

The sale of snacks and beverages in public schools: analysis of a state regulatory

Comercialização de lanches e bebidas em escolas públicas: análise de uma regulamentação estadual

José Divino Lopes Filho¹
Larissa Loures Mendes²

¹ Universidade Federal de Minas Gerais, Escola de Enfermagem, Departamento de Nutrição. Belo Horizonte-MG, Brasil.

² Universidade Federal de Juiz de Fora, Instituto de Ciências Biológicas, Departamento de Nutrição. Juiz de Fora-MG, Brasil.

Correspondence

José Divino Lopes Filho
Universidade Federal de Minas Gerais, Escola de Enfermagem/Departamento de Nutrição.
Av. Alfredo Balena, 190, sala 316, CEP 30130-100, Belo Horizonte-MG, Brasil.
E-mail: divinolopes@gmail.com.

Abstract

Encouraging an adequate and healthy food in schools is a common practice in many countries and has been increasingly regulated in the municipalities and states. However, the laws created do not seem to guarantee that the quality of all the food available in these institutions is appropriate. In the state of Minas Gerais, the Law No. 18,372 of 2009 regulates the sale of snacks and beverages of low nutritional value in state schools. The objective was to verify compliance with regulatory trade for snacks and drinks in public schools in the city of Belo Horizonte. A total of 156 schools which correspond to 87% of the total were evaluated. For data collection, a standardized questionnaire developed by the Coordinator of the School Feeding Program of Minas Gerais was used. The data of the infrastructure of schools and the food sold inside there were collected. A database was developed from which it could investigate the compliance with the law, comparing what was marketed with the restrictions established by law. It was verified that 78 schools (50.6%) were selling foods with the excess of Trans fat, saturated fat, sodium, sugars and calories. The frequencies found of the selling of food prohibited by law were: salty baked goods, 82.4%; artificial beverages, soft drinks and artificial juices, 54.8%; embedded derivate, 42.7%; bacon, straw potato, ice cream and greasy sauces, 34.2%. The regulation of the food sales in schools can be considered an important step in promoting healthy eating at school, but the constant supervision is necessary for compliance with legislation.

Keywords: School feeding. School health. Food habits. Products commerce.

Resumo

O incentivo à alimentação adequada e saudável nas escolas é prática comum em vários países e tem sido cada vez mais regulamentado em municípios e estados brasileiros. Entretanto, as leis criadas parecem não garantir impedir que a qualidade de todos os alimentos disponíveis nessas instituições seja adequada. No Estado de Minas Gerais, a Lei nº 18.372, de 2009, regulamenta a venda de lanches e bebidas de baixo valor nutricional nas escolas estaduais. O objetivo foi verificar o cumprimento da regulamentação do comércio de lanches e bebidas em escolas públicas estaduais do município de Belo Horizonte. Foram avaliadas 156 escolas que correspondem a 87% do total. Para a coleta dos dados, foi utilizado questionário padronizado desenvolvido pela Coordenadora do Programa de Alimentação Escolar de Minas Gerais. Foram coletados dados sobre a infraestrutura das escolas e alimentos comercializados em seu interior. Foi elaborado um banco de dados a partir do qual se investigou o cumprimento da lei, por meio da comparação do que foi comercializado com as restrições previstas em lei. Verificou-se que em 78 escolas (50,6%) havia comercialização de alimentos com excesso de gordura trans, saturada, sódio, açúcares e calorias. As frequências encontradas de venda de alimentos proibidos pela lei foram as seguintes: salgados assados, 82,4%; bebidas artificiais, refrigerantes e sucos artificiais, 54,8%; embutidos, 42,7%; bacon, batata palha, sorvetes e molhos gordurosos, 34,2%. A regulamentação da venda de alimentos nas escolas pode ser considerada etapa importante na promoção da alimentação saudável dos escolares, mas faz-se necessária a constante fiscalização para que haja o cumprimento da legislação.

