

Identifying Public Awareness of the Halal Issue of Cough Medicine Containing Alcohol

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ABSTRACT

This study aimed to identify public awareness regarding the halal status of cough medicines containing alcohol in Indonesia. Although Indonesia is the country with the largest Muslim population, many medicines in Indonesia still contain substances prohibited by Islam, such as alcohol. This research employs a qualitative approach with a literature review to explore the community's understanding and behavior toward halal-certified medicines. The findings revealed that public awareness regarding the halal status of cough medicines is relatively low. Many respondents did not consistently check for halal logos or ingredients on medicine packaging. Additionally, it is difficult to obtain clear and reliable information about the halal status of these medicines. The study concluded that increased educational and social efforts are necessary to enhance public knowledge and prioritization of halal medicines. Ensuring accessible information on halal certification is crucial for promoting the consumption of halal products, particularly in the health sector.

Keywords: *alcohol, cough medicine, halal, medical, public awareness*

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1 Introduction

State the objectives of the work and provide an adequate background. Avoiding a detailed literature survey or summary of the results. Indonesia is a country with the largest number of Muslims, with a percentage of around 80% [1]. Every Muslim must eat only halal foods and drinks that are beneficial to health, including health drugs. In the pharmaceutical industry itself, halal certification of products represents a challenge. This is due to around 90-95% of medicinal raw materials are imported from China, Korea, India, and the United States [2]. Currently, not a few medicines still contain substances that are forbidden in Islam, for

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example alcohol. Alcohol or ethanol is a raw material widely used in liquid medicine/syrup. One of them functions as a solvent and preservative in cough medicine [3].

In the health sector, the use of cough medicine containing alcohol must follow the instructions listed on the packaging of each drug. This is because alcohol entering the body will affect the concentration in the blood [4]. Excessive alcohol consumption or a blood alcohol concentration of 1.80 g/L can cause visual impairment, weakened reactions, impaired coordination, and emotional lability [5]. The age range of alcohol use in cough medicine also affects health outcomes, especially when used by newborns, who are at great risk of alcohol poisoning and chronicity [6]. In children and adults aged >12 years, the maximum alcohol concentration in the medicine is 10%, and in children <12 years and <6 years, the maximum alcohol concentration in the medicine is 5% and 0.5%, respectively [5]. Therefore, the use of alcohol in cough medicine should be considered.

Islam itself is explained in surah Al-Baqarah verse 168, which emphasizes the importance of food selection in accordance with the principles of halal and *thayyiban* [7]. Halal means what is allowed by Islamic law, while *thayyiban* means good, clean, hygienic, and healthy [3]. It is our obligation as Muslims to choose to consume halal and safe food, drinks, and medicines. In addition, it is also explained in surah Al-Maidah verse 90 regarding the act of drinking khamr, gambling, worshiping idols, and relying on luck with a game of arrows, which are actions prohibited by Allah SWT and considered actions favored by Satan [8]. Therefore, we need to avoid these actions. Rasulullah (SAW) said, "Whatever intoxicates a lot, even a little is forbidden." (HR. Abu Dawud, Tirmidhi, and Ibn Majah). Some scholars also have opinions on the use of alcohol in medicine. The majority of scholars allow the use of alcohol in medicine under certain conditions, such as if there is no other halal alternative and the use of alcohol is not in an intoxicating amount [9].

The Indonesian government has provided regulations regarding the use of alcohol in cough medicines. The MUI Fatwa, SNI, and BPOM regulations provide clear guidance on the use of alcohol in medicinal products and set certain limits. In FATWA MUI No. 40 of 2018 which reads "Drinks that include khamr are drinks that contain ethanol (C₂H₅OH) at least 0.5%." and in its production, it is prohibited to use khamr type alcohol. Meanwhile, based on SNI 99004: 2021 regarding the general requirements of halal food, it is known that specifically for beverage products, the alcohol content in the product must be less than 0.5%, and for other products, the alcohol content in the product is not limited if it does not endanger health. Furthermore, BPOM No. 29 of 2023 regarding the safety and quality requirements of natural medicines explains that the maximum permissible limit of ethyl alcohol in medicines is no greater than 1% in oral liquid dosage forms. Some consumers sometimes do not pay much attention to the ingredients in the drug, so they are often ignored. In fact, Islam itself has regulated this and it is important for consumers, especially those who are Muslims, to pay attention to it. Based on government regulations that have been established, the urgency of halal certification needs to be done. By obtaining halal certification, consumers can have confidence that the product has gone through a rigorous research process in accordance with religious teachings and safety standards set by related institutions.

The level of public knowledge about religion and the attention relevance ingredients used in products have an impact on increasing the consumption of halal products. The public perception of halal certification of medicines is expected to provide an overview of the importance of halal certification in all fields and can provide an overview to the public to be more careful when buying products, especially medicines. Therefore, the study identified public awareness of halal issues in medicines, especially cough medicines containing alcohol.

