

CONSUMER ATTITUDES, NUTRITION KNOWLEDGE, AND USE OF NUTRITION INFORMATION ON THE LABELS OF PACKAGED DRINKS AMONG ADOLESCENTS IN SURAKARTA, INDONESIA

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Abstract

Health problem have been increasing as a result of unhealthy food consumption pattern. The increasing preference for sweet taste, advanced technology and reasonably cheap prices of packaged drinks are the contributing factors for this increased consumption. More than half of Indonesian people consume ready-to-drink beverages in package. Consumers may not be able to assess the nutritional quality of food and drink directly. Therefore, it is important for manufacturers to inform the nutritional quality of their products through an article. Nutritional values on the label information are believed to help consumers choose the right products according to their need. This research studied the behavior of adolescents in Surakarta when consuming beverages other than bottled water, milk and herbs, as well as the frequency of consumption, respondents' behavior, nutritional knowledge related to ready-to-drink beverages, as well as the use of nutritional value information to select their drinks based on gender and frequency of consumption. The result showed that youths in Surakarta had become consumers of packaged beverages. Most of them consumed irregularly. Only 2 of 169 respondents had good knowledge and unfortunately, for the quality of nutrition, youths in Surakarta did not pay much attention to the provided nutrition information. Light users paid more attention to ingredients and nutrition information better than the other groups, and female respondents cared more on the nutrition information than male.

Keywords: consumer behavior, nutrition knowledge, nutrition information, beverages, adolescent

Presenting Author's biography



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BACKGROUND

Diseases associated with the consumption of foods such as heart disease, type II diabetes and cancer are diseases that have spread widely and have a significant impact on human health. One trigger for the disease is change in the consumption pattern of food and beverages, namely the increasing consumption of soft drinks and sugary fruit drinks [1]. The consumption of bottled soft drinks and carbonated drinks increase the risk of obesity [2], heart disease and tooth decay [3]. The drink contains high energy due to high sugar levels that are in liquid form that did not give a sense of satiety as solid foods [2].

In Indonesia, the number of overweight people continues to increase from year to year. From the 2007 data, the prevalence of overweight in Indonesia reached 19.1% for those aged 15 years old and above [4]. While in 2010, the number of overweight and obesity in the adult population over the age of 18 years old was 21.7% (27.7 million people), while in Central Java it reached 18.9% [5]. The research results also showed that 14% of adult men and 22.7% women in Central Java were overweight [5].

Indonesia packaged beverages market in 2013 was estimated to grow 10% -11%, which was IDR 326.7 trillion to IDR 329.6 trillion [6] from IDR 288.8 to 294.3 trillion in 2012 [7]. The consumption of packaged drinks in Indonesia is still dominated by fresh water in containers (84.1%), followed by ready-to-drink tea (8.9%), carbonated beverages (3.5%), and others (3.5%) [7]. Nowadays, in the world, soft drink beverage sector has exceeded hot beverage sector. The consumption and the popularity of soft drinks are increasing rapidly due to the sweet taste as customers' wishes and their relatively cheap price [8].

Nutritional value is one criterion that is important for the consumers. However, consumers may not be able to assess the nutritional quality of food and drink directly. Therefore, it is important for manufacturers to inform the nutritional quality of their products through an article. Nutritional values on the label information are believed to help consumers choose the right products according to their needs. However, even though consumers see nutritional value information on the label, it does not mean that they will use the information as a consideration when consuming food [9]. The aspects of taste, price, and the fat content, energy, sugar and salt are information that attracts a lot of attention from consumers [9].

There have not been many studies that address the behavior of adolescents in consuming packaged beverage in Indonesia. Surakarta city had been selected because Surakarta is the second largest city in Central Java, and there is an assumption that the prevalence of obesity is higher in urban areas than in rural areas. This research would study the behavior of adolescents in consuming beverages, nutritional knowledge related to beverages, as well as the use of nutritional value information to select their drinks.