Palavras-chave: Alimentação escolar. Saúde escolar. Hábitos alimentares. Comercialização de Produtos.

Introduction

School health promotion actions have been implemented in several countries, in recognition of the strategic position of this environment in society.¹⁻⁴ Among the health promotion actions, encouragement of adequate and healthy eating occupies a prominent place because it is in this environment that children and adolescents remain for a significant period of time. In this sense, it is critical to realize the importance that food services available in school environments should take on, especially with regard to supply or commercialization of adequate and healthy foods and meals.^{5,6}

However, studies have shown that foods available in schools, especially those offered in commercial snack bars, are normally low in nutritional and high energy content. In addition, it is emphasized that the youth dietary preferences are not always on foods considered healthier. In this context, unhealthy food actions contribute to appearance and aggravation of Chronic Noncommunicable Diseases (CNCD), which corroborates an increasing prevalence of obesity among schoolchildren.⁷⁻⁹

Data from the Brazilian government *Pesquisa Nacional de Saúde do Escolar* (National School-based Student Health Survey, PeNSE, in the Portuguese abbreviation) conducted in 2012 have shown that students' consumption of food considered unhealthy and rich in sugars and fats has increased. Consumption of sweets (desserts, candies, chocolates, chewing gum, bonbons or lollipops) in five days or more in the week was reported by 41.3% of schoolchildren, together with consumption of crackers (35.1%) and soft drinks (33.2%). These data reaffirm the findings observed in the 2009 PeNSE about the regular and high pattern of consumption of unhealthy foods by a significant portion of Brazilian students.¹⁰

PeNSE information, because it reflects practices and legislation guiding availability and consumption of food in school environments, is relevant for planning Food and Nutrition Education (FNE) interventions. Conclusions from several studies have evaluated the positive effects of such actions involving school environments.¹¹⁻¹⁴

It should be emphasized that the state and municipal experiences of food marketing regulation in schools respond to the guidelines of the Brazilian government *Programa Nacional de Alimentação Escolar* (National School Lunch Program, PNAE, in the Portuguese abbreviation), which in turn is one of the main instruments for promoting the Brazilian government *Direito Humano à Alimentação Adequada* (Human Right to Adequate Food, DHAA, in the Portuguese abbreviation).¹⁵⁻¹⁷

It is also worth noting that the commercialization of high energy dense food by canteens represents an obstacle to FNE actions. The presence of such establishments in schools can directly interfere with students' adherence to PNAE actions, since meals distributed by the program are developed based on nutritional parameters and recommendations for promoting healthy eating.⁶

Given this context, the Brazilian state of Minas Gerais (MG) approved and sanctioned Law 18372 on September 4, 2009, which regulates the sale of snacks and beverages within state educational system schools. According to it,

sale is prohibited in state school sites for snacks and beverages containing processed or unprocessed products or preparations containing high amounts of calories, saturated fat, trans fat, free sugar, salt, alcoholic content and low nutritional content, such as: fried food, puff pastry snacks and desserts, cookies, sweets in general, caloric sauces, artificial drinks, processed snacks and popcorn, sausages, sandwiches and pizza rich in fat and calories.¹⁸

The creation of documents by state and municipal managers regulating the operation of school canteens can be considered an important step towards transforming schools into a facilitating environment for adequate food choices. Together with this regulation, it is important to highlight the importance of FNE actions involving students and their families in order to consolidate healthy eating habits.⁶

Knowing the importance of adequate and healthy food for growth and development of children and adolescents, the present study has verified if DHAA regulation is being carried out in schools of the state public system in the metropolitan region of Brazilian city Belo Horizonte, based on compliance with Law 18372/2009, which restricts marketing unhealthy foods in school cafeterias and canteens. The objective was to verify compliance with the regulation of snack and beverage trade in state public schools in the metropolitan region of Belo Horizonte.