Previous research conducted by Rahem (2018) examined the alcohol content in syrup-form medications sold in pharmacies. Observations were made on 106 secondary packaging of medications, and the results showed that 8 of the total samples contained alcohol exceeding the standard limits. Ariddah et al. (2023) also studied the perceptions and attitudes of the community towards halal medications, finding that the perception of the Kedungrejo community was categorized as good at 63% and very good at 37%. This study also evaluated the community's attitudes towards halal medications using four indicators: satisfaction, positive impression, enjoyment of purchasing, and perception of halal certification, with results showing 36% of the community's attitudes were not good, while 64% were good.

Additionally, Utami and Nurkhasanah (2021) researched community perceptions of halal medication certification and the relationship between knowledge level and perception of halal medication certification. The results indicated that the better a person's knowledge level, the better their perception of halal medication certification. The difference with the current research is that previous studies did not specifically address the alcohol content in cough medicines, and there is also an update on some products that previously did not pass the MUI certification but have now been certified. The current study focuses on analyzing the alcohol content in cough medicines and the change in halal status of products after obtaining MUI certification.

2 Materials and methods

The research was conducted using a qualitative approach with a literature review. A qualitative research approach is a research method used in interpreting a phenomenon that occurs in the field and relates to opinions and, an action from a figure or institution at a certain location. This research includes qualitative research to identify public awareness of halal issues in cough medicines containing alcohol in Indonesia.

The research was conducted by distributing questionnaires with several questions related to cough medicine selection preferences and public awareness regarding the issue of cough medicines containing alcohol. Writing this research using the method for reviewing various sources such as the Al-Quran and Hadith, previous research, and supporting websites in the data.

3 Results and discussion

3.1 Results

Table 1. Characteristics of the Respondents

Characteristics	Demographic Characteristics	Percentage, %	Number of Respondents
Gender	Male	56,80%	83
	Women	43,20%	63
Total			146
Age	< 17	6,80%	10
	17 - 25	68,50%	100
	> 25	24,70%	36
Total			146
Religion	Islam	76,70%	112
	Christian	10,30%	15
	Catholic	6,80%	10
	Buddha	2,10%	3
	Hindu	2,70%	4
	Confucian	1,40%	2
Total			146

Table 2. Respondent's Cough Medicine Selection Preference

No.	Question	Answer*					
		VO/VU	O/U	QO/QU	LO/LU	NO/NU	VNO/VNU
1.	How often do you use cough medicine to treat symptoms such as cough or cold?	17,80%	25,30%	14,40%	20,50%	13%	8,90%
2.	How familiar are you with the alcohol content rules that affect the halalness of a product?	2,00%	7,70%	17,50%	16,80%	19,60%	36,40%

