

Original Research



Health and nutrition related claims of non-alcoholic beverage labels in supermarkets: their compliance with Sri Lanka Food Labelling and Advertising Regulations

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Abstract

Introduction: The main legislation governing food labelling in Sri Lanka is the Food Act which is implemented by health authorities. Food labels provide information to help consumers make healthier and safe food choices.

Objectives: To assess the compliance of health and nutrition claims of labels of non-alcoholic beverages with food labelling regulation

Methods: A descriptive cross-sectional study was carried out in all 18 supermarkets in the Kandy Municipal Council Area. Non-alcoholic beverages were assessed. A judgmentally validated pre-tested checklist containing provisions of the labelling regulation was used as the study instrument. Data collection was done by four trained data collectors.

Results: Of the 214 beverages assessed, 5.1% (n=11) did not have the common name in two languages. Claims or pictures to the effect that the beverage is recommended by medical practitioners or a professional association was present in 8.1% (n=19). Of the 56 milk products and health drinks, 8.9% (n=5) made claims that dietary fats benefit heart patients. Claim of food being an aid for slimming or weight reduction was found in 14% (n=9) of the 64 milk products, health drinks and green tea surveyed. Of the 36 beverages which made special claims, 30 (83%) did not have declarations that the natural food items also have the same characteristic.

Conclusions: Labels of considerable proportions of beverages contravene the provisions of the food labelling regulation, indicating the importance of proper implementation of the regulation.

Key words: food Legislation, food label, nutrition claims, beverages

Introduction

External factors such as labelling regulations, pre-packaged food labelling information and pre-packaged food product attributes influence consumers' decision making in purchasing a product. Food Act No.26 of 1980, subsequent amendments and regulations made under the Food Act are the main legislations governing food safety and hygiene in Sri Lanka (1-3). Labelling and advertising are currently governed by Food Labelling and Advertising Regulation 2005 (4). The provisions of these enactments stipulate that food items have to be properly labelled before being sold in the market. These regulations apply to food locally produced as well as imported food. The Ministry of Health is responsible for implementing the food legislation to ensure that food sold in Sri Lanka is safe and wholesome. The Director General of Health Services is the Chief Food Authority.

At present, more and more pre-packed food items are entering the market. The food items may vary from locally manufactured food items to imported ones. The growing consumer demand necessitates that adequate information about the food product is provided and that it is communicated through product labels. The food industry faces a challenge in providing required information abiding to the regulations on labelling of the country. In addition to providing information, the food label plays a dual role of attracting the consumer to the food product and convincing the consumer to purchase a certain food item.

Food labels provide information to help consumers make healthier and safe food choices. Furthermore, these labels could potentially provide false misleading information to the consumer which in turn could bring about harmful effects to the consumers amounting to a criminal offence under the Sri Lankan Law (1). The aim of this study was to assess the compliance of health and nutrition claims of labels of non-alcoholic beverages with food labelling regulations in supermarkets in the Kandy Municipal Council Area. Kandy consists of a population of 1.2 million. The Kandy city was selected since there are many supermarkets and many consumers patronage the supermarkets.

Methods

All supermarkets within the Kandy Municipal Council limits were included in the study sample of

this descriptive cross-sectional study. There was a total of eighteen supermarkets. Non-alcoholic beverages were considered as the study unit and all non-alcoholic beverages were included in the sample. Once the data collection was completed, the product brand was compared, and duplicated brands were removed. Altogether 214 beverages were taken for analysis.

A pre-tested checklist containing requirements of food labelling and advertising regulation was used as the study instrument. Information on the label was divided as that given in the 'main panel' and 'other panels'. Main panel means the part of a label that is most likely to be displayed, presented, shown or examined under customary conditions of display for retail sale, and shall not be less than 20% of the total surface area excluding the bottom of the package or container. Other panels include panels other than the main panel (4). Information in the main and other panels was considered as mandatory information. The main panel should contain the common name of the contents at least in any two of the three languages in bold face type, brand or trade name if any, in any one or more of the three languages in a manner that shall not mislead any person, the net contents of the package or container expressed by the international symbols 'g' or 'kg' in the case of solids, 'ml' or 'l' in the case of liquids, and if packaged in liquid medium, the net drained weight expressed as 'g' or 'kg'. The following declarations can be either in the main panel or any other panel in any one or more of the three languages; any permitted names of food additives or INS number as prescribed by regulations; instructions for storage or use; the name and address of the manufacturer and packer or distributor in Sri Lanka; the batch number or code number or a decipherable code marking; the date of expiry; the date of manufacture; the name of places where food is imported in bulk and repacked; the date of manufacture and the date of repacking; a complete list of ingredients used in such food by their common names in descending order of their proportions; the country of origin in case of imported food; and any other declarations stipulated under the regulation (4).

