

## The effect of education on knowledge and attitude in halal and tayyib food selection among muslim

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### ABSTRAK

**Latar Belakang:** Jumlah penduduk muslim sebanyak 236.53 juta pada tahun 2021, atau sebesar 86,9% dari total populasi penduduk Indonesia yang berjumlah 273,32 juta. Di Indonesia, Pemerintah mewajibkan agar semua produk pangan disertifikasi halal, akan tetapi belum semua produsen pangan mengerti kepentingan dari sertifikasi halal.

**Tujuan:** Tujuan dari penelitian ini adalah untuk menganalisis pengetahuan dan sikap dalam pemilihan pangan halal dan thoyyib pada umat muslim.

**Metode:** Penelitian ini menggunakan desain eksperimental dengan jumlah responden sebesar 89 orang. Teknik sampling yang digunakan adalah accidental sampling. Pemberian edukasi terkait pangan halal dan thoyyib diberikan secara online melalui zoom meeting. Sebelum dan sesudah edukasi dilakukan pengukuran pengetahuan dan sikap menggunakan kuesioner online melalui google form.

**Hasil:** Responden yang mendapatkan informasi mengenai pangan halal dan thoyyib dari media social sebesar 88,76%. Terdapat perbedaan yang signifikan antara pengetahuan dan sikap sebelum dan setelah pemberian edukasi ( $p < 0.005$ ). Nilai rata-rat pengetahuan meningkat setelah edukasi, namun tidak pada sikap yang menurun setelah edukasi.

**Kesimpulan:** Pemberian edukasi dapat meningkatkan pengetahuan terkait pangan halal dan thoyyib ( $p < 0,005$ ). Pada penelitian selanjutnya edukasi dapat diberikan baik secara daring maupun luring dengan media edukasi yang lebih menarik.

**KATA KUNCI:** edukasi; halal; online; pangan; thoyyib

### ABSTRACT

**Background:** Total Muslim population in Indonesia is 237.53 million in 2021, this number is equivalent to 86.9% of the country's population of 273.32 million people. In Indonesia, the government requires all products to be halal-certified, but still, not all producers understand the importance of halal certification. They are constrained by costs and lengthy procedures in obtaining halal certification.

**Objectives:** The objective of this study was to analyze knowledge and attitudes in the selection of halal and tayyib food among muslim.

**Methods:** This was experimental research using an accidental sampling method. The samples were 89 samples. Inclusion criteria are Muslim adolescents and adults who are willing to be sampled. The research steps were: 1) compiling educating materials composed of "The Advantage of Consuming Halal and Tayyib Food for Health" and "Halal: from A to Z and Critical Points of Modern Food", 2) developing educational-purpose Powerpoint media, 3) giving a pretest to identify respondent knowledge and attitude before education, 4) giving education and carrying out a discussion online via Zoom Meeting for three hours, and 5) giving a posttest to identify respondent knowledge and attitudes after education.

**Results:** Samples who get information related to halal food mostly obtained from social media by 88.76%. There was a significant difference in knowledge and attitudes regarding the selection of halal and tayyib food after being given education ( $p < 0.005$ ). The average knowledge score increased after education, but the average attitude score decreased

*after education.*

**Conclusions:** *Education on halal and tayyib food, as attested to this research, could elevate knowledge yet not change attitudes. Before and after education knowledge was significantly different ( $p < 0.005$ ). Future researchers are expected to give online or offline education for a longer duration and use more attractive media.*

**KEYWORDS:** *education; food; halal; online; tayyib*

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## INTRODUCTION

The majority of the Indonesian population is Muslim. It is reported that Indonesia was inhabited by 236.53 million Muslims in 2021, or 86.9% of the total Indonesian population, which was 273.32 million (1). In Islam, as instructed by God through the Holy Koran, specifically QS. Al-Maidah 88, QS. Al-Baqarah 168 dan 172, QS. An-Nahl 114, and QS. Al-Mukminun 51, Muslims must only consume halal and *tayyib* food. The word "halal" was derived from Arabic. It means "permitted/warranted". It defines anything permitted by Islamic sharia to carry out, use, or be attempted to and anything not associated with potential harm. Anything halal is determined by how to get it, which must not be through a prohibited sale-purchase transaction. Halal has its opposite, i.e., haram. Haram was also derived from Arabic. It means forbidden. It applies to anything strictly forbidden to conduct or use due to the contents or acquiring methods (2).

Additionally, Muslims must also be concerned about *tayyib*. It describes anything considered physically or spiritually good or anything not bad or not disgusting (3). As such, halal and *tayyib* food relates to healthy and nutritious food permitted to consume following Islamic sharia. Halal values of food products are absolute for Muslims. In so doing, the state must be mindful of halal

product assurance. Law Number 33 of 2014 concerning Halal Product Assurance states that products entering, circulating, and traded in the territory of Indonesia must be halal-certified. On food products, halal information is indicated by a label or logo attached to the packaging. If producers have a halal logo on their products, it guarantees that the products have been halal-certified.