RESEARCH METHOD

This research was observational with cross-sectional approach. This research was conducted in Surakarta from February to March 2015. The respondents were adolescent aged 18-21 year old. The adolescents were divided into four groups, namely the pre-teens who were 10-12 years old, early adolescence who were 12-15 years old, mid-adolescence who were 15-18 years old, and late adolescence who were 18-21 years old [10], The subjects of this study were adolescents aged 18-21 year old. People at this age physically have considered entering adulthood and are considered to have the maturity to consider many things before doing something. The data required for this research included personal data of the respondents, frequency of consumption and usage pattern of beverage packaging, knowledge of such beverage, as well as the use of nutritional value information and their height and

weight. In this research, the types of drinks were grouped into soda, diet soda, tea or coffee, juice and energy drink.

This research applied the method of cross-sectional study and was conducted on adolescence respondents in Surakarta with a survey. The respondents were obtained through snow-balling methods because of cost limitations. The data consumption of packaged beverage, consumer behavior, knowledge of beverage, as well as the utilization of nutritional value information had been obtained through such methods.

The data were obtained through a questionnaire composed of several groups of questions. The questions were given with the total of 23 questions on behavior, knowledge of nutrition and the use of nutritional value information as well as personal data of the respondents. The written questionnaire was given to the respondents and subsequently filled by the respondents. The respondents were then grouped based on gender and type of user (light, moderate and heavy users) based on consumption frequency.

Before statistical analysis, the assumption of normality was checked using Kolmogorov-Smirnov test. If normality was assumed ($p > 0.05$), independent samples t-test and one-way anova were selected. If the data were not normally distributed, non-parametric tests (Kruskal-Wallis and Mann-Whitney) were used.

RESULTS AND DISCUSSION

Respondents Characteristics

A total of 250 questionnaires were distributed and 195 returned. Only a total number of 169 respondents participated by filling out the questionnaire properly, while 26 respondents did not complete filling on the characteristics of the respondent; hence, the obtained data could not be used. Therefore, the final samples obtained were 169 samples with 115 women and 54 men aged 18 to 21 years old with an average age of 19.57 ± 1.111 year. The age range is the age range of the onset of independence and autonomy [11]. Many young people at that age begin to dare to leave their parents' house for boarding house or renting a house; therefore, they are more independent in deciding their food [11].

Most respondents had high school education or higher education with almost all (98.8%) stated that they were still attending school or university for their daily activities. Family conditions were subjectively grouped in a very prosperous, prosperous, mediocre, poor and very poor. Whereas, the place they live was grouped into living with parents, rooming with others and living at home, but not with parents. The complete data spread could be seen on Tab.1

Tab 1. Respondents characteristics (n=169)

Characteristics	Group	Number and percentage	Light users (n=68)	Moderate users (n=90)	Heavy users (n=11)
Gender	Female	115 (68.0%)	43	64	8
	Male	54 (32.0%)	25	26	3
Age	16	1 (0.6%)	1	0	0
	17	5 (3.0%)	2	3	0
	18	24 (14.2%)	12	12	0
	19	44 (26.0%)	17	25	2
	20	57 (33.7%)	19	33	5

	21	38	(22.5%)	17	17	4
Education	Graduated from elementary school	1	(0.6%)	0	1	0
	Graduated from junior high school	11	(6.5%)	8	3	0
	Graduated from high school	15	(8.9%)	5	9	1
	University students	139	(82.2%)	54	75	10
	Graduated from university	3	(1.8%)	1	2	0
Daily activity	Student	167	(98.8%)	68	88	11
	Unemployment	2	(1.2%)	0	2	0
Family	Very prosperous	31	(18.3%)	13	17	1
	Prosperous	71	(42.0%)	28	37	6
	Usual family	65	(38.5%)	26	35	4
	Poor	1	(0.6%)	0	1	0
	Very poor	1	(0.6%)	1	0	0
Place to live	At home with parents	63	(37.3%)	27	30	6
	Boarding house	100	(59.2%)	38	57	5
	At home but not with parents	6	(3.6%)	3	3	0

The respondents were then asked to state whether they frequently or rarely consume packaged beverage by mentioning how often they drank a variety of packaged beverage. The frequency data were then quantified and aggregated to determine whether they were included as light (68 people), moderate (90) or heavy consumers (11 persons). Light consumers were those who consumed 0-5 packages per week, while heavy consumers consumed 10 packages or more per week.