The above regulation was reviewed by investigators, and the potential items to be included in the study tool were listed. For the purpose of data collection, these items were categorized under four domains: main panel, other panel, nutrition information

and the specific requirements/ restriction on labelling. This list was sent to a panel of experts and its face-validity, content-validity and consensual-validity were ensured (5). After the adjustments which were done based on the expert panel, the checklist consisted of four main sections. Section 1: Main panel – common name, brand name, net content, requirements of the size of letters, etc., Section 2: Other panel – permitted food additives name/ INS No, instructions for storage, name and address of the manufacture, packager/distributor in Sri Lanka, batch no/code, date of expiry, list of ingredients in common names, in descending order, etc., Section 3: Nutrition information – energy values, amount of nutrients, and Section 4: Specific requirements/ restrictions on labelling.

The printed information in the entire package or container was considered for this study. Medical officer of health (MOH) is an authorized officer under the Food Act. Data collection was done by four trained data collectors who have work experience as MOH. Hence, the data collectors have experience in assessing food labels for compliance to the provisions of the Food Acts and Food Labelling and Advertising Regulation. The components of the data collection tool were discussed during a training session which

included pretesting in similar supermarkets in the Kegalle District.

Results

Of the 214 beverages assessed, 68 (31.7%) complied to all the provisions and 5.1% (n=11) did not have the common name in two languages. All the labels contained the name and address of the manufacturer/distributor. Date of expiry was not present in 2.8% (n=6). List of ingredients in common names in prescribed format was available only in 64% (n=137) of the labels (Table 1).

Table 2 depicts the characteristics related to the compliance of specific requirements on health claims. Claims or pictures to the effect that the beverage is recommended by medical practitioners or a professional association was present in 8.1% (n=19). Of the 56 milk products and health drinks, 8.9% (n=5) made claims that dietary fats benefit heart patients. Claim of food being an aid for slimming or weight reduction was found in 14% (n=9) of the 64 milk products, health drinks and green tea surveyed. Of the 36 beverages which made special claims, 30 (83%) did not have declarations that the natural food item also has the same characteristic.

Table 1. Compliance of the main and other panel

Item	No. (%)	
	Yes	No
Common name in two languages	203 (94.9)	11 (5.1)
Common name not less than 1/3 size of the brand name letters	193 (90.2)	21 (9.8)
If food additives present name / INS No	115 (62.2)	70 (37.8)
Name and address of the manufacture, packager/ distributor	214 (100.0)	0 (0.0)
Batch No./ Code No.	214 (100.0)	0 (0.0)
Date of expiry	208 (97.2)	6 (2.8)
Date of manufacture /expiry in correct format	203 (94.9)	11 (5.1)
List of ingredients in common names in prescribed format	137 (64.0)	77 (36.0)

Compliance of specific requirements on nutritional claims is summarized in Table 3. All 23 beverages claiming for enriched food did so when beverage did not contain “added nutrients in addition to what are naturally contained in the beverage”. Claims of a fortification when a nutrient was a natural constituent of the beverage were seen in 69.2% (n=18) of the

beverages claiming fortification. 82.9% (n=29) of beverages which made claim as an energy provider made so when required energy was not provided by the beverage. Low fat and fat free claims were made when having fat levels above the stipulated values by 73.3% (n=11) and 75% (n=8) of beverages who made such claims respectively.

Table 2. Compliance of specific requirements on health claims

Item	No. (%)	
	Yes	No
Claims or pictures to the effect that the food is recommended by medical practitioner, professional association	195 (91.1)	19 (8.9)
Claims made that dietary fats are protective against heart disease or benefits heart patients ¹	51 (91.1)	5 (8.9)
Claims of food being an aid for slimming, weight control or weight reduction ²	55 (86.0)	9 (14.0)
Beverage making special claims have declarations that the natural food item also has the same characteristic ³	30 (83.0)	6 (17.0)

¹milk products and health drinks; ²milk products, health drinks and green tea; ³beverages making special claims

Table 3. Compliance of specific requirements on nutritional claims

Item	No. (%)	
	Yes	No
Claims on enriched food made only when beverage contain added nutrients in addition to what is naturally contained in the beverage ¹	0 (0.0)	23 (100.0)
Claim for fortified food is not made unless any nutrient added is not a natural constituent of the beverage ²	8 (30.8)	18 (69.2)
Claim for carbohydrates, fats, vitamins or minerals made when recommended daily consumption provides 5% of daily requirement stipulated under Schedule IV of the regulation ³	9 (25.0)	27 (75.0)
Claim for food as an energy provider is not made unless that food provides 300Kcal or more per day and a declaration of energy content in K.cal per 100g of food	6 (17.1)	29 (82.9)
Claim for low in fat is made only when that food contains not more than 3 g per 100g solids or 1.5 g per 100 ml liquids	4 (26.7)	11 (73.3)
Claim for free in fat is made only when that food contains not more than 0.5 g per 100g solids or 100 ml liquids	2 (25.0)	6 (75.0)

