

CONSUMERS' UNDERSTANDING AND INTERPRETATION TOWARDS THE MALAYSIAN HEALTHIER CHOICE LOGO

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Abstract

The Ministry of Health's deployment of the Healthier Choice Logo (HCL) could be the turning point for consumers to alter their nutrition lifestyle by practising healthy eating as a better interpretation of HCL on food products help them to identify and make healthier food choices. This study aimed to evaluate consumers understanding and interpretation towards Malaysian HCL. This study is a cross-sectional study and a quantitative approach. One hundred four respondents, aged above 15 years old, who reside in Malaysia and know either Malay or English, were involved. Data collected using a set of questionnaires were analysed using descriptive statistics and Pearson correlation. The findings reveal a medium level of understanding among Malaysian consumers towards the Healthier Choice Logo and a high-level interpretation of the Healthier Choice Logo among the consumers in Malaysia. There was also a positive correlation between the understanding and interpretation of the consumers' data regarding the Healthier Choice Logo. This study also shows that the food label does help consumers identify and make healthier food choices.

Keywords: Consumer, Food Industries, Food Label, Healthier Choice Logo

Introduction

Non-communicable diseases (NCDs) are the major cause of death worldwide, causing 41 million deaths annually and contributing to 71% of all deaths globally (1). While in Malaysia, NCDs are responsible for 67% of premature mortality (2). NCDs can also be recognised as chronic disease because it tends to be long. Genetic, physiological, and behavioural factors and the environment are the reason for the outcome. Risk factors of obesity and NCDs that include diabetes, hypertension, and hypercholesterolemia are unhealthy diets. The Ministry of Health's deployment of the HCL could be the turning point for consumers to alter their nutrition lifestyle by practising healthy eating as a better interpretation of HCL on food products help them to identify and make healthier food choices. MoH's implementation of HCL aimed to help consumers achieve a lesser incidence of NCDs.

A previous study found that 60% (n = 220) of the respondents will choose products with HCL, although the price will be set. It shows that implementing HCL as one of the food labels might elevate confidence in buying food products. Evidence proves that consumers are foreseen to voluntarily make nutrition lifestyle changes with HCL on food products (3). Furthermore, with a better

understanding and sufficient knowledge of the information presented on the food label, consumers are more likely to help reduce the total number of NCDs prevalence in Malaysia. It might lead the national stakeholders, policymakers, and relevant authorities to regulate policy and plan programs to educate or related fields to promote healthier eating practices among consumers in Malaysia.

The Healthier Choice Logo (HCL) initiative by the Ministry of Health (MoH) Malaysia aims to encourage healthier eating practices. Nevertheless, Malaysia still needed to study how consumers understood and interpreted the Healthier Choice Logo (HCL). Given the importance of this area of study and the need to draw attention to this issue, this research will inform and substantiate national stakeholders' and policymakers' use of HCL in selecting healthful foods. Last but not least, the information obtained and collected data would assist the relevant authorities in helping the consumer to identify and make healthier food choices. Hence, the largest contribution to the cause of death, NCDs, can be used to control the progression of NCDs.

According to the National Health and Morbidity Survey 2019 report, diabetes, hypertension, and hypercholesterolemia are NCDs in Malaysia, with the prevalence of diabetes

rising significantly over time. They were followed by the high prevalence of the other two diseases mentioned. Thus, with the increasing prevalence of NCDs, Malaysia cannot reduce the premature mortality rate due to NCDs. Unhealthy diet practices characterised by excessive consumption of salt, sugar, fat, and overall energy and lacking consumption of fruits, vegetables, and whole grains are reported to cause NCDs (4). This has led the HCL to be introduced by the Ministry of Health (MoH) Malaysia to provide an environment that supports healthy eating practices and assists consumers in identifying healthier food products (5).

Despite numerous food products displaying HCL as one of their food labellings, most consumers need help understanding food nutrition labels thoroughly to make literate dietary choices. According to studies, they were found to be due to a lack of knowledge of the labelling value of food, trouble interpreting the label information, and lack of health consciousness.

Finally, this study could assist relevant authorities in helping consumers better understand nutrition information on food labels and provide an environment that supports healthy eating practices. Therefore, this study will help the relevant authorities educate the consumers regarding the practicality of food labelling, especially the HCL so that consumers can identify and adapt to healthier food choices.

Materials and Methods

Research design

This study is a cross-sectional study and a quantitative approach. The validated and reliable questionnaires were used in this study (6).

