

Effect of Food Habits and Perceived Food Quality on Satisfaction with Elementary School Lunch in Gyeonggi Province

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ABSTRACT: The provincial education office considers providing school lunch as a foodservice and intends to improve consumer satisfaction. This study investigates the effect of student food habits and perceived food quality on satisfaction with school lunch based on Oliver's expectancy disconfirmation theory. We test the moderating effect of student gender and school conditions, such as the location of the school, job position of the nutrition teacher, renovating kitchen and food distributing place. Questionnaires were collected from 240 sixth graders in the eight elementary schools in Gyeonggi province from August to September 2014. Excluding inadequate questionnaires, 208 were analyzed. PLS (Partial Least Square) and bootstrap t-tests were conducted for this study. The results showed food habits affected satisfaction directly ($p < 0.01$). The perceived food quality of the school lunch service mediated this relationship in part ($p < 0.01$). Moderating effects identified were gender ($p < 0.1$), nutrition teacher's position ($p < 0.05$), and renovating kitchen ($p < 0.1$), but not location of school or distributing place. The study revealed the importance of student food habits and perceived food quality, which had an influence on satisfaction. We make a distinction between the concepts of satisfaction and quality so as to improve student satisfaction. When it comes to offering education program about food habits, the schools with old-fashion kitchen is given priority to than renovating one.

Keywords: school lunch, satisfaction, food habit, quality, renovating kitchen, nutrition teacher

INTRODUCTION

Since 2006, the present school lunch policy has been operated applying the reformation of 'The Law of School Foodservice', which aimed to solve the problems of the commissioned foodservices and enable the use of agro and livestock products of superior quality. In 2007, the central government enacted 'The Revised Standard Ordinance of School Foodservice Support' and made local governments improve the quality of local school

foodservice depending on those regions' conditions. Then the government of Gyeonggi-Do enacted 'The Ordinance of School Foodservice Support' in 2008, which introduced foodservice supporting mainly local agricultural products in 2009, and changed it to support mainly environmentally friendly products in 2011. Additionally, beginning from September 2010, free foodservice was offered for every fifth and sixth grade student in urban and rural areas, and then the scope of free foodservice beneficiaries expanded to all elementary school

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students from 2011(Go et al 2014).

The former commissioned operation of school food-services was switched to direct operation, which led to considerable improvements in transparency in purchasing products and supporting the expenses of the free foodservice operations. Until now, the improvements in school foodservices has mostly concentrated on structural and systematic changes in areas such as the laws and budgeting. The provincial education office recognizes the need to prove operational and educational aspects of school food-services. However, annual surveys dealing with school foodservice satisfaction tend to be limited to only assessing the quality of food(Yoon et al 2005, Hong & Koo 2013). Since the quality of food is just one of the relevant factors that affect overall food satisfaction, we need to examine other factors regarding operational and educational aspects of school foodservices.

Satisfaction refers to "Consumer's cognitive state, evaluation, and emotional responses that he/she was properly or un-properly compensated for his/her payment(Engel & Blackwell 1982, Babin & Griffin 1998)". According to Oliver's expectancy disconfirmation theory(Oliver 1980), consumers have pre-expectations and their satisfaction differs depending on degrees of disconfirmation between expectation and outcome. Concretely, with high pre-expectation, satisfaction can be at a low level despite a high level of outcome, and can move to a high from a low level outcome when pre-expectation is relatively low. Further, satisfaction works as a kind of parameter, which turns ex ante attitude to an after ex post attitude towards an item. Although the pre-set attitude is comparatively negative, it can become positive when proper satisfaction is achieved. Thus satisfaction performs a crucial role in motivating consumers to maintain their consuming behavior.

