

Food Sold in and Around the School: Is it Worth the Students' Pocket money?

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Abstract

The study aimed to identify students' and teachers' perceptions about food items sold in and around schools during school hours/recess in terms of quality and quantity of food, services rendered to students, and prices of food items. Data were gathered through the use of two different questionnaires for students and teachers and separate semi-structured focus group discussions with female and male teachers thus giving a qualitative touch to the quantitative data. The sample comprised of students and teachers of five government high/higher secondary schools for boys and girls each. 30 students and ten teachers were randomly selected from these schools. It was found that girl students got comparatively less pocket money than boy students. Girls bought food items more often than boys. Also savings of girl students were less than boy students on average. The students considered that dishes and spoons etc were not properly washed. Girls were found to be at a disadvantage as compared to boys as they were not allowed out of school during recess. The study recommended cleanliness of food items and utensils; and availability of clean drinking water in schools. The study also recommended quality control committee at school level.

Key words: Food in schools, student canteen, food environment, food services

Introduction

Schools are in a good position to endorse healthy food related behaviors in students and help ensure appropriate food intake. (O'Toole, Anderson, Miller & Guthrie, 2007). Food items sold in and around the school during school hours/recess play a special role in school life because it provides refreshment and fulfills energy requirements of students. It has an impact on curricular and co-curricular activities and well-being of students and the school community. Food can be dangerous if not properly handled, prepared and stored.

It is essential that food is properly handled and prepared to keep it fit for health. Food should be served in clean dishes. The food required to be kept hot should be hot, and the food required to be served cool should be kept cool. As many government schools in Pakistan have no canteen facilities for the students. Various people (Private Hawkers) sell a variety of food items in and around schools during school hours and recess. However, there is a need to look into such practices for its effective and for efficient functioning and services to students and the school community. Students need to be educated to look into the nutritional value of such foods and develop healthy choices. Students are investing a part of their pocket money into buying food items in and around schools. They need to be taught to see what they are getting in return. There is need for schools to provide training and guidance to develop proper eating habits in students. Improvement in the foods sold in and around the schools can contribute to develop healthy food choices in students. It is also essential for school managers to keep an eye on what is being sold to students. Strategies can be developed for improving the quality and service of various types of foods available in and around the schools during schools hours.

Review of Literature

Zhao, Lau & Lam (2002) developed a simulation model of the service processes and waiting line behavior at the student canteen. By varying the number of servers and calculating the total cost per customer served, the performance of the system was optimized in view of the service cost and the cost of waiting in term of its impact on future purchases. Bell & Swinburn (2003) determined differences in the contribution of foods and beverages to energy consumed in and out of school in Australia. They also compared consumption patterns between school canteen users and non-canteen users. Sample included 1656 children aged 5–15 years. It was found that 37% of total energy intake was consumed at school. Fast foods and soft drinks contributed 11% and 3% of the total energy intake; however these foods were mostly consumed out of school. Fruit intake was low in school. 14% of children purchased food from the canteen and they obtained more energy from desserts, fast food, snacks, milk and confectionary than non-canteen users. It was concluded that energy-dense foods and beverages were over-represented in the Australian schools. They recommended that snack bars, biscuits, and fruit/cordial drinks brought from home and fast food, packaged snacks, and confectionary sold at canteens should be replaced with fruit and water to help prevent obesity and to improve nutrition in schools. Carter & Swinburn (2004) identified and measured the obesogenic elements of the school environment and the canteen sales of energy-dense foods and drinks in New Zealand primary schools.

The responses from primary schools (n = 200, response rate 61%) were analyzed using a questionnaire for assessing schools' nutritious environment. About 16% of schools had purpose-built canteen facilities and over half ran a food service for profit. Only about 17% of schools had a food policy, although 91% of those rated the policy as effective. Commonly available foods were pies, juice and sausage rolls. Filled rolls were the most expensive item and fruit the least expensive. About 60% of respondents said that nutrition was a priority for the school. 50% respondents felt there was management support for healthy food choices and 39% agreed that the food service offered mainly nutritious food. Less healthy choices dominated food sales by more than 2:1. It was found that the food environment was not conducive to healthy food choices for students. It was recommended that programs to improve school food through policies, availability, prices and school culture are urgently needed. Lee & Loke (2005) examined health-promoting behaviors and psychosocial well-being of university students in Hong Kong using convenience sample (n = 247) of students. The Chinese version of the Health Promotion Lifestyle Profile II was used as a questionnaire. Relatively few university students had a sense of health responsibility, engaged in any form of physical activity, or exercised regularly. Less than half ate fruits and vegetables daily.