Study location

This study was carried out across all 14 states of Malaysia.

Sampling

The target population for this study was consumers that live in Malaysia. The consumers range from teenagers to early adults and older adults. Hence, this study has designated that all individuals in any form of Malaysia are eligible to participate in this study to represent the population. The convenience sampling method was used in the study. This sampling method mostly depends on the participants' ease of access. The participants volunteered to take part in this survey. Below is shown the calculation of the sample size.

$$n = \frac{Z^2 pq}{e^2}$$

where,

- n = number of respondents required
- Z = the standard normal deviate, set at 1.96 (which corresponds to the 95% confidence level)
- p = the proportion in the target population to have a specific characteristic [if no estimate available, set at 50% (0.50)]
- q = 1-p
- e = the desired level of precision or accuracy, set at 0.05
- n = 100

Data collection

Data collection started in February 2022 until July 2022.

Data analysis

The data were examined using Statistical Package for Social Sciences (SPSS) (IBM SPSS Statistics, USA) version 26.0. Using the SPSS, Describing the respondents' socio-demographic factors along with the questionnaire's answers will be a descriptive analysis such as frequency, and percentage. Meanwhile, the correlation between understanding and interpretation was tested using SPSS using Pearson correlation.

Results

Demographic characteristics of respondents

The questionnaire consists of 3 sections: demographic, understanding, and interpretation. The demographic questions for the respondents are asked in the survey's initial part. The respondents' demographic distribution is shown in Table 1.

Table 1: Demographic data of respondents

	Frequency	Percentage
Demographics	n = 104	
Age groups		
18-28	58	55.8
29-39	5	4.8
40-60	41	39.4
Gender		
Male	43	41.3
Female	61	58.7
Educational level		
Primary	1	1
Secondary	5	4.8
Tertiary	98	94.2

Table 1: Demographic data of respondents (continued)

	Frequency	Percentage
Region		
Federal Territory	6	5.8
Northern region	59	56.7
East coast region	10	9.6
Central region	11	10.6
Southern region	10	9.6
Sabah & Sarawak	8	7.7
Household Income		
RM 1,500 - RM 4,849	46	44.2
RM 4,850 – RM 10,959	38	36.5
> RM 10,960	20	19.2
Family's food grocery		
Yes	60	57.7
No	44	42.3
How often of purchase?		
Never	1	1.7
Once a year	5	8.3
Every 6 months	7	11.7
Every 3 months	12	20
Once a month	6	10
Twice a month	20	33.3
Once a week	7	11.6
3-7 days a week	2	3.3

Consumers' understanding

The second section of the questionnaire comprised 10 questions regarding Malaysian consumers' understanding of the HCL is shown in Table 2.

Table 2: Consumers' understanding of the Healthier Choice Logo

Questions	No (%)	Not sure (%)	Yes (%)
I use the Healthier Choice Logo to aid myself when making purchase	26.9	9.6	63.5
Based on my knowledge. The food company must apply to the Ministry of Health to be eligible to use the HCL on a product	4.8	9.6	85.6
I find it difficult to understand the Healthier Choice Logo.	42.3	6.7	51.0
I think it is easier to identify a healthier product with the existence of the Healthier Choice Logo.	7.7	6.7	85.6
I am confused with the terminology/ words used in the Healthier Choice Logo.	41.3	7.7	51.0

Table 2: Consumers' understanding of the Healthier Choice Logo (continued)

Questions	No (%)	Not sure (%)	Yes (%)
I do not read the food label because I have limited understanding on the Healthier Choice Logo.	50.0	4.8	45.2
Only food products that are complied with all the provisions and requirements will be permitted to use the Healthier Choice Logo on their food packaging	5.8	5.8	88.5
A company can use the Healthier Choice Logo of its existing product on its brand-new product's packaging without sending a new application	57.7	7.7	34.6
Food products with Healthier Choice Logo on the packaging do not need to include Nutrition Information Panel (NIP)	69.2	6.7	24.0
Food industries can produce their own style of Healthier Choice Logo to be used on the food packaging of their food products	62.5	5.8	31.7

The respondents show medium agreement with the statements. However, the respondents highly agree that they think it is easier to identify a healthier product with HCL, with 85.6% agreeing.

The respondents highly used the HCL to aid them when purchasing. The respondents also understand that the HCL must be applied to the Ministry of Health. Only food products that comply with the provisions and requirements can use HCL on their food packaging.