On the other hand, quality can be defined as "Overall inspiration toward the service offerer, and relative superiority or inferiority of the service itself." According to Servqual(Yi & Lee 2001), different from satisfaction, the quality does not necessarily need to involve any former experiences. The service is measured by perceived food quality of the service receiver instead of assessment of objectives, because it has properties such as intangibility, and hetero-

geneity that refer to independent experiences by each case, and inseparability between the service provider and receiver. For quality, the perception toward overall services can be a factor that affects satisfaction which includes individual emotional conditions.

In addition to the quality of food, student food habits can be considered an affecting factor for school foodservice satisfaction. A habit is generally described as "A series of learned behaviors that automatically respond to specific situations(Yoon et al 2005)". Habits are conceptualized as the frequency of past behaviors and non-conscious activity so as to require little concentration to achieve a particular purpose. Food habits are part of everyday dietary life, which includes repetitive behavioral patterns including skipping meals, eating only what one wants, having snacks and so on(Ku & Lee 2000). Good food habits imply eating a balanced meal regularly, not skipping meals, and not having too many snacks. Food habits that are formed from one's past behaviors can be effective in assessing future eating experiences. To sum up, each factor needs to be measured by multi-dimensional analysis rather than single-dimensional, because satisfaction includes emotional conditions, while quality and individual food habits consist of various attributes from different dimensions.

This study examines the effect of student food habits and the quality of food on their foodservice satisfaction. Furthermore, we examine whether satisfaction from eating habits, which involve automatic responses, is different from group to group depending on region, job position of nutrition teachers

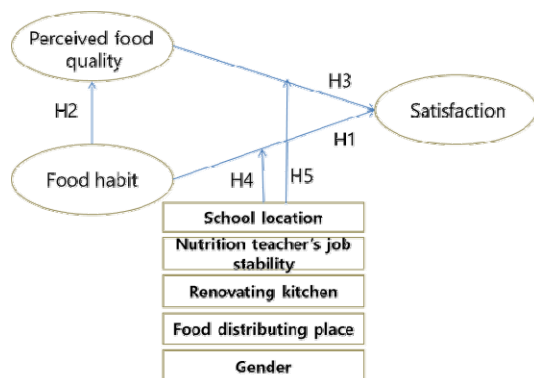


Figure 1. Research model.

Table 1. Hypothesis

H1	Food habits have a positive effect on satisfaction.
H2	Food habits have a positive effect on perceived food quality.
H3	Perceived food quality of food has a positive effect on satisfaction.
H4-1	The effect of food habits on satisfaction is moderated depending on the location of the school.
H4-2	The effect of food habits on satisfaction is moderated depending on the nutrition teacher's job stability.
H4-3	The effect of food habits on satisfaction is moderated depending on the renovating kitchen.
H4-4	The effect of food habits on satisfaction is moderated depending on the food distributing place.
H4-5	The effect of food habits on satisfaction is moderated depending on student gender.
H5-1	The effect of perceived food quality on satisfaction is moderated depending on the location of the school.
H5-2	The effect of perceived food quality on satisfaction is moderated depending on the nutrition teacher's job stability.
H5-3	The effect of perceived food quality on satisfaction is moderated depending on the renovating kitchen.
H5-4	The effect of perceived food quality on satisfaction is moderated depending on the food distributing place.
H5-5	The effect of perceived food quality on satisfaction is moderated depending on student gender.

(part time or full time), renovating kitchen, and so on. We set the hypotheses as below to conduct this study (Figure 1).

RESEARCH METHODS

The surveys were conducted from August to September 2014 on sixth grade students in schools operating environmentally friendly and free foodservices in the Gyeonggi area. Samples consist of six schools in Goyang-si, and two schools in Paju-si. As shown in Figure 2, schools in Goyang-si were examined that have an average level of food quality, while schools in Paju-si that have a lower level of food quality

than average were examined. Paju-si and Goyang-si are close to each other and each can be regarded as a typical rural and urban area in Gyeonggi province, respectively.

The students were provided an explanation of the survey and a proper method of response by the nutrition teacher along with the class teacher. We received 240 samples from 30 students per each school but analyzed 208 surveys, excluding 32 that had too many missing values.

