



Knowledge, Attitude and Behavior on Halal Pharmaceutical Among Residents in East Jakarta

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ARTICLE INFO

Submitted : 10-10-2024

Revised : 20-10-2025

Accepted : 03-11-2025

Published : 31-12-2025

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ABSTRACT

Background: The guarantee of the halalness of a product has been regulated in Indonesian Law. However, there are still many drugs circulating without including halal certification.

Objectives: The purpose of this study was to assess knowledge, attitude and behaviour on halal pharmaceutical of people in East Jakarta.

Methods: This study conducted using cross-sectional method with snow-ball sampling. Data was collected through online using developed questionnaire in google-form. Univariate analysis was done to present the frequency of each characteristic as well as the level of knowledge, attitudes and behaviour of the respondents. Bivariate analysis using Spearman-Rho test conducted to obtain the correlation between variables.

Results: A count of 800 respondents participated in this study with more than three-quarters was identified has good knowledge (77.0%), positive behaviour (99.2%) and good behaviour (79.8%) toward halal pharmaceutical. The knowledge and attitude as well as knowledge and behaviour were significantly correlated (p-value <0.05) with positive direction (r 0.088 and r 0.262, respectively).

Conclusion: The result of the study showed a positive respond from respondents on halal pharmaceutical. This might be occurred because the research was conducted in the big city where they have more possibility to be exposed to the information about halal products, including halal pharmaceutical.

Keywords: Attitude; Behaviour; Halal; Knowledge; Pharmaceutical.

INTRODUCTION

Most of the Indonesian population embraces Islam. Halal is an important point in people's lifestyles for Muslim people. Halal in terms is something that is allowed or allowed. The rules of Muslims on the halal concept are the Al-Quran and Hadith. One of the laws of consuming halal food is clearly stated in QS. Al-Maidah verse 88 which means "Eat the halal and good" thus the need for a guarantee of the halalness of a product (1).

The guarantee of the halalness of a product has been regulated in Indonesian Law no. 33 of 2014, which states that the state guarantees the independence of every resident to worship according to their respective religions (2). Since there are still many products circulating in the community that are not guaranteed to be halal, the law guarantees the halalness of the products consumed by the public. Various kinds of products marketed in the territory of Indonesia must have halal certification, one example of these products is medicine (3).

As pharmaceutical product, drug is a substance or mixture of ingredients, used to diagnose, prevent, reduce, and treat disease or symptoms of a disease. Drugs are one of the pharmaceutical ingredients that play an important role in health. Drugs play a role in decreasing and improving a person's quality of life (4). Drug may contain herbal extracts, minerals, dosage formulations, or mixtures of ingredients that are processed into pills or powders to obtain efficacious compounds (4). Both herbal and chemical drugs have several critical points that are forbidden for Muslim people.

The critical point for drugs that must be considered is that the first raw materials for drugs which are the main ingredients for making drugs can be derived from animal or vegetable origin. If the raw material comes from pigs or animals that are not necessarily halal, the drug can be said to be haram. However, if it comes from a halal animal, then it must be ensured that it is slaughtered by Islamic law. Next is the auxiliary materials, for

example the coating of tablets or capsules derived from gelatine, it must be ensured that it comes from a halal animal and is slaughtered according to Islamic law. Then additional materials such as solvents, the solvent used must be ensured that it does not come from *khamr*. In the production process, care must be taken so as not to be contaminated with products that are not known to be halal (5,6).

In ensuring the halalness of a drug product, it can be seen from the packaging of the drug that has a halal certified label, one of which is issued by the Indonesian Ulema Council (MUI). The halal certification is given after the drug has passed the inspection and is free from non-halal ingredients. Based on data from Global Halal Center (LPPOM MUI), there are still many drugs circulating without including halal certification. However, the product is still selling well in the market, this shows that the level of public knowledge of halal medicine is still low (7).

A good level of knowledge will get a good attitude and behaviour. Someone with a high level of knowledge will encourage a positive attitude and good behaviour as well. The more diligent someone searches for information about halal products, it will increase the knowledge, attitudes, and behaviour of the community regarding the halalness of a drug (8).

Based on previous research that has been carried out in Malang district, it was found the level of public knowledge of halal drugs as much as 65% have good knowledge, 30% have sufficient knowledge, and 5% have less knowledge. In the public perception, namely 57% have a good perception, 42% have a sufficient perception, and as much as 1% have a poor perception. On the attitude of the community towards halal drugs, as many as 74% have a good attitude, 25% have a sufficient attitude and 1% have less attitude. From the results of this study, it can be said that the level of knowledge, perception and attitudes of people in Malang district towards halal drugs can be categorized as good (9). Meanwhile, study in East Java showed that consumers still hard to applied halal things in medicine, even though customer understand about halal (10). Another study found that general public and general medical workers Malaysia have good knowledge and positive attitude and perception about halal pharmaceutical (11,12).