Meanwhile, the respondents showed a medium understanding of whether the HCL can be produced in their style for food packaging. The same level of knowledge among consumers relating to the company can use the Healthier Choice Logo of its existing product on its brand-new product's packaging without sending a new application.

Consumer's Interpretation

The third section of the questionnaire comprised 8 questions regarding the interpretation of Malaysian consumers toward the Healthier Choice Logo (HCL), as shown in Table 3.

Table 3: Consumers’ interpretation of the Healthier Choice Logo

Questions	No (%)	Not sure (%)	Yes (%)
I believe the logo of the healthier choice without checking the nutrition table.	39.4	5.8	54.8
I consume products with Healthier Choice Logo to plan my daily energy intake and/ or other nutrient intakes.	20.2	9.6	70.2
The "healthier choice" claim on the logo means the product is a healthier choice in any food products category.	17.3	6.7	76.0
I feel the HCL food products had undergone better food production processes, making it safer to consume and healthier compared to the foods without HCL.	8.7	7.7	83.7
Healthier Choice Logo provides me with reliable and trustworthy information.	4.8	8.7	86.5
Referring to the picture below, the "healthier choice" claim on the logo gives a meaning that this product is a healthier choice within the prepared cereal food category only.	9.6	5.8	84.6
Referring to the picture above, the "healthier choice" statement on the logo means this product is healthier than other products in the tea drink category only.	10.6	6.7	82.7
I think food products with Healthier Choice Logo can be consumed without limits.	62.5	5.8	31.7

The respondents have medium strength to the statement that they believe the HCL without checking the nutrition table. This indicates that several respondents interpret that they may need to refer to the nutrition table with the existence of the logo. The respondents also highly agree that they use the product with HCL to plan their daily energy intake, the healthier choice claims on the logo mean the product is a healthier choice than those products without the logo, and they feel HCL food products have undergone better food production processes which make the product is safer and more beneficial to consume than other product. This shows that the respondents have a good interpretation of HCL.

The respondent has a good interpretation that HCL provides them with reliable and trustworthy information with a high mean score. Two questions tested the respondents’ interpretation by showing the HCL on food products based on their food category. The results showed

that the respondents interpreted the product with HCL as healthier than the other product in the same food category without HCL.

The last question in the questionnaire mentioned that the food product with HCL can be consumed without limits. Most respondents (62.5%) answered no. The respondents interpret that HCL on products cannot be consumed without limitations which shows good interpretation. The respondents’ interpretation level is high towards the Healthier Choice Logo.

Correlation of consumers’ understanding and interpretation

Correlational analyses were used to examine the relationship between the understanding and interpretation of the HCL.

Table 4: Correlation between understanding and interpretation towards the Healthier Choice Logo

	Understanding	Interpretation
Understanding		
Interpretation	0.67**	

**significant at 0.05 level (two-tailed)

The correlation (Pearson’s) between the mean score of understanding and interpretation of consumers towards the HCL is significantly different from 0 (p-value < 0.05) at a 5% level of significance. The observed correlation coefficient (r) is 0.671, which suggests a positive and moderate correlation. Therefore, there is a statistically significant, positive, and moderate correlation between the mean score of understanding and interpretation of the HCL among consumers in Malaysia.

Discussion

The results indicate that the respondents among consumers in Malaysia have a medium level of understanding of the Healthier Choice Logo (HCL). A study by Nieto et al. (7) shows the understanding of warning labels among adult consumers residing in the United States and Mexico reported good understanding. The result of understanding in this study may vary from the previous study as the limited number of respondents may underestimate the overall population. Research with a small sample size can alter the result by having small changes representing the overall population. A bigger sample size research can better interpret the consumers’ understanding and have a more accurate result.

Understanding Malaysian consumers toward the Healthier Choice Logo in this study also may be influenced by the age of the respondents. It was observed that 55.8% of the consumers were aged between 18-28 years old and 39.4% between 40-60 years old. The least age group in

this study was 29-39 years old, 4.8%. The respondents between 18-28 years old may not be interested in the health claims on the HCL; therefore, they tend to buy products without understanding the label displayed on the food products. In 2014, a study was carried out among adults aged 18-59. Only half of the Malaysian adults read the title when purchasing food (8). However, a past study in 2012 obtained that those over 46 years old have more interest in the health claims reported on the food label provided in canned food (9). The result can be related to this study outcome as most respondents were aged 40-60. Ageing consumers are more interested in their well-being and health, which is why they are more prone to read food labels and are interested in health claims. Those interested in health claims may have a better understanding than those less interested.