Development of Survey Method

The survey questionnaire was composed mainly of four categories, which are Satisfaction with School

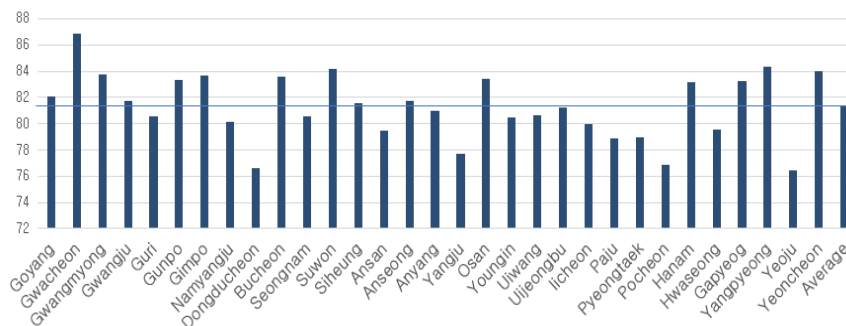


Figure 2. Perceived food quality of school lunch by city(Go et al 2014).

Foodservices, Quality of Food, Individual Food Habits, and the Current State of the School. Each of the questions was carefully designed for the purpose of this study, while referring to past studies. Each factor is measured by a five point Likert-type scale, from '1-Strongly Disagree' to '5-Strongly Agree'. As seen in Table 2, 'Satisfaction with environmentally friendly foodservice', 'Satisfaction with free foodservices', and 'Enjoyment of the lunchtime' were set as items for the 'Satisfaction With School Foodservices' category(Yoon et al 2005; Yi & Lee 2001); 'Proper temperature', 'Various menus', 'Weak salty taste and not using condiments', and 'Proper serving quantity' were used for the 'Perceived Food Quality of Food' category(Parasuraman & Zeithamal 1988; Oliver 1980, Ku & Lee 2000, Chin & Todd 1995) and 'Eating balanced side dishes', 'Eating vegetables', 'Having regular meals', and 'Not leaving leftovers' for the 'Individual Food Habits' category(Hong and Koo 2013; Ku & Lee 2000).

Statistical Analysis Method

This study applies Partial Least Squares (PLS) for statistical analysis between latent variables. PLS, which is a form of the Structural Equation Model for

multivariable analysis, is not restricted by the rigid rule that all the samples should have normal distribution, and maximizes path-coefficients rather than finds model-fits. The R^2 value of the PLS model can show how well independent variables explain dependent variables(Barclay et al 1995). Generally, it is reasonable to analyze samples at least 10 times larger compared to the number of measured factors of the latent variable that has the biggest number of factors(Efron & Tibshiranim 2002; Chin 1998). The latent variable with the highest number of factors in this study is 'Satisfaction with School Foodservice', which has four measured factors, so that our 208 samples are sufficient enough for the SEM method.

We used the bootstrap technique for examining moderate effects from gender and the conditions of each school. The bootstrap technique is applied in cases in which an estimation and test for a population with limited samples is needed(Efron & Tibshiranim 2002). We use 1,000 times resampling from the original samples without any concrete prerequisites to find out confidence intervals. The statistic package 'R' is used for the analytic processes.

RESULTS AND DISCUSSION

Table 2. Questionnaire

Latent variable	Definition	Measurement	Variable
Food habit	Pattern of foods consumption	I eat evenly side dish.	Ha1
		I eat vegetable.	Ha2
		I have regularly breakfast and dinner.	Ha3
		I left little food.	Ha4
Perceived food quality	Attributes of quality	Temperature	Qual1
		Variety of menu	Qual2
		Low salt and non-MSG	Qual3
		Enough amount of foods	Qual4
Satisfaction	Subjective evaluation and emotion of free school meals using environment-friendly foods	Satisfaction of school meals using environment-friendly foods	Sat1
		Satisfaction of free school meals	Sat2
		Enjoyment of school meal times	En

General Characteristics of Subjects

116 female students and 92 male students were surveyed. The average student population for a school was 874, with a maximum 1,390 and minimum 500. Among the eight elementary schools, six schools are located in urban areas and two schools are in rural areas. Four schools have modernized foodservice facilities and another four have not modernized facilities. From an employment context, six schools employed permanent nutritionists or nutrition teachers while two schools have temporary nutritionists or nutrition teachers.