According to the Ministry of Home Affairs (2021), the population of Indonesia who are Muslim is 86.88%. Meanwhile, in Jakarta, the majority of the population is Muslim, around 83% (13). The study found that the intention to buy halal pharmaceuticals in Indonesia is positively affected by attitude, religiosity, knowledge of halal products and perceived behavioural control (14)

Based on the explanation above, the author wants to conduct research on the level of knowledge, attitudes, and behaviour of the community towards halal drugs in East Jakarta. The reason for choosing the East Jakarta is that the majority of the population in the area is Muslim. In this area, no research has been conducted on the halal pharmaceutical.

METHODS

This study approved by ethic committee of University of Muhammadiyah Prof. DR. HAMKA with No. 03/22.01/01438.

Study design and setting

This research was conducted using a cross-sectional method with the sampling of respondents using a snow-ball sampling technique.

Questionnaire

The questionnaire was designed to assess the knowledge, attitudes and behaviour of the community regarding the halal pharmaceutical.

The questionnaire in this study was divided into 3 main parts consisting of the level of knowledge, attitudes, and behaviour. The level of knowledge related to the halal pharmaceutical consists of 9 questions, the responses given by the respondents with the answer choices are "true", "wrong", "don't know". Each question that is answered correctly is given a score of 1 and wrong and does not know is given a score of 0. A maximum score of 9 and a minimum score of 0, provided that the respondent is said to have good behaviour if he gets a score >75%, adequate behaviour if the score is 51-75%, and poor behaviour if the score is \leq 50% of the maximum score.

In the attitude section regarding the halal pharmaceutical consisting of 5 positive questions and 2 negative questions, the responses given in this section use a Likert scale, the answer choices are "Strongly Agree", "Agree", "Neutral or Hesitate", "Disagree", "Strongly Disagree". The maximum score is 35 and the minimum is 7. Respondents with a score of >50%, the maximum score is said to have a positive attitude, on the other hand, respondents with a score \leq 50% of the maximum score are considered to have a negative attitude towards the halal pharmaceutical.

In the behavioural section regarding the halal pharmaceutical, there are 6 response questions given by the respondent with the answer "Never" with a score of 0, "Sometimes" with a score of 1, and "always" with a score of 2. The maximum score is 6 and the minimum score is 0. Respondents are said to have good behaviour if they get a score of >75%, adequate behaviour if the score is 51-75%, and poor behaviour if the score is \leq 50% of the maximum score.

The questionnaire was content validated by 2 experts which resulted the content validation index (CVI) > 0.8, and the reliability test got Cronbach's alpha of > 0.6..

Data collection procedure

The population of this research is all people in East Jakarta sub-district who are Muslim. From the sample calculation using the Slovin's formula, a minimum sample of 399 respondents was obtained. From this research, 800 samples were collected.

Statistical analysis

Univariate analysis was conducted to obtain data on the frequency of each characteristic as well as the level of knowledge, attitudes and behaviour of the respondents. The correlation between knowledge, attitude and behaviour variables was analysed statistically using bivariate analysis with Spearman Rho test.

RESULTS AND DISCUSSION

The results obtained 800 respondents with demographic characteristics can be seen in Table 1. Based on the results obtained respondents aged 26-45 years dominated the number of respondents (49.4%) and most of the respondents were women (61.6%). Seventy-three percent of respondents have an education level of Secondary school. Of the total patients, only 25% are unemployed, 59% of respondents who work are from non-medical fields. More than 50% of respondents are married and are using regular drugs. In regard to the source of information on halal medicine, most of the respondents get their information from the internet.

Table 1. Demographic characteristics of respondents

Characteristics	Frequency (n=800)	Percentage (%)
Age (year)		
17-25	284	35.5
26-45	395	49.4
46-65	121	15.1
Gender		
Male	307	38.4
Female	493	61.6
Level of Education		
Primary school	13	1.6
Secondary school	584	73.0
University/College	203	25.4
Occupation		
Government employee	141	17.6
Private employee	195	24.4
Student	99	20.6
Self-employed	165	12.4
Un-employed	200	25.0
Field of work		
Medic	26	3.3
Non-medic	475	59.4
Un-employed	299	37.4
Marital status		
Married	448	56.0
Un-married	352	44.0
Taking regular medication		
Yes	408	51.0
No	392	49.0

Source of Information Regarding Halal Pharmaceutical		
Television	215	13.8
Internet	530	34.0
Health professional	348	22.3
Leaflet / brochure /poster	243	15.6
Social media	222	14.3

The level of knowledge, attitudes and behaviour of respondents towards halal medicine is shown in Table 2. From the Table 2 showed most respondents (77.0%) have good knowledge, 99.2% of respondents have a positive attitude towards halal pharmaceutical, and 79.8% have good behaviour towards halal pharmaceutical.