¹beverage claiming enriched food; ²beverages claiming fortification; ³beverages claiming carbohydrates, fats, vitamins or minerals;

⁴ beverages claiming as an energy provider; ⁵beverages claiming low fat content; ⁶beverages claiming fat free

Discussion

This is the first documented study done on non-alcoholic beverages in supermarkets of a major municipality where a large variety of beverages locally manufactured as well as imported that is sold in Sri Lanka are available. The findings of this study reveal the current status of the implementation of labelling regulation with regard to non-alcoholic beverages, which would be useful for health authorities to take measures to rectify the identified gaps in the implementation. Food label acts as a medium that carries information about the product. It provides the consumer of the characteristics of the packaged food item (6). Information provided in the label and the level of education of the consumer have a positive effect on selection of right food and protect the consumer from health risks associated with food products (7).

The present study revealed that all labels contained the name and address of the manufacturer/ distributor. Further a majority of labels complied with the key general requirements of the Food Labelling Regulation in the main information panel. A label should at least contain information such as product name, contact details of the manufacturer or distributor, information on nutrition and the net content (8-9).

Nutritional content such as sugar, salt, fat, and carbohydrates in a label will give the consumer a chance to keep a track on different nutrition contents of the product. Health claims in labels can be used by the consumers to identify risk or beneficial factors to one's health (10). The information in the label helps the consumer to make informed decisions when purchasing a food product. This is a key reason to have a nutrition information panel in a label. The consumer can decide on a balanced healthy diet based on the information provided in the nutritional panel.

Information on the label is used by the consumer in choosing the food item. The current society is health conscious than ever before. With the lifestyle changes such as sedentary lifestyle, people are concerned about the calorie intake. They are well-informed on risk factors of common non-communicable diseases, such as hypertension, diabetes mellitus, cancers, etc. Certain food containing high salt, sugar and processed foods can have a direct impact on non-communicable diseases. Due to this awareness, the consumer would

demand information on nutritional content of the food item to be consumed. Hence, the label plays the role of the key informant to the consumer. An Australian study revealed that the age and health consciousness had an impact on reading of the label (11).

The present study sheds light on the value of timely review of the food legislations in Sri Lanka. The Sri Lankan Food Act, No. 26 of 1980 and the regulations thereunder, provide the legal requirements for food labelling in Sri Lanka. Nutritional labelling was not compulsory until 2003. This indirectly resulted in the local food producers having to compete with imported food products which contained nutritional labels providing nutritional information to the consumer (12). In 2003, a new Regulation (Food Labelling and Advertising Regulations) was enacted making compulsory inclusion of nutrition content in the label. This regulation was amended in 2005 further strengthening the labelling requirements of food products.

A review on public perception on using labels by Philip et al. (13) reported that 50% of UK citizens read food labels. The size of the label, size of fonts, the language used in the label have an impact on consumers using the labels. Certain labels provide a large amount of information than what a consumer can process and is considered as 'information overload'. An Australian study revealed that labels of half of the products contained nutrition related claims. Of the nutrition claims, 12.9% violated the labelling regulations. This was especially seen in voluntary code of practice (14).

This study was confined to the supermarkets and did not include the local trade establishments which may contain beverages which the supermarkets do not accept for sale due to quality/standard issues. These beverages may not be labelled conforming to the labelling regulation. This is a limitation of this study. To minimize any bias resulting from this, the findings were not generalized to all trade establishments, but only to the supermarkets in Kandy Municipal Council Area.

Conclusions & Recommendations

The findings of present study revealed that a majority of health and nutritional claims violated the existing legislative provisions on food labelling in

relation to many aspects. The consumers are potentially misled with inaccurate information provided through the labels. There were serious violations where the consumer was misled indicating that the beverage was recommended by medical practitioners and has dietary benefits for illnesses and other health benefits. A majority of special claims did not declare that the natural food also has the same characteristics. The relevant officials responsible for the implementation of the labelling regulation should take serious note of these violations and should take remedial steps to ensure correct information is given to the consumer through food labels.

Public Health Implications

Existing legislative provisions on food labelling were violated by a majority of health and nutritional claims; and the consumers are potentially misled with inaccurate information provided through the labels. The Ministry of Health being the main authority on food safety, should take steps to ensure correct information is given to the consumer through food labels.

Author Declarations

Competing interests: The authors declare that they have no conflicts of interests in this study.

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Author contributions: All the authors were involved in the conceptualization of the study. MA, SW, BM, PK coordinated data collection, performed the statistical analysis, interpreted the data and were involved in the drafting and editing of the manuscript. DF, RS, YF, CD were involved in data collection and drafting of the manuscript. All authors read and approved the final manuscript.

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