

KNOWLEDGE ATTITUDE AND PRACTICE OF CHECKING FOOD LABELS AMONG PRE-SERVICE TEACHERS OF THE UNIVERSITY OF IBADAN, OYO STATE, NIGERIA

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Abstract

Food labels are the first informative tool found by the customers during shopping, and are informative in terms of ingredients, nutrient content, and the presence of allergens of the selected product. Food labels are aimed at giving consumers access to comprehensive information on the nature and composition of food, to assist them in making informed food choices, and safeguard their health. Food labelling knowledge is powerful as it improves understanding and makes the decision process by consumers more precise and dynamic. In addition, consumer understanding of food label information establishes how, and whether, the information on food labels is used when choosing the food product to purchase. Descriptive research design was adopted. Two hundred pre-service teachers were randomly selected. Self-developed questionnaire with reliability co-efficient ($r = .78$). Three hypotheses were tested. Using Chi-square and Pearson Product Moment Correlation. The result revealed that 33.5% of pre-service teachers "sometimes" use food labels when purchasing food, followed by 28% who "rarely" use them, 20% who "often" use them, and 18.5% who "never" use them. The result also shows that there was a significant knowledge of food labelling among the respondents ($X^2_{cal}=136.280$, $X^2_{crit}=55.759$, $df=36$, $p < 0.05$). However,, there was no significant positive attitude towards checking food labels ($X^2_{cal}=41.200$, $X^2_{crit}= 55.759$, $df= 36$, $p > .055$). A significant negative relationship was found between knowledge and attitude towards food labelling ($r=-.304$, $p < 0.05$). The study concluded that there was a good knowledge but negative attitude towards food labelling among pre-service teachers. It was also concluded that a significant relationship exists between knowledge and attitude towards food labelling. The study therefore recommended that there is a need for a multisectorial collaboration between the federal ministries of health, education, youth affairs and the universities authorities and relevant educators to develop a policy for regulating the distribution of unhealthy foods and drinks in the school and the need for standardization of policies in order adapt uniform food labelling requirements to improve clarity and efficiency.

Introduction

The primary means to ensure that consumers make healthy and safe food choices is by means of a food label. Food labels are the first informative tool found by the customers during shopping, and are informative in terms of ingredients, nutrient content, and the presence of allergens of the selected product. Food labels are aimed at giving consumers access to comprehensive information on the nature and composition of food, to assist them

in making informed food choices, and safeguard their health. The importance of food labeling is to provide consumers with information which may influence their purchasing decisions. For example, consumers may want to know what ingredients are in a food product, how to cook it, how it should be stored, its best-before or use-by date, its fat content or other nutritional properties. Detailed, honest and accurate labeling is essential to inform the consumer as to the exact nature and characteristics of the food product, enabling them to make a more informed choice. The knowledge of food labelling is powerful as it improves understanding and makes the decision process by consumers more precise and dynamic (Prinsloo, Van der, Bosman and Erasmus 2022). In addition, consumer understanding of food label information establishes how, and whether, the information on food labels is used when choosing the food product to purchase (Jacobs, de Beer and Larney 2021). Therefore, for food labels to make an impact, consumers must be exposed, informed, and understand label information correctly. Consumer understanding of food labels helps to ensure that the brand reaches its full knowledge provision potential. Consumer knowledge has an impact on all facets of consumer purchasing behaviour (Vigar-Ellis, 2016).

During the last two decades, food product labelling has become a popular policy tool, particularly with respect to the provision of nutrition and health information, nutrition labelling is a valuable tool in learning how to apply nutrition information in a practical way. The purpose of nutrition labelling is to provide information on food products to reinforce healthy eating practices and support consumers in their efforts to improve their food choices. Nutrition labels provide information about the number of kilocalories and the amount of proteins, carbohydrates, fat, and certain other nutrients in a food (Sloan, 2006). It is essential for consumers to know about the nutrition information because it can help them to choose healthier food and to avoid contents or ingredients that they are allergic to and prevent NCDs like diabetes, obesity, cancer. Consumers need to know what nutritional contents of foods are so they can purchase foods of better nutritional quality. Education on nutrition labelling is one component of a comprehensive nutrition education programme. It is important that consumers have basic nutrition knowledge first, before appreciating nutrition labelling. A health-conscious shopper may use the percentages shown on the label to determine how well each serving of food fulfils recommended nutritional requirement. For companies competing in the global food and beverage marketplace, understanding local consumer attitudes and purchase behaviour regarding healthy foods, nutrition, and labelling is critically important for success (Food Standards Australia and New Zealand 2004). Food labels are used to inform the consumer and help sell the food products (Cheftel, 2005). The food label was necessary to facilitate informed choices or to prevent false, misleading or unreliable conduct (Rumble, Wallace, Deeps, McVay and Curran 2003).