Table 2. Knowledge, attitude and behaviour of respondents towards halal pharmaceuticals

Variable	Frequency (n)	Percentage (%)
Knowledge		
Good	616	77.0
Adequate	160	20.0
Poor	24	3.0
Attitude		
Positive	794	99.2
Negative	6	0.8
Behaviour		
Good	638	79.8
Adequate	153	19.1
Poor	9	1.1


Table 3. Correlation between knowledge, attitude and behaviour variables

	<i>p-value</i>	<i>r</i>
Knowledge vs. attitude	0.135	0.052
Knowledge vs. behaviour	0.001	0.262
Attitude vs. behaviour	0.818	-0.008

Note: Spearman Rho test

Meanwhile in Table 3, it is shown that there is a significant correlation between the knowledge and behaviour of respondents regarding the halal pharmaceutical (p -value < 0.05) with a positive correlation direction. Meanwhile knowledge and behaviour as well as attitude and behaviour found had not been significantly correlated to each other (p -value >0.05).

Table 4. Respondents' responses toward knowledge questionnaire on halal pharmaceuticals

No.	Item in questionnaire	Correct n (%)	Incorrect n (%)	Not sure n (%)
1.	The definition of "halal" is allowed	792 (99.0)	5 (0.6)	3 (0.4)
2.	The definition of " <i>haram</i> " is not allowed	749 (93.6)	16 (4)	0 (0)
3.	It is forbidden for a Muslim to eat pork	785 (98.1)	14 (1.8)	1 (0.1)
4.	<i>Khamr</i> and all that intoxicants are forbidden drinks for a Muslim	719 (89.9)	52 (6.5)	29 (3.6)
5.	Here is one of the halal logos on drug packaging in Indonesia 	769 (96.1)	13 (1.6)	18 (2.3)
6.	Capsule preparations made from gelatin can be made from pork elements	436 (54.5)	103 (12.9)	261 (32.6)

7.	Drugs with preparations containing alcohol and not originating from the <i>Khamr</i> industry are <i>mubah</i> (permitted)	512 (64.0)	112 (14.0)	176 (22.0)
8.	Drugs with syrup preparations containing glycerine are <i>haram</i> unless they come from cows slaughtered in the name of Allah and in accordance with Islamic law	649 (81.1)	31 (3.9)	120 (15.0)
9.	<i>Indonesian Ulema Council</i> (MUI) allows the use of certain insulin containing pork for emergency reasons	600 (75.0)	61 (7.6)	139 (17.4)

Based on Table 4, it can be seen in question number 6 that only 54.5% know that capsules are preparations of gelatine which can be made from pork. Gelatine is an ingredient used to make capsule shells, this gelatine generally comes from cows and pigs. Islamic teachings forbid Muslims to eat pork. In question number 7 it is known that only 64.0% of respondents know that drugs with syrup preparations containing glycerine are said to be haram unless they come from animals slaughtered in the name of Allah and in accordance with Islamic law. Glycerine is a fat derivative that can come from animals (6). In the Al-Qur'an Surah Al-Baqarah it is clearly stated that Allah SWT forbids consuming an animal that is slaughtered by mentioning the name other than Allah SWT on purpose, it is a sin for him.

Table 5. Respondents' responses toward attitude questionnaire on halal pharmaceuticals