The respondent's level of education also may be a contributing factor to the consumers' understanding. In this study, 10% of respondents did not have a tertiary level of education which could be the reason why the understanding level of the consumers might be at the medium level. As mentioned before, in a small-scale study, even the slightest change in data may affect the outcome of the result. A study done in 2012 discovered that those with lower education levels were found less preferably to read the food labels' information. We may assume that those who do not read food labels are less interested in health claims in food labels leading to a lower understanding of the Healthier Choice Logo.

Apart from the factors mentioned, in the questionnaire provided, the consumers were asked whether they were one of the primary shoppers of their family. Recorded that 57.7% of the consumers were the primary shopper of the family, while 42.3% said otherwise. Of 60 respondents that are the primary shoppers, 1.7% never shop, 8.3% once a year, 11.7% once every 6 months, 20% once every 3 months, 10% once a month, 33.3% twice a month, 11.6% once a week and 3.3% others as of how often they buy food at the grocery store. The frequency of their shopping time may affect their knowledge and understanding of food label information. The level of understanding may be lower than expected as only 54.9% of consumers went to the grocery store as often as at least once a month. People who shop more tend to have better knowledge and understanding of food label information. Moreover, the understanding section in the questionnaire was also answered by the ones who are not the primary shoppers of their families. Hence, it may contribute to the medium level of understanding.

The primary role of nutrition was to provide accurate information on the content of any food product (10). Nutrition labelling, such as HCL, NIP, and others, guide consumers on the range of processed food nutrition and aids the consumers in decision-making (11). Therefore, the authorities should explore the understanding of the consumers relating to nutrition label information so it can meet its purpose and adjust according to consumer preferences.

Firstly, as mentioned in the discussion of understanding, the food label's role should convey the food product's content. There is a possibility that the Healthier Choice Logo may have met the purpose as shown in the consumers' interpretation result that they believe the health claims on the HCL are true. Glancing at the food label may have given the consumers quick information about the products. However, there is no exact affirmation of whether those with a high understanding of food labels may have a better interpretation. For the Healthier Choice Logo, the logo itself already displayed the word "Healthier Choice", which we may assume that even though consumers do not fully understand the use of the logo may interpret that the food products with HCL may be healthier. This is supported by 84.6%, and 82.7% of consumers interpret that food products with the more beneficial claims on the Healthier Choice Logo are healthier than those in the same category without the HCL. However, the underlying factors which lead to the interpretation may not be known.

Interpretation of the food label is important in making a grocery purchase. A well-designated and salient food label may be effective globally, as reported in a study carried out in July 2018 (12). The result from that study reported an increase in the decision to buy products with nutrition labels compared to those without labels. We can assume that the consumers may have a great interpretation of the Healthier Choice Logo, which brings to better decision-making as the label may have helped the consumer make a healthier choice.

Results found that there was a positive correlation between the two variables tested. The demographic factor may have affected the strength of the association between the two variables. Results may vary with other research depending on their respondents' backgrounds.

One study published in the Journal of Nutrition Education and Behavior found that while participants were generally aware of the HCL, they had varying interpretations of its meaning. Some participants believed the logo indicated a product was "healthy" or "low in calories." In contrast, others thought it meant the product was "better than other options" or "safe for consumption." The study concluded that there is a need for better communication and education regarding the HCL to ensure that consumers understand its intended purpose (13, 14).

Another study published in the International Journal of Behavioral Nutrition and Physical Activity found that participants were more likely to choose a product with the HCL over a similar product without the logo, but only if they had prior knowledge of the symbol and its meaning. The study also found that participants were more likely to choose a product with the logo if it was placed prominently on the packaging and associated with a specific nutrient, such as fiber or calcium (15, 16).

Overall, while the HCL has the potential to help consumers make healthier food choices, it is important that consumers have a clear understanding of its meaning and that it is

used appropriately by food industries. Further research and education may be needed to improve consumer understanding and interpretation of the logo.

Conclusion

In conclusion, the study showed a medium level of understanding and a high-level interpretation of the Healthier Choice Logo among consumers in Malaysia. There was also a positive correlation between the consumers' understanding and interpretation.

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Competing interests

The authors declare there is no conflict of interest.

Ethical clearance

We obtained approval from the Research Ethics Committee ref.no: REC/06/2021 (MR/396) and Medical Research and Ethics Committee (MREC) and the Ministry of Health Malaysia (MOH), registered under NMRR-21-1062-60203.

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