Methods

This is a cross-sectional study carried out in all state schools in the Metropolitan Region of Belo Horizonte (RMBH, in the Portuguese abbreviation) registered in 2012 in the State Department of Education (SEE, in the Portuguese abbreviation) of Minas Gerais, corresponding to a total of 156 schools. Of these, 78 schools (50%) marketed food products in canteens and all were selected to make up the sample of the present study. The data used in the research were made available by the Brazilian government *Diretoria de Suprimento Escolar* (Department of School Supply) of SEE-MG and collected during one year in each school by nutritionists from the technical supervision of the School Food Program.

The study investigated the types of snacks marketed in these schools from data collected by the Department of School Supply of the State Department of Education of Minas Gerais (SEE-MG).

To collect data, the SEE-MG uses a questionnaire that addresses issues related to school infrastructure and food provided in school environments. Among the questions are: number of students enrolled, data on the acquisition and control of foodstuffs, information on menus, inventory control, human resources and food and beverage marketing.

In the present study, issues related to food trade within school environments were analyzed in order to verify if the schools complied with Law 18372 of 2009, which prohibits and limits the trade of certain types of foods and preparations. Foods evaluated by SEE-MG are processed and highly processed foods, described in Table 1.

Descriptive analysis of the data was performed through frequency distribution with the aid of Microsoft spreadsheet Excel® 14.4.7.

Table 1. Categories of processed and highly processed foods marketed in schools.

CATEGORIES	FOODS
Fried	Potatoes, cookies, fried food rolls, Brazilian chicken meat dough, stuffed rolls, skewers, Brazilian crust pie with assorted fillings pastel, kibbe and fried foods in general
Baked snacks / puff pastry snacks	Snacks and candies
Cookies	Sandwich cookies, coated cookies, wafer type cookies, crackers and other high-fat and caloric cookies
Desserts	Candies, lozenges, lollipops, chocolates and bonbons, macaron, gelatin-based Brazilian dessert <i>maria-mole</i> , ice cream, syrup-coated Popsicles, freeze pop, cotton candy, chewing gums and sweets in general
Caloric sauces	Catchup, mayonnaise, mustard, mayonnaise-based sauces and others with high fat and calories
Artificial drinks	Common, light and zero soda, artificial refreshments, alcoholic beverages, energy drinks and other similar beverages
Other ready-to-eat foods	Industrialized snack foods, sandwiches and pizzas containing ingredients such as sausage, bacon, shoestring fries, mayonnaise and greasy and caloric sauces, fried eggs, fatty cheeses and other ingredients and sausages rich in fat and calories
Other foods	Foods that have low nutritional value but have not previously been described.

Results and Discussion

Of the 78 schools marketing food products in canteens, in 90.9% (n = 70) of the management would be carried out by the school management itself. As for the commercialization of processed and highly processed foods prohibited by Law 18372/2009, there was a high frequency of availability for commercialization of these foods in canteens, including baked snacks, which were the most available ones (82.4%), followed by artificial beverages, soft drinks and artificial juices (54.8%). Cured foods such as sausages (42.7%) were present in preparations, besides other products such as bacon and shoestring fries. It was also verified that fatty sauces (34.2%) were also available for consumption in canteens.

Foods that had the lowest percentage of availability for marketing in canteens – although restricted by legislation – were fried foods (9.3%), sandwiches (10.7%), sweets (25.3%) and industrialized snack foods (17.3%) (Table 2).

Table 2. Food and beverages marketed by school canteens of the state public school system of RMBH, 2012.

Food	Yes		No		Total
	n	%	n	%	
Baked snacks	61	82.4	13	17.6	74
Artificial drinks	40	54.8	33	45.2	73
Sausages	32	42.7	43	57.3	75
Other products*	26	34.2	50	65.8	76
Candies	19	25.3	56	74.7	75
Snacks	13	17.3	62	82.7	75
Sandwiches	8	10.7	67	89.3	75
Industrialized snack foods	13	17.3	62	82.7	75
Fried foods	7	9.3	68	90.7	75

Note: * Sale of other products: Food with ingredients such as bacon, shoestring fries and greasy sauces.