A legal halal certificate and logo are issued by the Halal Product Assurance Organizing Agency (BPJPH) (4). The Halal Product Assurance Organizing Agency (BPJPH) marks a new era of halal product assurance in Indonesia. Halal product assurance (JPH) used to be the responsibility of society and voluntary. Nevertheless, through Law Number 33 of 2014, it becomes the state (government) responsibility and is mandatory.

However, some producers do not seek to get a halal certificate for their products. Based on the Halal Information System data from BPJPH to 2021, 31,529 business actors had proposed a halal certificate. Of the total number, 19,209 or 60.92% were micro business actors, and 5,099 or 16.17% were small ones. That is, there are 76% of UMK (micro and small business) actors. Regarding the need for halal food materials, domestic markets are dominated by micro and small business (UMK) actors who manage 65 million

business units. 70% of the business units focus on food, beverages, and culinary. That is, staple materials used are crucial issues in producing halal products. It is widely known that food and beverage industries have been blossoming in such a way with a variety of patterns, kinds, forms or appearances, packaging, food additives and more sophisticated processing and technology. Food and beverage industries should be aware of the medium and high risks of food material processing and processing methods. It is pertinent to the Halal Product Process (PPH), which is the concern of halal certification (5).

The awareness of the halal certificate in Indonesia remains static. That being so, in raising awareness, the parties concerned should take some actions, such as augmenting knowledge by participating in an exhibition, seminar, training, and so on regarding halal products and getting information on halal certification (6). According to a 2021 survey by Mastercard-Crescentrating, 73% of consumers perceived restaurants with a "No Pork, No Lard" label could ensure their products were halal (7). The label does not necessarily imply the products sold are halal. A study by Nurlatifah (2013) demonstrates that 72.5% of Muslim consumers perceive the paramount importance of consuming halal food as an obligation as Muslims (8). Nevertheless, Indonesian society's awareness of selecting, purchasing, and consuming halal products is considered low. Rather than perceiving the need to consume halal products, they perceive it as an obligation (9). Research on education on halal and *tayyib* food for Muslim consumers is thus requisite.

## **MATERIALS AND METHODS**

The research was carried out in September 2022 online via a *zoom meeting*.

This was experimental research with the one-group pretest and posttest design and using an accidental sampling method. The samples were 89 samples obtained through the dissemination of information about the existence of education regarding halal food and *tayyib*, then those who are willing to become research samples register first and are given a zoom link for providing education. Inclusion criteria are Muslim adolescents and adults who were willing to be samples.

The research steps includes: 1) compiling educating materials composed of "The Advantage of Consuming Halal and *Tayyib* Food for Health" and "Halal: from A to Z and Critical Points of Modern Food" from any journals and books, 2) developing educational-purpose Powerpoint media, 3) giving a pretest to samples to identify sample's knowledge and attitude before education, 4) giving education and carrying out a discussion online via Zoom Meeting for three hours, and 5) giving a posttest to samples to identify sample's knowledge and attitudes after education.

The question weights of the questionnaire pre and post test investigating the knowledge and attitude variables were quantified to acquire data. The knowledge questionnaire comprised ten multiple-choice questions. Correct answers were scored 10, and incorrect ones were scored 0. The scores were categorized into three categories: 1) good knowledge: >80, 2) acceptable knowledge: 60-80, and 3) poor knowledge: <60. For the attitude questionnaire, scores were quantified using a Likert scale: 1) for favorable questions: strongly agree: 4, agree: 3, disagree: 2, and strongly disagree, and 2) for unfavorable questions: 4: strongly disagree, 3: disagree, 2: agree, and 1: strongly agree. Scores were summed, and the maximum total score was 40 (100%). Attitudes fell under three categories: 1) positive attitude: >80%, 2)

neutral attitude: 60-80%, and 3) negative attitude: <60%. Wilcoxon Sign Rank Test (a comparative analysis) using SPSS 16 was conducted for data analysis.

## RESULTS AND DISCUSSIONS

### Respondent characteristics

Most samples were aged 17-25 (63 or 70,79% of the total samples) and categorized in late adolescence according to the Ministry of Health. 25 samples (28.09%) were aged 26-45 and categorized in adolescence, and one respondent was aged 46.65 (10%) (10). Most of the samples were students (52 or 58.43% of the total samples). 28 samples (31.46%) were nutritionists, and the rest had other jobs. The majority of samples, who were students with temporary income, earned < IDR1 million. 38 samples (42.70%) earned IDR1-4 million, 7 (7.87%) earned IDR4-10 million, and 2 (2.25%) earned > IDR10 million.