There are many factors being considered during buying food products such as packaging, price, taste, nutritional content and expiry date. "In some cases, consumers do not read the claims carefully or transfer the meaning from a familiar food label to an unfamiliar one, potentially leading to over-generalisation and inaccurate conclusions (Draper, Adamson, Cleggs, Malam, Riggs, and Duncan 2011). Some consumers search for additional information on a food package to help them relate the claim to their earlier knowledge and experiences (Svederberg and Wendin, 2011), while others find reading food

labels time-consuming and strenuous (Signal, Lanumata, Robinson, Tavila, Wilton and Mhurchu 2008; Zezelj et al., 2012). On the other hand, several problems do occur regarding the uses of food label, for instance, some consumers do not understand food nutrition label well enough to make healthy food choices (Pelletier *et al.*, 2004) Several studies have focused on use of food labels in developed countries (Aygen, 2012; Grunert, 2007; Grunert et al., 2010; McLean-Meyinsse, 2001; Mhurchu and Gorton, 2007; Ollberding et al., 2010). However, data are seemingly deficient or readily unavailable in developing countries, including Nigeria about the use of food labelling, finding a means through which pre-service teachers can be motivated on the use of food labelling would represent a way of avoiding nutritional diseases, chronic diseases and prevent deaths that are usually preventable. This is a research gap which this study intends to fill. Having knowledge and correct attitude towards food labels is important to in influencing dietary choices, nutritional knowledge and food outcomes.

A lot of effort has been put into the regulation of packaged food in different countries of the world, Nigeria included. This attention on the sector has led to increased demands on producers of packaged food to correctly state and specify the exact ingredients and in their correct proportions that come together to make up the product. This nutritional information is now available on the packages of all approved and duly registered packaged food in Nigeria, available also according to industry standard regulations and duly monitored by the National Agency for Food and Drug Administration and Control in Nigeria (NAFDAC).

Nutritional information's availability is one thing; getting the final consumer to factor it into making purchase decisions is another. In spite the availability of guidelines for product ingredient labelling, most consumers make purchases without taking the offered information into account and in cases where an attempt is made to read the nutritional label, some consumers are faced with an intellectual brick wall, as the language of data presentation is more complex than what the average shopper can follow. The consumer may not be able to easily comprehend the nutrition information represented in form of percentage and in some cases such information has little information on possible allergies and the possibility of contributing to non-communicable diseases like obesity, diabetes and cancer among others. There has also been reports of expired food products being wrongly labelled for the purpose of personal profits thus, endangering the lives of the food consumers.

This research work to take a critical look at knowledge and attitude towards food labelling among pre-service teachers in University of Ibadan, Oyo state with a view to discovering the level of their knowledge and the relationship between their knowledge and attitude in a bit to ensuring a healthier purchasing culture in our tertiary institutions and the society at large.

Methodology

The descriptive research design was adopted. Four departments that are not science related were purposively selected as those in sciences may be doing courses related to food labelling. Fifty respondents were randomly selected from each of the selected departments. In total, two hundred male and female undergraduates were used for the study. Self- structured questionnaire tagged Knowledge and Attitude towards food label

Scale (KAFLS) with reliability co-efficient $\alpha=0.78$ was used as instrument for data collection. The data was collected personally with the help of research assistants. Data collected was analyzed using inferential statistics of Chi-square and Pearson Product Moment Correlation. All the stated hypotheses were tested at .05 alpha level.