Several studies indicate that a significant proportion of students in public schools consume food marketed by such snack bars. It is pointed out that the presence of two types of school food services, provision of school meals and food marketing by canteens, may generate difficulties for students to select in a more appropriate way the foods that should be part of their diets in the school period.⁶

It was possible to identify in this study the sale to schools of products prohibited by state legislation in force, such as: artificial beverages, cured sausages, bacon, shoestring fries and greasy sauces. It was found that baked snacks presented the highest percentage of sales (82.4%), constituting a modality of products released for marketing in canteens (with the exception of puff pastry). These products are increasingly used in school canteens, which can be a positive aspect due to the reduced availability of fried foods (available in only 9.3% of schools). However, it is valid to consider this result, since many snacks, even baked ones, may represent a health risk because they contain high levels of trans and saturated fat, as is the case of puff pastry – a type of pastry prohibited by the legislation. Nonetheless, one of the limitations of the present study was the non-detailing of the preparations ingredients.

With regard to artificial beverages, such as common, light and zero soft drinks and processed juices, it was found that this type of product had the second highest sales percentage (54.8%). It should be noted that both products (baked snacks and artificial beverages) were the ones that presented sale percentage higher than 50%. A study carried out by Gabriel et al.¹⁹ in public and private schools canteens in the Brazilian city of Florianópolis has also evaluated the foods and beverages marketed after the sanctioning of the municipal law regulating the operation of school canteens in the municipality. This law prohibits the marketing of alcoholic beverages, candies, lollipops and chewing gums, soft drinks and artificial juices, industrialized food snacks, fried snacks and industrialized popcorn. In the study, the high percentage of sales of baked snacks (98.2%) and artificial juices (60.7%) and the sale of sausages and other products based on bacon, shoestring fries and greasy sauces also had a high frequency, of 42.7% and 34.2%, respectively.

In view of the present study results, it is understood that Law 18372/2009 is not yet fully applied in the RMBH. It is noteworthy that in some schools processed and highly processed foods are accessible to students, which implies noncompliance with the law. In addition, the presence of these establishments in schools may directly interfere with the students' adherence to the Brazilian government *Programa Nacional de Alimentação Escolar* (National School Lunch Program, PNAE, in the Portuguese abbreviation).

It is important to consider that schools should be seen as some site for promoting adequate and healthy diets and an ideal place for FNE.¹⁹⁻²¹ The importance of FNE programs involving students, family members, managers and educators is emphasized so that they do not allow the

marketing of these products prohibited by law and also for adherence to such healthy eating strategies in school environments.

According to the very Law 18372, inspection to verify compliance must be carried out by the state and municipality Health Surveillance services. In addition, the resolution regulating the application of this law also assigns the education units principals and advisors the responsibility to supervise its compliance. As for the Health Surveillance agencies, they have incorporated the law as a reference for the development of a protocol of actions of the area and in some municipalities the activity of inspection does take place. Violation of the law may represent, in the case of outsourced canteens, a breach of the contract for use of sites and services. In the case of noncompliance carried out by public servants, administrative penalties included in the Brazilian Statute of Public Servants are provided. Despite such legal instruments for measuring compliance with laws, the present study has not identified data revealing school numbers and results of their supervision.^{22,23}

Conclusion

The creation of documents by state and municipal managers regulating the operation of school canteens can be considered an important step towards transforming schools into a facilitating environment for adequate food choices. However, it is necessary to constantly monitor compliance with legislation in all schools, considering that the current legislation assigns power of supervision not only to health surveillance services, but also to the teaching unit head. Absence of information about supervision activities leaves behind an important instrument of social control of Law 18372, resulting in ignorance of what is practiced in schools.

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