***Note:**

VO/VU : Very Often / Very Understand

O/U : Often / Understand

QO/QU : Quite Often / Quite Understand

LO/LU : Less Often / Less Understand

NO/NU : Not Often / Not Understand

VNO/VNU : Very Not Often / Very Not Understand

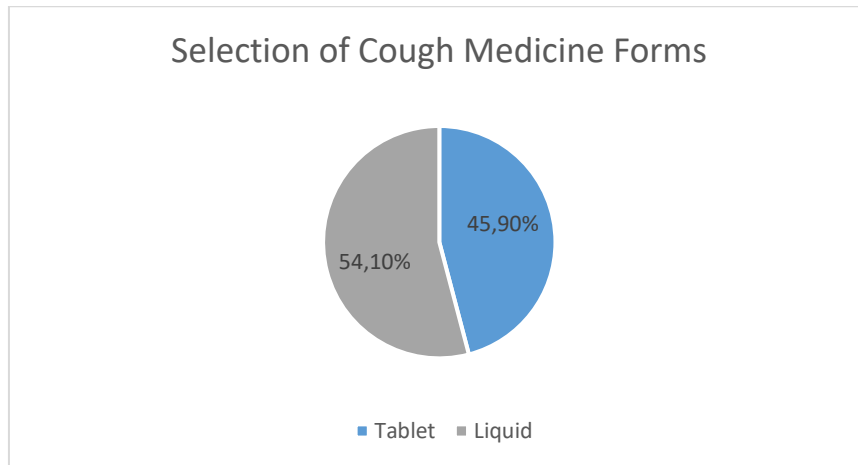


Fig. 1 Respondent’s Cough Medicine Form Selection

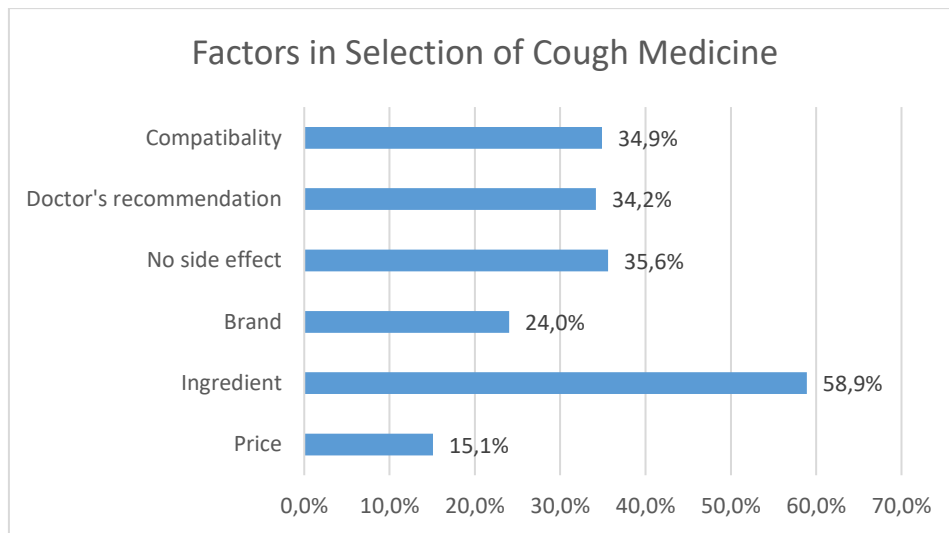


Fig. 2 Cough Medicine Selection Factors by Respondents

Table 3. Public Awareness on the Issue of Halal Cough Medicine Containing Alcohol

No.	Question	Answer*					
		VA/VI	A/I	QA/QI	LA/LI	NA/NI	VNA/VNI
1.	Do you agree that it is important to pay attention to the halal logo on the cough medicine packaging before buying it?	15,1%	11,6%	13,0%	13,7%	15,1%	31,5%
2.	How important is it to you that the cough medicine you use is halal?	35,6%	27,4%	20,5%	6,2%	6,2%	4,1%

3.	Do you pay attention or check cough medicine labels to see if they contain alcohol?	9,6%	16,4%	20,5%	15,8%	29,5%	8,1%
4.	Do you prioritise using cough medicines that do not contain alcohol?	30,1%	21,2%	34,9%	8,2%	2,1%	3,4%
5.	Have you experienced any discomfort or side effects after using cough medicine containing alcohol?	3,4%	8,9%	15,1%	19,2%	41,8%	11,6%
6.	Do you feel that information about the halalness of cough medicines is often ignored by drug manufacturers or related parties?	17,1%	54,1%	15,8%	8,2%	2,7%	2,1%
7.	Do you find it difficult to find clear and reliable information about the halalness of cough medicines containing alcohol?	50,0%	19,2%	12,3%	10,2%	4,8%	3,4%
8.	How important is it to you that government authorities regulate and supervise the sale of cough medicines to ensure their halalness?	72,6%	17,8%	6,8%	2,7%	0,0%	0,0%
9.	How important is it to you that there is increased public awareness of the issue of the halalness of cough medicines?	65,8%	19,9%	12,3%	2,1%	0,0%	0,0%

***Note:**

VA/VI : Very Agree / Very Important

A/I : Agree / Important

QA/QI : Quite Agree / Quite Important

LA/LI : Less Agree / Less Important

NA/NI : Not Agree / Not Important

VNA/VNI : Very Not Agree / Very Not Important

3.2 Discussion

3.2.1 Indonesia's Government Regulations on Alcohol in Drugs

The number of new companies entering the pharmaceutical industry is triggered by the expiration of patents for many innovative drugs and biological products. Even multinational companies are diversifying, producing generic and biosimilar drugs to take advantage of the current situation and remain competitive in the market. The increase in technological know-how in many developing countries, especially Brazil, Russia, India, China, and South Africa (the so-called 'BRICS') has propelled the business of many companies in those countries to become well-known, not only in developing countries but also in developed countries [10].

The demand for affordable and quality health care services mainly arises from consumers, who are becoming more aware of their needs. The increased understanding of health needs also leads to a high demand for medicines consumed.

Halal medicines meet the requirements of Islamic Sharia (Islamic law). However, despite their large market value and religious value of these products are still under-researched and have become an area of controversy, especially regarding the ingredients used and the manufacturing process. Most pharmaceutical products found in the market do not comply with Islamic Halal rules, and little research has been conducted in this area. Moreover, the concept of Halal in the field of medicine has not been explored and explained to students, or practitioners in the field of medicine [11].

Raja Ikram et al. (2013) stated that halal medicines that belong to a new industry with great potential for success can give benefit from the establishment of relevant regulatory guidelines. In Indonesia, halal medicines must comply with applicable government rules and regulations. The authority provides comprehensive guidance regarding the definition, process, and standards of halal medicines, which can contribute to the development of this industry [12].