Consumption frequency

In this research, the types of drinks were grouped into soda, diet soda, tea or coffee, juice and energy drink. A significant difference was found in the frequency of purchase of all kinds of drinks. For the category of users, it was generally seen that the heavy users bought beverage products relatively more compared to other groups. For all types of packaged drinks, light users most rarely consumed those drinks while heavy users consumed most often. The female respondents drank juice more whereas male consumed energy drink more than their counterparts. In the previous study [12], it was stated that young females liked diet soft drinks as they contained less energy and males liked sugary drinks because they were attracted to the sweet taste. On the other hand, in this study, we did not find any significant differences in diet and sugary soft drinks between boys and girls.

Despite the increase in consumption of packaged drinks in many countries [6] [7] [8] [13], the general result of this study showed that the consumption of each type of drink was low with the mean value of 2.45 (less than or once a week). For soda, diet soda, tea/coffee, juice and energy drink, the mean value of frequency were 2.16 (less than once per week), 1.47 (never or less than once a week), 3.20 (once a week), 3.23 (once a week) and 1.52 (never or less than once a week), respectively. However, heavy users consumed all type of beverages twice a week or more, which could be seen from Table 2.

Tab 2. Purchasing frequency of packaged beverages

	Purchasing frequency of packaged drinks				
	Soda	Diet soda	Tea/coffee	Juice	Energy drink
	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD
Type of consumers **					
Light	1.56 ± 0.56 ^a	1.19 ± 0.46 ^a	1.71 ± 0.69 ^a	2.38 ± 0.98 ^a	1.53 ± 0.82 ^a
Moderate	2.34 ± 0.95 ^b	1.41 ± 0.65 ^a	2.18 ± 1.53 ^b	2.66 ± 1.37 ^b	1.57 ± 1.31 ^a
Heavy	4.64 ± 1.75 ^c	3.73 ± 2.24 ^b	4.36 ± 1.86 ^b	4.00 ± 1.95 ^c	4.08 ± 2.09 ^b
Gender ***					
Female	2.21±1.18	1.55±1.12	3.25±1.53 ^b	3.31±1.75 ^b	1.22±1.49 ^a
Male	2.11±1.13	1.31±0.58	3.19±1.38 ^a	2.94±1.79 ^a	2.19±1.48 ^b

*1: never consume such type of drink

2: less than once a week

3: once a week

4: twice a week

5: 3-4 times a week

6: almost or everyday

7: more than once a day

**based on Kruskal-Wallis test result

***based on Mann-Whitney test result

^{a b c} : different superscript letters denote significant differences across the type of consumers or gender for each purchasing frequency (p < 0.05)

Consumers used several places to purchase packaged drinks in Surakarta for example supermarkets, minimarkets, food kiosks and cafeteria or restaurant. The general result showed that consumers bought from supermarket with the mean value of 2.32 (less than once a week), minimarkets 2.69 (once a week), food kiosks 2.66 (once a week), and cafe/restaurant 2.80 (once a week).

Regarding the location for purchasing packaged beverages, there were some significant differences obtained at the place of purchase in food kiosks, and a cafeteria/restaurant in terms of user category. In both places, there was a noticeable difference. Heavy users used both locations to buy more than the others. On purchases at two other places, supermarkets and minimarkets, it turned out there were no significant differences between categories of users.

Based on gender, the significant difference between them was only found on the purchase in a cafeteria or restaurant. On purchases in restaurants or canteens, it was found that female buyers had the tendency to buy packaged drinks more often than men.

Tab 3. The place to purchase beverages

	The place to buy beverages			
	Supermarkets	Minimarkets	Food kiosks	Cafe/restaurant
	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD
Type of consumers **				
Light	2.15 ± 0.95	2.50 ± 0.99	2.50 ± 1.02 ^a	2.32 ± 0.97 ^a
Moderate	2.27 ± 0.78	2.69 ± 0.92	2.88 ± 1.12 ^{ab}	3.45 ± 1.04 ^b
Heavy	2.45 ± 0.69	3.09 ± 0.94	3.45 ± 1.04 ^b	2.82 ± 0.98 ^{ab}

Gender ***

Female	2.39 ± 0.99	2.74 ± 0.99	2.57 ± 1.04	2.93 ± 0.95 ^b
Male	2.16 ± 0.76	2.59 ± 0.94	2.85 ± 1.12	2.53 ± 0.97 ^a

- *1: never
- 2: rarely
- 3: sometimes
- 4: often
- 5: always

**based on Kruskal-Wallis test result

***based on Mann-Whitney test result

^{a b} : different superscript letters denote significant differences across the type of consumers or gender for each place (p < 0.05)

The function of the use of packaged beverages

Furthermore, the consumers were asked to choose, when they consumed packaged beverages, such beverage served as what. There were four options that could be selected, fresh water substitution, milk substitution, tea or coffee substitution or replacement of daily snacks.