Results

Research question1: How often do pre-service teachers practice the use of food labels when purchasing

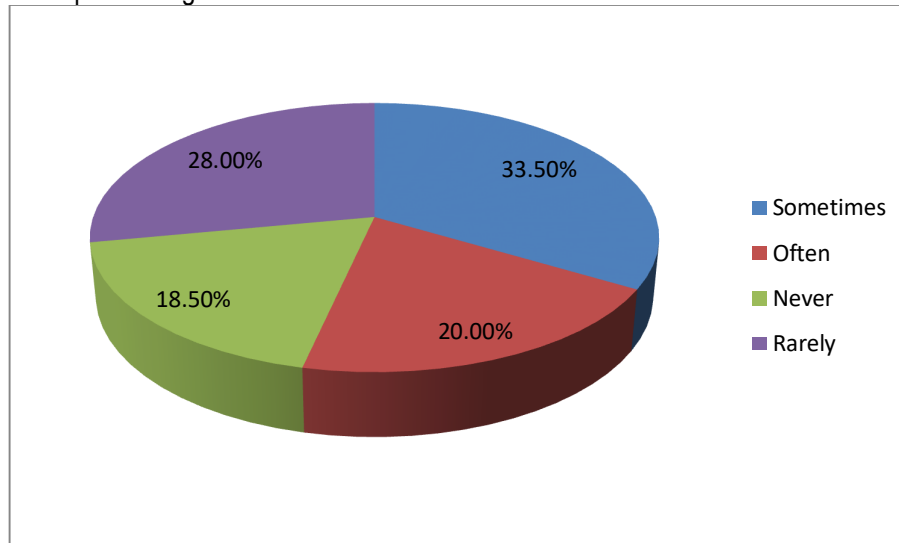


Fig.1.0: Pie chart showing How often do pre-service teachers practice the use of food labels when purchasing

The result revealed that 33.5% of pre-service teachers "sometimes" use food labels when purchasing food, followed by 28% who "rarely" use them, 20% who "often" use them, and 18.5% who "never" use them. The fact that only 20% of pre-service teachers reported often using food labels when purchasing food is concerning, as this suggests that many pre-service teachers may need to be made aware of the importance of using food labels. Evidence from literature suggested that the use of food labels is associated with healthier food choices and better dietary quality, particularly among adolescents. Therefore, promoting food labels among adolescents could be an effective strategy to improve their dietary quality and promote healthier eating habits.

Hypotheses one: There will be no significant knowledge of food labelling among the pre-service teachers of University of Ibadan, Ibadan.

Table 1: Chi-square table showing knowledge of food labelling among pre-service teachers in University of Ibadan

Items	SA	A	D	SD	X ² cal	X ² crit	Df	P
K1	51 34.0%	84 56.0%	15 10.0%		136.280	55.759	36	.000
K2	64 42.0%	75 50.0%	9 6.0%	2 1.3%				
K3	64 42.0%	75 50.0%	10 6.7%	1 .7				
K4	73 48.7%	66 44.0%	8 5.3%	3 2.0%				
K5	50 33.3%	90 60.0%	8 5.3%	2 1.3%				
K6	51 34.0%	90 60.0%	8 5.3%	2 1.3%				
K7	64 42.7%	77 48.0%	8 5.3%	1 .7%				
K8	33 22.0%	91 60.7%	23 15.3%	3 2.0%				
K9	48 32.0%	93 62.0%	7 4.7%	2 1.3%				
K10	62 41.3%	86 57.3%	2 1.3%					

Table 1 shows that there is a significant knowledge of food labelling among pre-service teachers of University of Ibadan ($X^2_{cal}=136.280$, $X^2_{crit}=55.759$, $df=36$, $p < 0.05$). Therefore, the null hypothesis was rejected.