There was no significant difference in students' scores on the health responsibility, nutritional habits, spiritual growth, interpersonal relations, or stress-management subscales of the HPLP-II by gender, but male students scored better than female students on the physical exercise subscale. Kwan, Petersen, Pine & Borutta (2005) examined the global need for promoting oral health through schools. The WHO Global School Health Initiative and the potential for setting up oral health programs in schools using the health-promoting school framework were discussed. They highlighted the challenges faced in promoting oral health in schools in the developed and developing countries. They emphasized the importance of using a validated framework and appropriate methodologies for the evaluation of school oral health projects. Hesketh, Waters, Green, Salmon & Williams (2005) elicited child and parent views as regards to social and environmental barriers to healthy eating, physical activity and child obesity prevention programs, acceptable foci, and appropriate modes of delivery.

Children in grade 2 (aged 7–8 years) and grade 5 (aged 10–11 years) participated in semi-structured focus groups of three to six children. Focus groups with parent groups were also conducted. 119 children and 17 parents participated. Nine themes including information and awareness, contradiction between knowledge and behavior, local environment, lifestyle balance, barriers to a healthy lifestyle, contradictory messages, myths, roles of the school and family, and timing and content of prevention strategies for childhood obesity emerged. It was concluded that awareness of food healthiness was high however perceptions of the healthiness of some sitting activities (e.g. reading) were uncertain. The contradictions in messages children receive about diet and physical activity were considered as a barrier to healthy lifestyle. Promotion of healthy food and activity choices is core to prevention programs for childhood obesity. Maddock, Warren & Worsley (2005) examined the characteristics of food services in Victorian government primary and secondary schools using a questionnaire. Respondents included principals, canteen managers and home economics teachers from 150 primary and 208 secondary schools. It was found that most schools provided food services at lunchtime and morning recess but one-third provided food before school. Over 40% outsourced their food services, one-third utilized volunteer parents, while only a few involved students in canteen operations. Secondary school respondents were more dissatisfied with the nutritional quality of food.

They expressed more interest in additional services than primary school respondents. It was concluded that most schools wanted to improve the nutritional quality of their food services, especially through school food policies. Korwanich, Malikaew, Sheiham, Kaewgun & Srisilapanan (2006) assessed the extent and nature of healthy eating policies and practices for preschool children in public schools before initiating an intervention to promote healthier eating in 47 public primary schools in Phrea province, Thailand. A questionnaire was used to interview principals and preschool teachers. Observed information about healthy eating policies in the schools were also collected during interviews. The healthy eating policies implemented by schools were categorized into four groups: 1) fully in place, 2) partially in place, 3) currently under development, and 4) not in place. The issues implemented by “fully in place” healthy eating policy schools included: offering sugarless milk to preschool children; providing students enough time to eat lunch in clean, safe and pleasant environment; scheduling enough time for students to wash their hands before meals and to eat lunch in clean, safe and pleasant environment; and establishing links with nutritional counselor. All schools had a policy to help students learn specific nutrition-related skills. Schools encouraged and involved staff, children family members and community in supporting and reinforcing healthy eating policy. Although majority of schools were concerned about healthy policy, many policies were not fully implemented. There was a need for a practical model for schools to implement healthy eating practices. Finch, Sutherland, Harrison & Collins (2006) conducted a cross-sectional study in the Hunter region of New South Wales. 16 Government primary schools were randomly selected and 5,206 students in years 1-6 were invited to participate in the study.

Objectives of the study were to identify sources of food eaten during the school day, the types of foods and frequency of purchases from the canteen and association with SES and weight status in primary school-aged children. It was found that the majority of children brought their recess snack and lunch from home. Still, majority of children used the school canteen and commonly purchased less healthy foods and high-sugar drinks. The study confirmed the relevance of school canteen for affecting children's eating habits.