Analysis of Reliability and Validity of Constructs

At first, we considered whether measurements in this study have proper reliability or not. Reliability refers to how steady the results are when repetitive measurements are conducted. Convergent validities such as the Dillon-Goldstein Rho, Average Variance Extracted (AVE), and Cronbach's Alpha value are applied to define reliability. The reliability level of measurements is regarded as proper when the Dillon-

Goldstein Rho value is over 0.7, AVE value is over 0.5, and Cronbach's Alpha value is over 0.7 (Fornell & Larcker 1981). As shown in Table 3, we obtained 0.861 for the Dillon-Goldstein Rho value, 0.615 for AVE, and 0.780 for the Cronbach Alpha value, so that the measurement 'Food Habits' is a reliable variable. The measurements 'Perceived Food Quality of Food' and 'Satisfaction for School Foodservice' are also reliable because they have, respectively, validities of 0.869 and 0.852 for each Dillon-Goldstein Rho value, 0.622 and 0.655 for each AVE, and 0.798 and 0.738 for each Cronbach Alpha values.

Next we conducted Confirmatory Factor Analysis to examine convergent validities and discriminant validity. Generally it is desirable to have convergent validity when factor loading is between 0.5 and 0.7. Factor loadings of each measurement factor are shown in Table 4. 'Having Regular Meals' and 'Not Leaving Leftovers' were 0.635 and 0.674 for each factor loading in 'Food Habits', and between 0.2 and 0.3 in 'Perceived Food Quality of Food' and 'Satisfaction with School Foodservice', respectively, so that they can be used as measurement factors for 'Food

Table 3. Reliability test

Latent variable	Dillon-Goldstein's Rho	AVE	Cronbach's alpha
Food habits	0.86	0.62	0.78
Perceived food quality	0.87	0.62	0.80
Satisfaction	0.85	0.66	0.74

Table 4. Factor loadings

	Food habits	Perceived food quality	Satisfaction
Ha1	0.91	0.42	0.39
Ha2	0.88	0.36	0.31
Ha3	0.64	0.26	0.33
Ha4	0.67	0.22	0.35
Qual1	0.23	0.78	0.49
Qual2	0.32	0.81	0.54
Qual3	0.27	0.77	0.53
Qual4	0.46	0.80	0.43
Sat1	0.24	0.46	0.79
Sat2	0.38	0.55	0.87
En	0.42	0.50	0.77

Table 5. Discriminant validity test

Latent variable	Food habits	Perceived food quality	Satisfaction
Food habits	0.78	-	-
Perceived food quality	0.42	0.79	-
Satisfaction	0.44	0.64	0.81

habits.'

For the examination of discriminant validity of the latent variables, we conducted cross-loading analysis and an AVE square root test. Generally it is desirable to have discriminant validity when the AVE square root is over 0.7 and cross-loading with another construct is under 0.7. There is proper discriminant validity when the AVE square root value of a latent variable is bigger than the correlation coefficient value with other latent variables (Chin 1998). As shown in Table 5, discriminant validities are proper enough because the AVE square root values of each latent variable are 0.784, 0.789, and 0.809, respectively, which are over 0.7; and the correlation coefficient values between each latent variable are 0.441, 0.440, and 0.626, respectively, which are under 0.7 and smaller than the AVE square root values.

