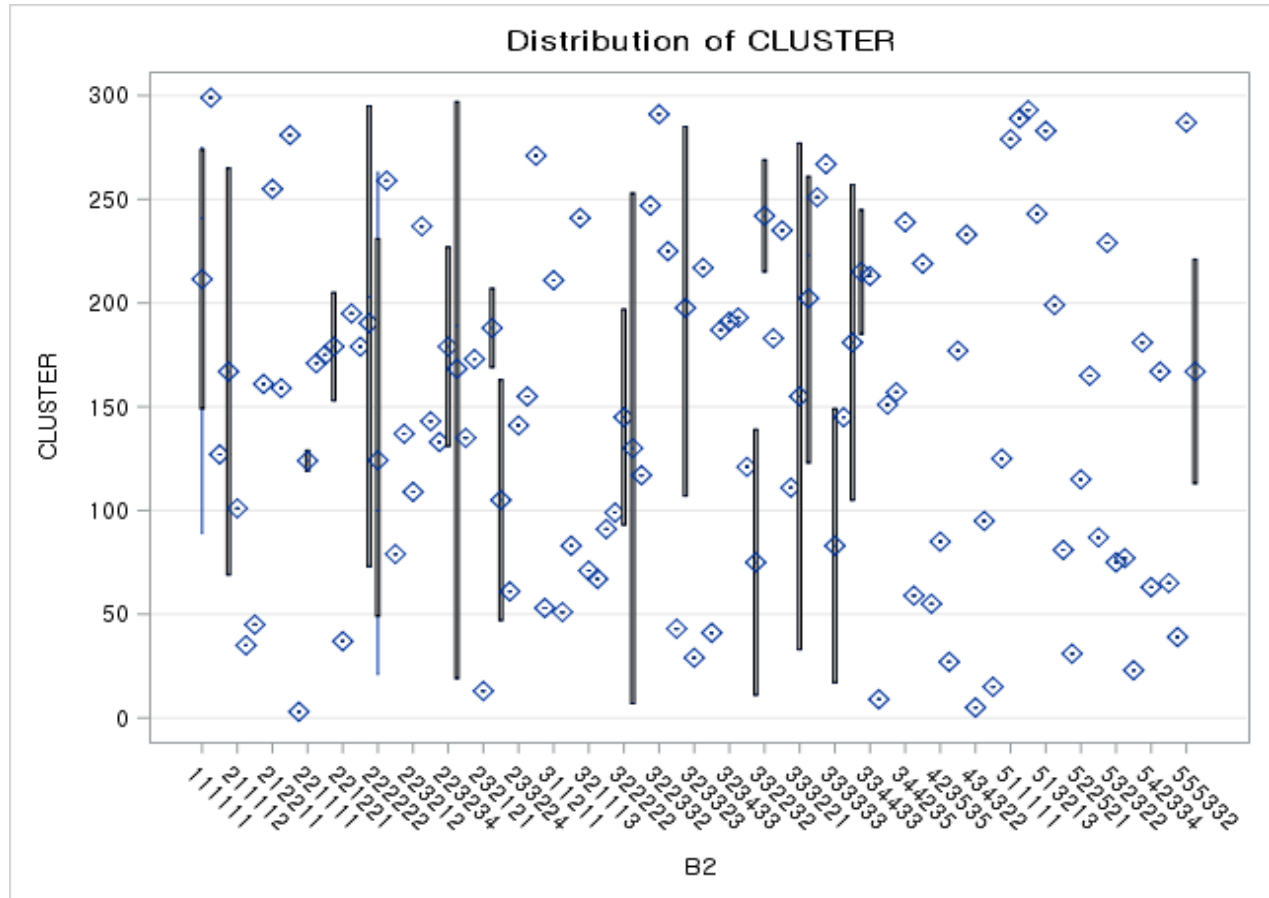


Figure 1: Consumption distribution of primary low-nutritive foods shopper

Table 1: Factors influencing changes in the nutrition components of adult's favorite foods

Initial Seeds					
Cluster	Factor1	Factor2	Factor3	Factor4	Factor5
1	-4.74	0.51	-0.22	1.43	-0.99
2	0.10	1.78	-3.09	1.87	-2.58
3	1.44	-3.25	0.43	-1.62	-0.27
Minimum Distance Between Initial Seeds =					6.00
Iteration History					
Iteration	Criterion	Relative Change in Cluster Seeds			
		1	2	3	
1	1.82	0.59	0.60	0.59	
2	0.90	0.08	0.04	0.02	
3	0.89	0.03	0.03	0.02	
4	0.89	0.01	0.02	0.01	
5	0.88	0.01	0.03	0.03	
6	0.88	0	0.02	0.01	
Convergence criterion is satisfied.					
Criterion Based on Final Seeds =					0.88

Considering that bread is relatively high in protein among adult's favorite foods for snacks, (Lim and Kim (1998) this suggests that the improvement in the nutritional content of bread was made through the reduction of calories or saturated fat content, not sugar, following the implementation of the high-calorie and low-nutritive food management policy. However, (Shin et al., 2005) the increase in the average sugar content of bread, which is considered a major source of sugars for adult after beverages, could negatively affect the energy intake ratio of adult through sugars, so (Shin and Lee (2005) attention will be needed to the trend of nutritional changes in breads in the future. Meanwhile, in May 2019, the government announced the first comprehensive plan to reduce sugars with the aim of helping the nation's own awareness of sugars, improving its appetite, and boosting the production and distribution of sugary foods.

4. Conclusion

In particular, nutrition education is reported to have a positive impact on adult's frequency and preference for processed foods, and more systematic and continuous nutrition education measures should be devised to help adult as consumers selectively purchase healthy foods and form healthy eating habits. This research is meaningful in that it is the first study to analyze the quality changes of adult's favorite foods since the high-calorie and low-nutrient food management policy was implemented in earnest, and it is expected to be used as a basic data for the establishment, revision and supplementation of related policies in the future. However, this study has the limitation of only the results of 2019 and 2020, and it is necessary to analyze the qualitative changes in adult's favorite foods from a long-term perspective in the future.

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