Utter, Schaaf, Ni & Scragg (2007) examined the demographic characteristics and food choices of school canteen/tuckshop users. 3275 students (age 5 to 14) completed a food frequency questionnaire and food habits interview. 58% students bought some or most of their food and drink from school canteen. 74% of the older students bought most or some of their food eaten at school from the school canteen. They frequently consumed high-sugar/high-fat foods. Younger students were significantly more likely to drink soft drinks more than five times a week, eat meat pies/ sausage rolls more than three times a week, and have sweets/chocolate/ candies more than four times a week. Older students were significantly less likely to eat the recommended two servings of fruit and three servings of vegetables daily. They were more likely to frequently consume pies and sausage rolls and sweets/chocolate/candies. School canteens should offer more healthy food options, make healthier foods cheaper and more desirable, and limit the availability of less healthy foods. O’Toole, Anderson, Miller & Guthrie (2007) examined the characteristics of both school nutrition services and the foods and beverages sold outside of the school meals program in the United States using computer-assisted telephone interviews or self-administered mail questionnaires. Results showed that few states required schools to restrict the availability of deep-fried foods, to prohibit the sale of low nutrient density foods, or to make healthful beverages available.

While many schools sold healthful foods and beverages, many also sold items high in fat, sodium, and added sugars. There was need to improve the nutrition services programs in many schools. Opportunities to eat and drink at school should be used to encourage greater daily consumption of fruits, vegetables, whole grains, and nonfat or low-fat dairy products. Maniquiz (2009) assessed the school canteen administration and operation managed by the Teacher's Cooperative at Maysan National High School in Valenzuela. It was found that the staff of the school canteen did not properly utilize the canteen facilities. Although canteen sold appropriate amount of foods as per the needs of students, served food was not always fresh, newly cooked or prepared. It was concluded that there was a need to provide proper training for canteen staff so that they would improve their skills on the proper food handling, preparation, and selection; customer satisfaction and quality management of the canteen. The food was found to be repetitive and limited lacking the nutritional value needed by the students. Students found canteen food quite expensive. It was recommended that the Heads of the Teachers' Cooperative supervise and monitor the activities of their canteen staff emphasizing efficiency and effectively. Food items must be affordable yet nutritious so that the students would be satisfied. A variety of food geared towards the total well being of the clients should be provided. Canteen staff should be given some kind of incentives for motivation and encouragement.

Gabriel, Vasconcelos, Andrade & Schmitz (2009) assessed the functioning of school canteens in eight key municipalities of Santa Catarina, Brazil using. They investigated if the foods sold were in accordance with the Law. A questionnaire was completed by the principals and those responsible for the canteens. Out of 345 schools only 56 schools (45%) had a canteen. The presence of a canteen was significantly higher in private sector. 68.2% of the canteens did not sell soft drinks, fried snacks, industrialized popcorn, hard candies, lollipops chewing gum, and industrialized packaged snacks. The items least likely to comply with the Law were juices and the availability of fruits everyday. The notice board on diet was present only in about 7% of the canteens. Many canteens offered food items of low dietary value. It was recommended that the inspection of canteens was necessary. Training for the canteen's proprietors might guarantee their economic viability and may transform them into places of health promotion. Mikolajczyk, Ansari & Maxwell (2009) conducted a cross-sectional survey among first-year students in Germany (N = 696), Poland (N = 489) and Bulgaria (N = 654) using self-administered questionnaires. They examined whether poor nutritional habits were associated with stress and depressive symptoms and whether the relationships differed by country and gender. It was found that food consumption, depressive symptoms, and perceived stress differed by country and gender. Depressive symptoms were linked with less frequent consumption of fruits/vegetables and meat. There were consistent associations between unhealthy food consumption and depressive symptoms and perceived stress among female students but not among male students. The results suggested that efforts to reduce depressive symptoms and stress among female students might lead to the use of healthier foods and/or vice-versa.

Dubuisson, Lioret, Dufour, Calamassi-Tran, Volatier, Lafay & Turck (2010) investigated socio-economic and demographic variations in school lunch participation of French children aged 3-17 years. They used data from the second French national cross-sectional food consumption survey (INCA2), performed in 2006-2007. Information on weekly school canteen attendance was obtained through a self-reported questionnaire, and information about demographic and socio-economic variables through a face-to-face questionnaire. They performed subject Analysis on 1413 school children who completed the school canteen attendance questions. Results showed that about 66 % of school children had school lunch at least once a week and it was positively correlated with age. School canteen attendance was positively associated with the educational level of the parent. In pre-school and elementary-school children, enrolment at the school canteen was also higher when the parent worked, or in single-parent families. In secondary-school children, school lunch participation decreased with children living in more densely populated areas and increased with the level of the household's living standards. It was concluded that school canteen attendance was positively associated with children's socio-economic background.