Difference in Satisfaction Depending on Food Habits and Perceived Food Quality of Food

As a result of the analysis, the R^2 value which is an explanation power of the effect of 'Perceived Food Quality of Food' and 'Food Habits' for 'Satisfaction with School Foodservices' is 0.432. The R^2 for the effect of 'Food Habits' on 'Perceived Food Quality' is 0.169. The R^2 level for 'Satisfaction with School Foodservices' is over 0.4 so that it has an intermediate level of explanation power.

Table 6 contains the results of the test for path-

coefficients and significance along with the adoption decision for each hypothesis. According to the result of the path-coefficients analysis, H1 to H3 can be adopted with a 0.535 path coefficient for 'Perceived Food Quality of Food' and 'Satisfaction for School Foodservice'; 0.220 for 'Food habits' for 'Satisfaction with School Foodservice'; and 0.411 for 'Food habits' for 'Perceived Food Quality', which are all significant at the $p < 0.01$ level.

Following is a discussion of the results. First, satisfaction is a different notion from quality, and can be measured with multi-dimensional aspects. It is valid to set enjoyment of the lunchtime as one of the measurements because satisfaction is not only a cognitive status, but also an emotional status. Second, individual food habits can affect the satisfaction level for school foodservices. Students who have good food habits such as eating balanced side dishes with plenty of vegetables or eating meals regularly tend to show a relatively higher satisfaction level with school foodservices. Third, perceived food quality of food can be a parameter, which partially moderates effects between food habits and satisfaction. Students tend to show higher satisfaction for school foodservices and think the quality of food is higher when they have more balanced and regular food habits. Thus, the quality of food can be said to have a partial influence on satisfaction level.

Table 6. Hypothesis test

Hypothesis	Path	Path coefficient	T-value	Acceptance
H1	Food habits → satisfaction	0.22***	6.47	accept
H2	Food habits → perceived food quality	0.41***	3.81	accept
H3	Perceived food quality → satisfaction	0.54***	9.27	accept

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table 7. Moderating effect between food habit and satisfaction

Hypothesis	Groups	Path coefficient	t-test	Acceptance	
H4-1	Location	Rural	0.23	0.68	Reject
		Urban	0.21		
H4-2	Nutrition teacher's position	Permanent	0.19	1.79**	Accept
		Temporary	0.44		
H4-3	Renovating kitchen	Renovating	0.16	1.15*	Accept
		Not yet	0.33		
H4-4	Food distributing place	Cafeteria	0.30	1.06	Reject
		Classroom	0.16		
H4-5	Gender	Male	0.14	1.44*	Accept
		Female	0.31		

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Relation between Food Habits and Satisfaction depending on Gender and School Characteristics

The examination of the moderating effect of student gender and school characteristics on the relation between food habits and satisfaction is provided in the following Table 7. In schools with temporary nutritionists or nutrition teachers, the path coefficient between food habits and satisfaction is 0.44, which is significantly larger than that of the schools with permanent or full-time nutritionists or nutrition teachers of 0.19. This result implies that factors like food habits, which are relatively private, can have a stronger influence on satisfaction when the position of the school nutritionist or nutrition teacher is more instable.

Next, we compare two PLS models between schools with modernized facilities and without modernized facilities. The path coefficients between food habits and satisfaction with school foodservices are significantly different ($p < 0.1$), which is 0.16 in schools with modernized facilities, and 0.33 in schools without them. Characteristics of individual students are more effective factors in foodservices with non-modernized facilities than modernized ones.

Furthermore, we compare two PLS models between the male student group and female student group. The direct effects of food habits on satisfaction with school foodservices of female students are significantly higher than those of male students ($p < 0.1$). The path coefficient between food habits and

satisfaction is 0.14 in the male student group and 0.31 in the female student group, so food habits is a more crucial factor to define the satisfaction level with school foodservices in the case of female students. Otherwise, there is no significant difference in PLS models between schools that serve in-class meals and schools that serve cafeteria meals, nor between urban located schools and rural located schools.