Significant differences were obtained at three categories. Heavy users stated that they relatively use packaged beverages as the substitute for water more often than medium and light users, as well as the function as substitution for milk and tea and coffee substitutes.

In the category of gender, there was no significant difference between male and female as it could be seen on table 4.

Tab 4. The function of beverage

	Substitution of			
	Fresh water	Milk	Tea/coffee	Snack
	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD
Type of consumers **				
Light	2.82±1.49 ^a	2.41±0.94 ^a	2.42±0.94 ^a	2.53±1.13
Moderate	3.11±1.38 ^a	2.71±1.02 ^a	2.73±0.93 ^{ab}	2.68±1.03
Heavy	4.00±1.27 ^b	3.27±0.91 ^b	3.18±0.87 ^b	3.18±0.98
Gender ***				
Female	3.09±1.43	2.59±0.98	2.48±1.01	2.72±1.14
Male	3.03±1.44	2.64±1.01	2.71±0.92	2.62±1.04

- *1: never
- 2: rarely
- 3: sometimes
- 4: often
- 5: always

**based on Kruskal-Wallis test result

***based on Mann-Whitney test result

^{a b} : different superscript letters denote significant differences across the type of consumers or gender for each function (p < 0.05)

The respondents were further asked, when or on what occasion they consumed the packaged beverage. Similar to the question of the function, the only significant difference was found in the user category. For the category of use when eating at home, relaxing at home, relaxing outdoors, at work or school, when welcoming guests, significant differences were found and heavy users scored highest. In the category of visiting a friend, and as an invitation to heavy users also had greater tendency than mild and moderate users in consuming such beverages. One interesting thing was the fact that all users, mild, moderate and heavy, stated that during a trip was when they most often use packaged drinks even though no significant differences existed.

Tab 5. When to use packaged drinks

	Occasion								
	Having a meal at food kiosks	Having a meal at home	Relaxing at home	Relaxing outdoor	Working or at school	Welcoming guests	Visiting relatives	Attending invitation	During a trip
	Mean*± SD	Mean*± SD	Mean*± SD	Mean*± SD	Mean*± SD	Mean*± SD	Mean*± SD	Mean*± SD	Mean*± SD
Type of consumers **									
Light	2.35±0.96	1.56±0.70 ^a	1.76±0.76 ^a	2.46±0.87 ^a	2.35±0.99 ^a	1.97±0.86 ^a	2.10±0.88 ^a	2.24±1.02 ^a	3.10±1.05
Moderate	2.59±0.98	2.07±0.96 ^b	2.32±0.94 ^b	2.75±0.83 ^{ab}	2.68±0.90 ^{ab}	2.31±0.91 ^b	2.57±0.85 ^{ab}	2.59±0.87 ^{ab}	3.28±0.92
Heavy	2.91±1.22	3.18±0.60 ^b	3.73±0.65 ^b	3.09±0.70 ^b	3.18±0.98 ^b	3.36±0.92 ^b	2.91±0.83 ^b	2.82±0.87 ^b	3.36±1.03
Gender ***									
Female	2.69±1.01	1.94±0.83	2.17±0.86	2.76±0.85	2.76±0.97	2.00±0.89	2.30±0.90	2.46±1.02	3.26±0.95
Male	2.43±0.98	1.83±0.90	2.10±0.93	2.61±0.86	2.50±0.95	2.26±0.90	2.45±0.89	2.46±0.92	3.19±1.00

*1: never

2: rarely

3: sometimes

4: often

5: always

**based on Kruskal-Wallis test result

***based on Mann-Whitney test result

^{a b} : different superscript letters denote significant differences across the type of consumers or gender for each occasion (p < 0.05)

For the category of gender, no significant difference was found. Just as categories of users, journey is an event when consumption of packaged beverages increased the most.