Objectives of the Study

The study aimed to identify students' and teachers' perceptions about food items sold in and around schools during school hours/recess in terms of quality and quantity of food, services rendered to students, and prices of food items. The study attempted to answer questions about whether there were any differences with respect to food items sold in around the boys and girls schools. They study also focused on viable suggestions for improvement.

Methodology of the Study

Descriptive method was used and data were gathered through the use of questionnaires and semi-structured focus group discussions. The discussions gave a qualitative touch to the quantitative data. The data were collected in November 2010. The study was carried out in district Charsadda of the Khyber Pakhtun khwa province of Pakistan. The stratified random sample comprised of a total of ten government high/higher secondary schools (five boys schools and five girls schools). 30 students and ten teachers were randomly selected from these schools. Total sample consisted of 150 boy students, 150 girl students, 50 male teachers, and 50 female teachers. Out of these 142 boys (response rate= 95%), 135 girls (response rate= 90%), 47 male teachers (response rate= 94%), and 45 female teachers (response rate= 90%) returned the questionnaires. The researcher administered two different questionnaires to the students, and the school teachers. Questionnaires were developed from the review of literature. The questionnaires were pilot tested and improved with the help of concerned teachers and experts. Data were collected with the help of school staff and colleagues. Data were analyzed by using features in Microsoft Excel XP 2002 and SPSS 13.0 for windows. Findings from the survey were discussed with male and female teachers separately in two semi-structured focus groups. Eight male and five female teachers participated in the discussions. Discussions were held separately so that the participants feel comfortable speaking in the group. The discussions provided further information on the issue and helped reach viable solutions.

Data Analysis & Results

Insert table (1) about here

The data in the table 1 showed that girls students got comparatively less pocket money than boys students on average. Girl students bought food items more often than boy students. Also savings of girl students were less than boy students on average. Focus group participants were of the opinion that in many cases girls were not treated equally with boys. Furthermore girls were given less pocket money because they had relatively less transport fare. Even the number of schools for girls was less than those for boys. Girls were, therefore, at a disadvantage as compared to boys.

Insert table (2) about here

The data in the table 2 showed that the pocket money not spent on buying food items was spent on other expenses. 32% of the boy students spent most of their savings on buying stationary items as compared to 19% of the girl students. Similarly 10% of the boys spent it on transport fare as compared to 6% of the girl students. Only 7% boys and 5% girls were able to add the amount to their savings.

Insert table (3) about here

Data showed that boys had relatively more facilities in their school relating to hand wash, and efficient management that saved time and effort of students to get food as compared to girl students. 72% girls washed hands before eating anything in schools as compared to 85% of boys. Only 13% girls' students were satisfied with the quantity of plates and spoons available as compared 56% of boys. 65% girls and 56% boys considered that dishes and spoons etc were not properly washed. Only 56% girls considered that food items were charged at affordable prices as compared to 61% boys. It showed that girls were charged relatively higher rates for food items as compared to boy students. 82% boys considered that food items available in and around their schools were fresher and newly cooked as compared to 53% of girls. 63% girls were dissatisfied with the quality of food items as compared to 42% of boys showing that boys were relatively more satisfied with the food available in and around school than girl students. The reason behind it, as brought out in the discussions, was the different social setting of the boys and girls schools. Boys were generally allowed to go out of schools in recess to get food items from local hawkers. In many cases these local hawkers selling various food items were allowed into the school premises during recess so that boys could get food items as desired. Girls, on the other hand, were not allowed out of school during recess. In most cases hawkers were not allowed into the schools and girls had to depend on the internal arrangement to get food items. Focus group discussion emphasized the need to address the issue. A solution as presented by female teachers was to make girls students bring their own food from home that was more suitable than what was sold at schools.

Insert table (4) about here

Table showed the suggestion from students for the improvement. 32% boys and 29% girls suggested cleanliness of food items and utensils. 27% girls suggested the prices of food items to be reasonable.

Good quality fresh food was a problem of girl students as 27 % suggested for it as compared to 10 % of boy students. 18% boys and 23% girls suggested availability of clean drinking water. Girl students are more choice oriented in food selection. The discussions with teachers highlighted that girls were charged at a higher rates as compared to boy students because of the different schools settings as pointed out previously. Girls had to depend on the internal arrangement which were charging them at increased rates. Girls had limited choice of food items and, therefore, suggested for increased choices. Boys, on the other hand, had a choice to choose from many different types of available items so it was not their problem at all.