The examination of the moderating effect of student gender and school characteristics on the relation between perceived food quality and satisfaction is provided in the following Table 8. In schools with temporary nutritionists or nutrition teachers, the path coefficient between perceived food quality and satisfaction is 0.37, which is significantly less than that of the schools with permanent or full-time nutritionists or nutrition teachers of 0.56. The path coefficients are significantly different, which is 0.38 in schools with modernized facilities, and 0.45 in schools without them. And the path coefficients at schools that serve in-class and theses that serve cafeteria meals are significantly different. But gender and location are not moderating effects between perceived food quality and satisfaction.

CONCLUSION

This study not only examines the perceived food quality of food and student individual food habits

Table 8. Moderating effect between perceived food quality and satisfaction

Hypothesis	Groups	Path coefficient	t-test	Acceptance	
H4-6	Location	Rural	0.49	0.25	Reject
		Urban	0.54		
H4-7	Nutrition teacher's position	Permanent	0.56	1.61*	Accept
		Temporary	0.37		
H4-8	Renovating kitchen	Renovating	0.58	1.35*	Accept
		Not yet	0.45		
H4-9	Food distributing place	Cafeteria	0.43	1.57*	Accept
		Classroom	0.64		
H4-10	Gender	Male	0.55	0.38	Reject
		Female	0.51		

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

as influence factors on satisfaction level with school foodservices, but also measures the moderating effects of group-level characteristics such as gender, location of the school, position of nutritionist or nutrition teacher, condition of foodservices, and meal distribution place. Utilizing Structural Equation Model analysis, we found that the positive perceived food quality and student food habits have positive influences on the satisfaction with school foodservices that contain emotional responses. Furthermore, good food habits have a positive influence on perceived food quality, which means the overall attitude toward the foodservices. This result proves that student food habits have a significant relation with the satisfaction with school foodservices, which is similar to the result of Kim(2012)'s study which shows that better food habits can improve overall satisfaction with everyday dietary life. Furthermore, this study's findings coincide with those of Yon & Hyun(2008)'s study in terms of proving that measurements such as eating balanced foods, eating vegetables, eating breakfast and dinner regularly, and not leaving leftovers can be viable actors for measuring food habits.

This study is valid for making some suggestions on improvement methods for student satisfaction with school foodservices. Recent reports suggest that student tastes are changing alongside the increased consumption of processed products and meat products, which makes them feel that school

foodservices are not tasty enough(Go et al 2014). This study showed that Oliver's Expectancy Disconfirmation Theory explains the relationship between food habit and school lunch satisfaction. The goodness of food habit determines school lunch satisfaction. It is necessary that school provides lunch menu by considering student's food habit. But the problem is that the influence in the educational aspect of school foodservices can be lost when schools focus on serving meals, which fulfill students' demand for flavor. Therefore, finding out how to improve students' satisfaction by controlling food habits will be helpful to strengthen the educational aspect of environmentally friendly foodservices. In addition, it is necessary to afford some stimulus to awaken the consciousness of students for the purpose of improvement in food habits, and automatic response systems toward given situations. For example, education on the right food habits or experience-based education such as cooking or visiting agricultural areas can be helpful in increasing the overall level of satisfaction with school foodservices.

From the results of the study, we find that the location of the school does not have any significant influence on the relation between food habits and satisfaction. It is different from Yoon et al(2005)'s study which shows significant differences in satisfaction between urban and rural students. The reason for this contrast is thought to be that every sample school of this study is located in the same capital

area, Gyeonggi-do, so that it cannot include proper effects of regional characteristics.

Moreover, we find out that the influence of student food habits on satisfaction is lower in schools with full-time or permanent nutritionists or nutrition teachers than in schools with part-time or temporary ones. In food service industry, full-time employee makes a more commitment to their job than part-time one (Kim 2006). The job involvement of service provider is one of most important factors which influence customer's satisfaction. Yang (2013)'s study makes the same implications, proving that the job stability of nutritionists and nutrition teachers matters significantly. Furthermore, the impact of food habits on satisfaction is lower in schools with modernized foodservice facilities than in schools without them. This result shows that the quality of food is a more significant factor than individual food habits in cases of the superior quality of the facility. Lastly, the satisfaction of female students is affected more by individual food habits than that of male students. It implies that female upper-grade elementary school students have more decision tendency based on their private food habits.