Consumer knowledge

Nutrition knowledge is expected to have an impact on understanding and using of nutrition information and decision making in general. According to the previous study [14], nutrition knowledge was found to be higher in females and people with higher education.

However, most studies did not indicate the existence of relation between socio demographic factors and nutrition knowledge [14]. The consumer knowledge measured was focused on the knowledge of information on beverage packaging. This knowledge was measured objectively with knowledge questionnaire.

Subjectively, the respondents were asked to assess their own knowledge with some questions, whereas the objective knowledge was measured by 18 questions focused on the nutritional composition of beverage packaging and the effect on health. In this section, the respondents were asked to answer true or false to statements available. The objective knowledge was measured based on the correct answers submitted and then the respondents were categorized into two groups: insufficient and sufficient. The respondents who answered 80% of questions correctly were considered of having sufficient knowledge. However, having examined through a questionnaire of knowledge, it was found that only two respondents had sufficient knowledge. It meant there was severe lack of knowledge obtained by adolescents in Surakarta regarding packaged beverages they consumed.

How to choose a drink and the use of nutritional value information

This study aimed to determine what factors influenced teens when choosing packaged drinks. In the questionnaire, the respondents were asked to indicate the frequency, or how often they consider various factors (characteristics) on the beverage they consume. The characteristics in question, among others included price, taste, type and color of the packaging, product color, halal statement, name of manufacturer, ingredients, serving method, methods of storage, fat content, protein content, carbohydrate, sugar, sodium and vitamin content.

As could be seen from Table 6, for user groups, the differences were found only in the ingredients. Nevertheless, there was a tendency that light users cared more about the factors that prompted than medium and heavy users.

In the category of gender, the significant difference was obtained on the taste, packaging type and color, product color, halal label, ingredients, presentation and storage method. For all these criteria, women paid more attention compared to the male respondents. In general, for factor of nutrient content (fat, protein, carbohydrates, sugars and sodium), women had greater tendency to pay attention on these factors compared to men, even though there was no significant difference.

Tab 6. Considered factor when buying packaged drinks

	Price	Taste	Packaging	Product color	Halal label	Producer	Ingredients	Serving method
	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD
Type of consumers **								
Light	3.59±1.12	4.19±0.83	3.25±1.35	3.00±1.45	4.50±0.91	2.93±1.79	3.66±1.12 ^b	3.54±1.19
Moderate	3.70±1.18	4.01±0.93	3.32±1.19	3.15±1.16	4.52±0.91	2.84±1.26	3.26±1.15 ^{ab}	3.21±1.14
Heavy	3.36±1.36	3.91±1.04	2.91±0.83	2.73±1.19	4.09±1.45	2.91±1.58	2.82±1.33 ^a	2.91±1.14
Gender ***								
Female	3.76±1.01	4.39±0.66 ^b	3.67±1.12 ^b	3.67±1.08 ^b	4.72±0.69 ^b	2.76±1.27	3.67±1.03 ^b	3.72±1.04 ^b
Male	3.57±1.23	3.93±0.96 ^a	3.08±1.25 ^a	2.77±1.28 ^a	4.37±1.03 ^a	2.94±1.61	3.26±1.21 ^a	3.14±1.18 ^a

Tab 6. (continued)

	Storage method	Fat content	Protein content	Carbohydrate content	Sugar content	Sodium content	Vitamin content
	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD
Type of consumers **							
Light	3.32±1.15	3.09±1.26	3.07±1.20	3.09±1.19	3.12±1.19 ^a	3.09±1.13	3.35±1.12
Moderate	3.31±1.12	3.07±1.13	3.00±1.11	3.10±1.13	3.08±1.07 ^a	2.81±1.09	3.26±1.06
Heavy	2.91±0.94	3.09±1.14	3.27±1.10	3.00±1.00	2.55±1.13 ^b	2.91±0.94	3.09±1.14
Gender ***							
Female	3.61±1.05 ^b	3.22±1.22	3.11±1.09	3.19 ± 1.10	3.17±1.11	3.02±1.07	3.35±1.05
Male	3.14±1.12 ^a	3.01±1.15	3.02±1.17	3.04 ± 1.17	3.01± 1.14	2.89±1.12	3.25±1.10

- * 1: never
- 2: very rarely
- 3: rarely
- 4: sometimes
- 5: often
- 6: very often
- 7: always

**based on Kruskal-Wallis test result

***based on Mann-Whitney test result

^{a b} : different superscript letters show significant differences across the type of consumers or gender for each factor (p < 0.05)

The use of nutrition information

One method for consumer to understand the characteristics of food/beverages is by using label including nutrition label. Differences among individuals on the use of labels may be related to personal characteristics such as gender, education, age, nutrition awareness, nutrition knowledge and social class [15]. On the other side, consumers look for information that help them get more pleasure from food, better diet, safety, origin of food, and other condition [16].