Hypotheses two: There will be no significant positive attitude towards food labelling among pre-service teachers of University of Ibadan

Table 2: Table 8: Chi-square table showing attitude towards food labelling of pre-service teachers in University of Ibadan

Items	SA	A	D	SD	X ² cal	X ² crit	Df	P
A1	2 1.3%	5 3.3%	82 54.7%	61 40.7%	41.200	55.759	36	.071
A2	13 8.7%	102 68.0%	35 23.3%					
A3	41 27.3%	78 52.0%	18 12.0%	13 8.7%				
A4	5 3.3%	17 11.3%	103 68.7%	25 16.7%				

A5	4 2.7%	35 23.3%	92 61.3%	19 12.7%				
A6	5 3.3%	46 30.7%	86 57.3%	13 8.7%				
A7	16 10.7%	14 9.3%	86 57.3%	34 22.7%				
A8	34 22.7%	67 44.7%	39 26.0%	10 6.7%				
A9	66 44.0%	56 37.3%	26 17.3%	2 1.3%				
A10	75 50.0%	57 38.0%	18 12.0%					

		Value	Approx. Sig.
Nominal by Nominal	Phi	.181	.081
	Cramer's V	-.168	.077
	Contingency Coefficient	.134	.000
Interval by Interval	Pearson's R	.156	.071 ^c
Ordinal by Ordinal	Spearman Correlation	.098	.149 ^c
N of Valid Cases		200	

Table 2 above revealed that there is no significant attitude towards food labelling among pre-service teachers of University of Ibadan ($X^2_{cal} = 41.200$, $X^2_{crit} = 55.759$, $df = 36$, $p > .05$). The crammer V result shows that their attitude is negative (-.168). Therefore, the null hypothesis is accepted.

Hypothesis three: There will be no significant relationship between knowledge and attitude towards food labelling among pre-service teachers of University of Ibadan, Ibadan.

Table 3: Correlation table showing relationship between knowledge and attitude towards food labelling among pre-service teachers of University of Ibadan

		Knowledge of Food labelling	Attitude towards food labelling
Knowledge of Food labelling	Pearson Correlation	1	-.304
	Sig. (2-tailed)		.024
	N	200	200
Attitude towards food labelling	Pearson Correlation	-.304	1
	Sig. (2-tailed)	.024	
	N	200	200

The table above shows that there is a significant moderate inverse relationship between knowledge and attitude towards food labelling among pre-service teachers of University of Ibadan ($r=-.304$, $p<0.05$), therefore the null hypothesis is rejected.

Discussion

Majority of the respondents had good knowledge of food label use which could be due to the fact that the respondents were all undergraduate students and might have had prior knowledge on food labels. More than half, of the respondents the correctly respondents correctly stated that food label was all written components on the packaged food product, almost all of the respondents correctly stated that they knew what best before means The respondents knowledge on the reported food label components was relatively high as a preponderance of the respondents correctly reported the components of food labels, a findings which may be as a result of health consciousness among the respondents and also probably influenced by their academic environment with free access to nutritional information and this findings was in divergent to the findings of a study conducted among college students by Norazmir, Norazlanshah, Naqieyah, Khairil Anuar, (2012) where a lack of knowledge regarding nutrition labels resulted in minimal food label reading.

Respondents' knowledge on information gotten from the food label showed that, majority correctly reported that information on the standard of the product, product life span could be derived from the food label a findings similar to that of the study conducted by Nurliyana, Norazmir, et al. (2011). The study revealed that respondents' attitude was negative and this is in line with the findings of Misra (2007). Misra (2007) in her study indicated that food label use is affected by the attitudes of consumers towards nutritional content. Similarly, it has been documented that consumers with high health consciousness have positive attitudes towards nutrition labelling and that there exists a potentially significant association between label attitude and food label use. It was disturbing to find out that a little below one third of the respondents believed that wrong information in food label is not dangerous to the health.

Conclusion and recommendations

The study concluded that there was a good knowledge but negative attitude towards food labelling among pre-service teachers. It was also concluded that a significant relationship exists between knowledge and attitude towards food labelling. Based on the findings of the study, the following recommendations are made

1. There is a need for a multisectorial collaboration between the federal ministries of health, education, youth affairs and the universities authorities and relevant educators to develop a policy for regulating the distribution of unhealthy foods and drinks in the school and the need for standardization of policies in order adapt uniform food labelling requirements to improve clarity and efficiency.
2. There is a need to re-orientate the students that "reading food labels" is one of many strategies, along with controlling portions, making better food choice, exercising getting more sleep, drinking more water in preventing the development of chronic Non communicable diseases in order to live a healthy and fulfilled life.

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