Insert table (5) about here

Table showed that majority of both female and male teachers agreed that there was no school policy about food sold in and around school during school hours/recess. Both female and male teachers purchased food items sold in and around schools at times. Male teachers were more concerned about what students ate in and around the schools and its nutritional value as compared to female teachers. Majority of both female and male teachers did not ask students about what they ate in school hours/ recess. While majority of female and male teachers provided nutritional education to students and emphasized positive aspects of healthy eating; 72% male teachers helped students learn specific nutrition related skills as compared to 35% female teachers. Majority of female and male teachers reported that students had the time and facility to wash hands. 91% male teachers were satisfied with the variety of food items as compared to 32% of female teachers but both were satisfied with its quality only to some extent. Although teachers reported that students had the time and facility to wash hands and reported concern about what students ate in and around the schools; they did not ask students about what they ate in school hours/ recess. Furthermore, 28% girls and 15% boys reported that they did not wash hands before eating anything in schools. The issue was highlighted in the discussions with teachers. Teachers agreed that more needed to be done to address the issue and emphasized on practical activities and active concern for students' welfare.

Insert table (6) about here

Table contained the suggestions of teachers for improvement. Both Male and Female teachers suggest for improved quality of food items. 27% female teachers and 34% male teachers suggested that there should be proper policy about food items sold in and around schools and wanted a school committee for the purpose. Teachers suggested that food items should be available at reasonable prices. 24% female teachers and 32% male teachers suggested educating students about nutritional value of foods. Similarly 20% female teachers and 13% male teachers suggested that student should bring lunch from home as that is more nutritious, clean, fresh and healthy as compared to what is sold in and around schools during school hours/recess. The suggestion for proper policy about food items was welcomed by participants in the FGDs. They suggested that it should be in written form. It can be developed at the school or department level and implemented in letter and spirit in the interest of students and the school community. A school committee should be established comprising of teachers, students, people selling food items in and around schools, parents and community members. These measures could improve the quality and affordability of food items sold in and around the schools during school hours/recess.

Results

It was found that girls students got comparatively less pocket money than boys. Girls bought food items more often than boy students. Also savings of girl students were less than boy students on average. Girls were found to be at a disadvantage as compared to boys. The pocket money not spent on buying food items was spent mostly on buying stationary items and on transport fare. Only 7% boys and 5% girls were able to add the amount to their savings. It was found that boys had relatively more facilities in their school to get food items as compared to girl students. Girls were charged relatively higher rates for food items as compared to boy students. Majority of students considered that dishes and spoons etc were not properly washed. Similarly boys were relatively more satisfied with the food available in and around school than girl students. One of the reasons behind it was the different social setting of the boys and girls schools. Boys were generally allowed to go out of schools in recess to get food items from local hawkers. In many cases these local hawkers were allowed into schools during recess so that boys could get food items as desired. Girls, on the other hand, were not allowed out of school during recess. In most cases hawkers were not allowed into the schools and girls had to depend on the internal arrangement to get food items. Girls had limited choice of food items and, therefore, suggested for increased choices.

Majority of both female and male teachers agreed that there was no school policy about food sold in and around school during school hours/recess. Male teachers were more concerned about what students ate in and around the schools and its nutritional value providing nutritional education to students and emphasized positive aspects of healthy eating as compared to female teachers. 91% male teachers were satisfied with the variety of food items as compared to 32% of female teachers but both were not much satisfied with its quality. Cleanliness of food items and utensils and availability of clean drinking water was suggested. More was needed to be done to address the issue and emphasized on practical activities and active concern for students' welfare. Both Male and Female suggested that there should be proper policy about food items sold in and around schools and wanted a school committee to be established comprising of teachers, students, people selling food items in and around schools, and parents and community members. 20% female teachers and 13% male teachers suggested that student should bring lunch from home.

Discussion

Schools can play an important role in promoting healthy habits. Health promotion messages can be delivered in schools enabling students to develop lifelong attitudes and skills. "Poor oral health can have a detrimental effect on children's quality of life, their performance at school and their success in later life" (Kwan, Petersen, Pine, and Borutta, 2005). Research relating to eating behaviors of students is needed for developing healthy life style of students. These researches should account for the personal and environmental factors in and around the schools and the available resources of the school, students, and community. The present study was one of a kind in the area of Khyber pakhtunkhwa and presented a bird eye view of the situation and the problems that students faced. Much work needs to be done to address the issue. More work is needed on the gender differences, on the choice of food items of girl and boys students, the food value of these items, its impact on students' health, and the social influences on them. There is a need for teachers, educationists, and other stake holders to advocate for the use of healthier foods in and around schools.