This study also assessed the use of nutrition information on label of food in general and packaged drinks in particular. Nutritional value information is the information on the packaging label containing the nutrient content of the food or beverage product. This information could be used as a basis for consumers to choose certain food products. The factors that influence the use of nutritional information as well as questions about the nutritional value of this information were compared between the criteria of categories of users and gender. Thus, the difference is expected to obtain an overview of consumer behavior when using these factors in choosing a packaged beverage based on these criteria.

Based on Table 7, the heavy users are the group who most rarely read nutritional value information when purchasing beverage in general. The previous study [13] found a contrasting result, which stated that heavy users used more information on label than lower users.

As for gender, between men and women, there was no significant difference at all to all types of drinks. Female participants were observed to use nutrition information on food

slightly more often than men even though no significant difference was found. This result matched to the previous study [17] which found no significant differences in information use on drinks that were captured according to gender.

In general, this study found that respondents rarely use nutrition information as a means to decide their drinks. On juice and energy drink, a slightly higher results were found but still in the range of rarely. This was probably because of their expectation that juice and energy drink would provide specific type of nutrition.

Tab 7. The use of nutrition label

	Use of nutrition information on label					
	General	Soda	Low calorie soda	Tea/coffee	Juice	Energy drink
	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD	Mean*±SD
Type of consumers **						
Light	3.03±1.07 ^a	2.94±1.38	2.68±1.58	2.79±1.36	3.08±1.25	3.19±1.38
Moderate	2.69±0.88 ^a	2.72±0.93	2.59±0.93	2.87±1.06	3.06±1.07	2.93±1.14
Heavy	2.18±0.75 ^b	2.55±0.93	2.78±0.97	2.64±1.12	2.91±1.04	2.82±1.17
Gender ***						
Female	2.93±0.95	2.80±1.09	2.65±1.22	2.89±1.28	3.22±1.11	3.07±1.27
Male	2.73±0.99	2.79±1.23	2.62±1.21	2.79±1.14	2.97±1.14	3.00±1.23

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***based on Mann-Whitney test result

^{a b} : different superscript letters denote significant differences across the type of consumers or gender for each occasion (p < 0.05)

The result of this study revealed almost same fact as the previous study that was conducted in South Korea [18], in which high school girls had generally low nutrition knowledge and low use of food label. Low level of use of nutrition information may be caused by the difficulties in reading and understanding such information [19].

CONCLUSION

It was found that heavy consumers drank all type of beverages more frequently and bought more from food kiosks and cafeteria/restaurant compared to other categories. They

used packaged drinks to substitute fresh water, milk and tea or coffee more than moderate or light users.

Most of heavy consumers usually consumed packaged beverages on the occasions of having a meal and relaxing at home, relaxing outdoor, working or studying at school, welcoming guest, visiting relatives and attending invitation. Heavy consumers also did not pay attention on the ingredients compared to other categories. Most of them did not read the nutritional information before buying beverages.

It was also found that more women consumed tea or coffee, by buying in a cafeteria or a restaurant, more than their male counterparts. On the other hand, male respondents drank energy drinks more. On the function of the consumption and when to consume the beverages, there was no significant difference found between men and women.

As predicted, there were many factors that were considered to be the factors for women, compared to men, when choosing beverages for example in terms of taste, type and color of packaging, product color, halal label, ingredients, serving, and storage method. However, there was no significant difference between male and female in reading the nutrition label before buying beverages even though there was a tendency that female more frequently read nutrition information before deciding which beverage they chose. It was then necessary to educate adolescents to increase their knowledge regarding nutrition and therefore will increase their willingness to use nutrition label as a means to decide which food or beverage to consume.

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