The implications of this study can be to give priority to offering dietary education to schools without renovating kitchen or schools with part-time or temporary nutritionists or nutrition teachers in the dimension of the Provincial Office of Education, and to develop customized education methods only for female students. Additionally, the efficiency of education can be improved by departmentalizing schools and students with proper standards and setting the education priority of each. Finally, it is appropriate to see the concept of satisfaction as a multi-dimensional concept including emotional features. It is more important now because school foodservices have been turned into free services, which makes it impossible to assess school foodservices in terms of input cost and outcome productivity.

There are two main limitations in this study. One is that the used samples are limited to schools located only in Gyeonggi-do province, and the other is that it was not possible to examine the precedence factors. The future direction of this study is to expand the sample source to non-capital areas, including urban and rural, to make it possible to

achieve higher external validity, and to identify variables that have influences on food habits and the perception of food to increase consumers' perception of school foodservice and develop relevant educational sources.

ACKNOWLEDGMENTS

This research was carried out with the support of "Cooperative Research Program for Agriculture Science & Technology Development (Project No. PJ-0113902015)" Rural Development Administration, Republic of Korea.

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Received: 25 August, 2015

Revised: 30 September, 2015

Accepted: 20 October, 2015

경기도 초등학교 급식에서 식습관과 지각된 식품품질이 만족에 미치는 영향

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국문초록

도교육청은 학교급식을 서비스로 간주하고 소비자의 만족을 높이기 위해 노력하고 있다. 이 연구는 올리버의 기대 불일치 이론을 바탕으로 학생의 식습관과 지각된 품질이 학교 급식 만족에 영향을 주는지 검토하고자 한다. 우리는 학생의 성별과 학교 조건의 조절효과를 테스트하였다. 학교의 조건으로 검토한 것은 소재지가 농촌 또는 도시인지, 영양교사가 정규직 또는 비정규직인지, 조리 시설 현대화 사업을 실시 또는 미실시하였는지, 배식장소가 교실 또는 식당인지 등이다. 2014년 9월 경기도 소재 8개 학교 초등학교 6학년을 대상으로 설문지 실시되어 설문지 240부가 회수되었다. 불성실한 설문지를 제외하고, 전체 208부를 대상으로 PLS와 붓트랩 t -테스트를 하였다. 분석결과로 식습관이 만족에 직접적으로 영향을 주었으며($p < 0.01$), 학교급식 서비스의 지각된 품질이 부분적으로 둘 간의 관계를 매개하였다. 여학생보다 남학생의 경우에 식습관이 만족에 더 적은 영향을 주었다($p < 0.1$). 영양교사가 정규직인 경우가 비정규직인 경우보다 학생의 식습관이 만족에 더 작은 영향을 주었다($p < 0.05$). 조리 시설 현대화 사업을 시행한 학교의 경우가 식습관이 만족에 더 작은 영향을 주었다($p < 0.1$). 학교 소재지와 배식 장소는 식습관과 만족 사이에 유의한 조절 효과를 나타내지 않았다. 이러한 결과는 소비자의 태도를 형성하는 식습관과 지각된 품질이 상호작용하여 만족에 영향을 미친다는 것을 의미한다. 따라서 학교급식의 교육적 효과를 극대화하기 위해서는 식습관 개선하는 프로그램이 동반될 필요가 있다. 정책적으로 조리 시설 현대화 사업을 미실시한 학교와 비정규직 영양교사가 있는 학교에 우선적으로 교육 프로그램이 제공된다면 교육 효과가 높아질 것이다.

주제어: 학교 급식, 만족, 식습관, 품질, 조리시설, 영양교사