**Table 1. Respondent characteristics**

Characteristics	Total	
	n	%
Sex		
Male	5	5.61
Female	84	94.38
Age (years)		
17-25	63	70.79
26-45	25	28.09
46-65	1	1.12
Education		
Undergraduate student	53	59.55
Bachelor degree	35	39.32
Master degree	1	1.12
Occupation		
College student	52	58.43
Nutritionist	28	31.46
Civil State Apparatus (ASN)	2	2.25
Private employee	3	3.37
Lecturer	1	1.12
Housewife	1	1.12
Nutripreneur	2	2.25
Income (IDR)		
< 1 million	42	47.19
1-4 million	38	42.70
4-10 million	7	7.87
> 10 million	2	2.25

### Knowledge about Halal and *Tayyib* Food

Notoatmojo (2010) defined knowledge as the outcome of human sensing an object using the five senses, namely sight, hearing, touch, smell, and taste, affected by perceptual intensity (11). Knowledge was influenced by external and internal factors. The external factors were information media, culture, environment, and socio-economic factors (12). Table 2 lists information media on halal and *tayyib* food.

**Table 2. Information media of halal and *tayyib* food**

Information Sources	Total	
	n	%
Social media	79	88.76%
Family/friend	5	5.62%
TV	4	4.49%
Magazine/newspaper	1	1.12%

In **Table 2**, most samples (88.76%) accessed information about halal and *tayyib* food from social media. Indonesia was ranked third after China and India regarding the use of social media (13). Accordingly, food producers were encouraged to promote products more actively through social media. Table 3 exhibits knowledge about halal and *tayyib* food.

**Table 3. Knowledge about halal and *tayyib* food before and after education**

	Before		After	
	n	%	n	%
Poor	14	15.7	6	6.7
Acceptable	55	61.8	48	53.9
Good	20	22.5	35	39.3
Mean score	71.2 ± 15.9		78.6 ± 15.0	
Median	70 (30.100)		80 (40.100)	
p-value	0.000*			

\*Significance  $p < 0.05$  with Wilcoxon differential test

In **Table 3**, 14 samples (15.7%) indicated poor knowledge before education. The number declined to 6 (6.7%) after education. Similarly, samples with acceptable knowledge were 55 (61.8%) before education.

The number lessened to 48 (53.9%) after education. Samples with good knowledge were 20 (22.5%), increasing to 35 (39.3%) after education. The mean score of knowledge after education increased by 7.4 points, from 71.2 to 78.6. This is in line with Juniarti *et.al* (2022) that providing education can increase knowledge related to halal and tayyib food (22). A study by Nurlatifah (2013) demonstrates that 72.5% of Muslim consumers perceive the paramount importance of consuming halal food as an obligation as Muslims (8).

### Attitude toward Halal and Tayyib Food

An attitude was a preparedness to react to an object in a certain environment as the manifestation of understanding the object. It came with three main components: 1) belief (faith, idea, and concept of an object, 2) emotional state or evaluation of an object, and 3) the propensity to act (11). It played a major role in shaping behaviors. A positive attitude would develop positive behaviors, and vice versa (14). Attitudes toward halal food are pointed out in Table 4..

**Table 4. Attitudes toward halal and tayyib food before and after education**

Attitude	Before		After	
	n	%	n	%
Negative	0	0.0	0	0.0
Neutral	61	68.5	89	100.0
Positive	28	31.5	0	0.0
Mean score	78.0 ± 7.3		72.8 ± 3.8	
Median (min, max)	77.5 (62.5, 97.5)		72.5 (62.5, 80)	
p-value	0.000*			

\*Significance p < 0.05 with Wilcoxon differential test

In **Table 4**, no samples showed negative attitudes towards halal and *tayyib* food before and after education. 61 samples (68.5%) showed neutral attitudes. The number rose to 89 (100%) after education. Samples with positive attitudes before education were 28 (31.5%), and no samples showed positive attitudes after education. The mean score of attitudes decreased from 78.0 to 72.8.

The decrease was a result of several factors, e.g., limited duration of education, non-profound materials delivered, and unsupportive environmental conditions for education. Khomsan conveyed three communicational aspects: 1) information sources, i.e., educators were expected to deliver messages clearly and attractively, 2)

messages should be delivered aligned with participants' life patterns and socio-economic conditions, and 3) the number of messages that participants could understand relied on their knowledge, skills, communication, attitudes, available resources, and socio-economic pressure (15).

Although the knowledge score levelled up, there was not necessarily a linear relationship between knowledge, attitudes, and behaviors. Individuals with good knowledge did not necessarily show positive attitudes and good behaviors commensurate with their knowledge (16). Khan and Azam (2016) reported that attitude used to be the most significant factor in predicting the choice of purchasing halal food (17). Many previous studies suggested or concluded that halal food

attitude affected consuming halal food (18), (19), (20). Choo et al. (2004) found a positive relationship between innovation-oriented consumers and purchase intention (21).

The limitation of this research are the possibility of bias from the sampling technique and the presence of many external disturbances that cannot be controlled during online education. Researchers also have not performed statistical analysis that can control confounding factors.

## CONCLUSION AND RECOMMENDATIONS

Education on halal and *tayyib* food, as attested to this research, could elevate knowledge yet not change attitudes. To increase awareness, massive education is needed regarding halal and *thoyyib* aspects, especially for Muslim. Future researchers are expected to give online or offline education for a longer duration and use more attractive media. For food producer, the government has determined that all food products are required to be halal certificated in 2024, therefore this needs socialization and assistance from various halal centers for submission of halal certification.

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