No.	Item in questionnaire	Strongly Disagree n (%)	Disagree n (%)	Neutral n (%)	Agree n (%)	Strongly agree n (%)
1.	I prefer to get drugs with the "halal" logo	41 (5.1)	32 (4)	24 (3)	325 (40.7)	378 (47.2)
2.	I prefer not to buy drugs that are recommended to me if the medicinal products do not have the "halal" logo	2 (0.25)	21 (2.6)	63 (7.9)	440 (55)	274 (34.25)
3.	I asked the seller for the halal status of the drug before buying the drug	2 (0.25)	9 (2.25)	130 (16.2)	454 (56.7)	205 (25.6)
4.	I'm more concerned about the price than the halal of the drug	94 (11.7)	281 (35.1)	182 (22.7)	193 (24.1)	50 (6.2)
5.	I feel happy if the seller provides information about the halal status of the drug that I will buy	300 (37.5)	430 (53.7)	68 (8.5)	0 (0)	2 (0.3)
6.	I am happy if there is a government policy so that drug manufacturers include the "halal" logo on halal medicinal products	3 (0.4)	2 (0.25)	53 (6.7)	420 (52.5)	322 (40.3)
7.	I will choose a drug that is more efficacious but contains haram ingredients, even though there are alternatives but they are less efficacious	193 (48.2)	283 (35.3)	139 (17.3)	145 (18.1)	40 (5)

Based on table 5, it can be seen in the statement of attitude in question number 4 that 15.0% and 5.9% of respondents who agree and strongly agree with the statement consider the price more than the halal pharmaceutical. Halal products are products that are legally required to be used by Muslims. Price is the value used as a medium of exchange given by consumers for goods and services. High prices are based on the value charged for a service or product (15). In attitude statement number 7, there are respondents who agree (17.5%) and strongly agree (8.1%) with the statement that they prefer drugs containing illicit ingredients even though alternatives are available but are less efficacious. Halal materials in the pharmaceutical sector are weighed down by several factors such as the lack of distributors of raw materials that meet halal requirements, obstacles in the management of halal pharmaceuticals in Indonesia, but consuming halal drugs is an obligation for Muslims (16).

Table 6. Respondents' responses toward behavioural questionnaire on halal pharmaceuticals

No.	Item in questionnaire	Never n (%)	Sometime n (%)	Always n (%)
1.	I will look for information related to the information of the halal of a drug before buying it	55 (6.9)	314 (39.3)	431 (53.9)
2.	I will check whether there is a "Halal" logo on the packaging before buying the medicine	29 (3.6)	319 (39.9)	452 (56.5)
3.	I will check the composition on the medicine packaging before buying medicine	68 (8.5)	247 (30.9)	485 (60.6)
4.	I will not buy drugs that have a blurry "Halal" logo	137 (17.1)	199 (24.9)	464 (58.0)
5.	I will choose natural remedies instead of having to take drugs that are not clearly halal	36 (4.5)	234 (30.4)	521 (65.1)
6.	I use medicinal products that have a halal logo	15 (1.9)	341 (42.6)	444 (55.5)

Based on Table 6, the frequency distribution on the behavioural questionnaire in number 1, the most respondents answered always looking for halal information before buying drugs, only 53.9%. In looking for halal information apart from the packaging that contains the halal logo, it can also be seen on the internet on the halalmui.org site. In statement number 2 the behaviour of respondents, most of the respondents (56.5%) answered that they always checked whether there was a halal logo or not. The use of the halal logo has been regulated by Global Halal Center (LPPOM MUI) with the provisions and how to use it, one of which is that business actors are required to add a halal logo on packaging that is easily visible with an easily readable size in order to find out the halal status after fulfilling the rules and conditions for halal certification (6).

In statement number 5, it is known that 65.1% of respondents who always choose to use natural remedies instead of consuming drugs that are not clear have the halal status. It is known that medicine is important in nurturing and healing. Some people believe that medicine is important and if it contains haram ingredients in it can be allowed to use it, but it is better to try to find healing by not violating Allah's commands (17).

In number 6 it is known that only 55.5% of respondents always use halal products. Along with the implementation of Indonesian Government Regulation No. 39 of 2021 concerning the Halal Product Assurance Agency (BPJPH) in article 141 paragraph 1 states that medicinal products must be certified halal. Therefore, it is obligatory for pharmaceutical manufacturers to produce halal-certified drugs. There are drugs currently circulating that have a halal logo. for hard drug products, the maximum time is until 2034 to have halal certification because the process is quite long (6). Therefore, there are still many respondents who do not always consume medicinal products that have a halal logo.

CONCLUSION

Based on the results of the research that has been carried out, it is concluded that the people in the East Jakarta area have good knowledge with a positive attitude and behaviour towards halal drugs. There was a significant correlation with a positive direction between the level of knowledge and behaviour. This Possibly because the respondents are from the city center, people are more exposed to information about halal products, including halal pharmaceutical.

ACKNOWLEDGEMENT

We would like to thank for all people in East Jakarta sub-district who have been willing to participate in this research.

STATEMENT OF ETHICS

This study approved by ethic committee of University of Muhammadiyah Prof. DR. HAMKA with No. 03/22.01/01438.

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