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Table 1 Students' pocket money

	Girls		Boys	
	Mean	SD	Mean	SD
Pocket money	Rs.14.87	14.77	Rs. 17.3	15.81
Amount spent on buying food items in and around school	Rs. 8.65	7.54	Rs. 10.28	8.73
Amount saved from pocket money	Rs. 3.03	9.10	Rs. 6.44	7.84

Table 2 Use of the amount saved from pocket money

	Girls	Boys
Buy educational guides and stationary	25 (19%)	46 (32%)
Transport fare	8 (6%)	14 (10%)
Add to savings	7 (5%)	10 (7%)
Give to class fellows in need	1 (2%)	2 (4%)
Story books	1 (2%)	-----
Give to younger brothers/friends	1 (2%)	1 (2%)

Table 3 Students' assessment of food items sold in and around the school

	Girls		Boys	
	Yes	No	Yes	No
Washing hands before eating in and around school during school hours/ recess	97 72%	38 28%	121 85%	21 15%
Proper seating arrangement for eating food	46 34%	89 66%	52 37%	90 63%
Efficient arrangement to save time and effort	30 22%	105 78%	77 54%	65 46%
Plates and spoons etc. are in sufficient quantity	17 13%	118 87%	79 56%	63 44%
Plates and spoons etc. are in good condition	17 13%	118 87%	41 29%	101 71%
Proper washing of dishes and spoons etc	47 35%	88 65%	62 44%	80 56%
Food items are sold at affordable prices	75 56%	60 44%	55 39%	87 61%
Foods items are fresh, newly cooked or prepared	71 53%	64 47%	117 82%	25 18%
Food items are of sufficient quantity	101 75%	34 25%	110 77%	32 23%
Food items are according to the lessons taught at school	69 51%	66 49%	79 56%	63 44%
Satisfaction with the quality of the food items	50 37%	85 63%	83 58%	59 42%

Table 4 Students' suggestions for improvement

	Girls	Boys
Cleanliness of food items and utensils	39 (29%)	46 (32%)
Prices should be reasonable	37 (27%)	8 (6%)
Good quality/fresh food	37 (27%)	14 (10%)
Clean drinking water	31 (23%)	25 (18%)
Proper seating arrangement	15 (11%)	25 (18%)
Food available should be according to students choice	15 (11%)	-----

Table 5 Teachers' opinion about food items sold in and around the schools (3=Yes, 2=to some extent, 1=No)

	Female teachers			Male teachers		
	3	2	1	3	2	1
School policy about food sold in and around school during school hours/recess	4 9%	6 13%	35 78%	1 2%	5 11%	41 87%
Purchasing food items in and around the school	8 18%	31 68%	6 13%	27 57%	10 21%	10 21%
Concern about what students eat in school hours/ recess	16 36%	17 38%	12 27%	37 79%	8 17%	2 4%
Concern about nutritional value of students' diet	8 18%	17 38%	20 44%	41 87%	6 13%	0
Asking students about what they eat in school hours/ recess	15 33%	4 9%	26 58%	13 28%	4 8%	30 64%
Helping students learn specific nutrition related skills	16 35%	12 27%	17 38%	34 72%	7 15%	6 13%
Providing nutrition education to students	28 62%	0	17 38%	33 70%	2 4%	12 26%
Emphasizing positive aspects of healthy eating	35 78%	10 22%	0	39 83%	4 9%	4 9%
Guidelines for healthy eating habits to students	35 78%	4 9%	6 13%	41 87%	1 2%	5 11%
Students are given facilities to wash hands before eating	34 75%	3 7%	8 18%	38 81%	7 15%	2 4%
Students are given time to wash hands before eating	35 78%	2 5%	8 18%	35 74%	9 19%	3 6%
satisfaction with the variety of food items	15 33%	10 22%	20 44%	43 91%	4 9%	0
Satisfaction with the quality of food items	1 2%	32 71%	12 27%	5 11%	27 57%	15 32%

Table 6 Teachers' suggestions for improvement

	Female teachers	Male teachers
Improved quality of food items	15 (33%)	18 (38%)
Proper policy about such food items being sold in and around schools	12 (27%)	16 (34%)
School committee should be established	12 (27%)	14 (30%)
Reasonable prices	12 (27%)	13 (28%)
Education students about nutritional value of foods	11 (24%)	15 (32%)
Students should bring healthy and fresh lunch from home	9 (20%)	6 (13%)