The transition to a halal economy can increase the success of a country's economy. A study conducted by Mohezar et al. (2015) found, that the Halal industry in Malaysia has great potential for success due to many strength factors, such as Islamic compliance with many of its products. In addition, this study shows that Malaysia has a population growth rate that can be leveraged to advance halal medicines, halal products, and services in general [13]. This can happen in Indonesia by implementing better regulations, increasing supervision, and providing comprehensive education to the public, Indonesia can ensure that cough medicines in circulation are not only safe and high quality, but also in accordance with halal principles. These measures will increase consumer confidence and comfort when using health products.

In Indonesia, the halal status of a drug has been regulated by several government regulations such as FATWA MUI, which has provided clear guidance on what is halal and what is prohibited for use in medicines. The regulation was perfected by other regulations such as SNI and BPOM.

This study discusses halal issues in cough medicines containing alcohol. Alcohol is one of the haram ingredients consumed in Islam. FATWA MUI No. 40 of 2018 explained that drinks that are included in khamr (prohibited alcoholic beverages) contain a minimum of 0.5% ethanol

(C₂H₅OH). In addition, the MUI FATWA explained that when producing medicines, it is prohibited to use khamr type of alcohol. This regulation can be linked to the SNI 99004:2021 regulation regarding general requirements for halal food, it is known that specifically for beverage products, the alcohol content in the product must be less than 0.5%, and for other products, the alcohol content in the product is not limited if it does not harm health.

Based on SNI 99004:2021 regulations, drugs are included in other products whose alcohol content in the product is not limited if it does not harm health. However, BPOM Regulation No. 29 of 2023, regarding the safety and quality requirements of natural medicines explains that the maximum limit of ethyl alcohol allowed in drugs is no greater than 1% in the form of oral liquid preparations.

Indonesian cough medications must be halal certified in accordance with current laws, including FATWA MUI, BPOM, and SNI. This guarantees the community's access to safe and high-quality drugs while also guaranteeing that the goods ingested adhere to sharia standards. As a result, raising public knowledge of this problem is crucial if we want people to choose halal and safe items with greater care and selection.

3.2.2 Respondent Characteristics

The characteristics of the respondents provide an overview of the participants in this study. The descriptions of these characteristics are grouped by age, gender, and religion, as shown in Table 1.

In total, 146 respondents participated in the study. Based on Table 1, the gender characteristics of respondents who participated in the study were 56.8% male and 43.2% female. Putra and Podo (2017) found no relationship between gender and knowledge level. Although gender can influence perceptions, attitudes, and ethics, there is no evidence that men and women have differences in knowledge levels or cognitive abilities. Men tend to be more focused on competitive success and may ignore rules, whereas women are more task-oriented and less competitive [14].

The age characteristics of the respondents are divided into 3 parts, namely age < 17 years as much as 6.8%, range 17-25 years as much as 68.5%, and > 25 years as much as 24.7%. Age plays an important role in individual cognitive and personality development. With age, acquired experience helps increase the level of knowledge and maturity in thinking and acting. Age also affects the ability to capture information and mindset. Thus, the older a person is, the better their knowledge [15].

The present study examined the potential effect of respondents' religious traits on their attitudes on the halalness of cough treatment containing alcohol. Islam (76.7%), Christianity (10.3%), Catholicism (6.8%), Buddhism (2.1%), Hinduism (1.7%), and Confucianism (1.4%) were the respondents' respective religions. People who base their beliefs on religious doctrines are more likely to be sensitive to whether a product is halal. For instance, drinking alcohol in any form—including while taking medication—is forbidden for Muslims. Thus, despite the Food and Drug Administration's approval of cough treatments containing alcohol, those with strong religious values may be more prone to reject or doubt its halal status. People's comprehension and interpretation of their religious beliefs, as well as their devotion

to the morals and tenets of the faith, have an impact on this way of thinking. Thus, religious characteristics can be a significant factor in shaping attitudes and views on the issue of the halalness of cough medicine containing alcohol [15].

3.2.3 Preferences in the Choice of Cough Medicine

In analyzing the cough medicine selection preferences of the respondents, the questionnaire results revealed significant variations in their cough medicine usage habits, understanding of the alcohol content, the form of cough medicine chosen, and the main factors influencing their choices.

From the questions in Table 2, the results on the first question regarding how often they use cough medicine, it can be observed that most respondents (43.5%) use cough medicine quite often to very often. This indicates that the use of cough medicine is a common practice in managing cough or cold symptoms among respondents. This high frequency of use also reflects a significant level of need for cough medicine among respondents, both for daily use and for managing more severe coughs or colds.

The purpose of the second questionnaire question was to assess respondents' knowledge of the regulations governing alcohol levels that impact a product's halal status, specifically as it relates to cough medication. Most responders (56%) had a poor or very low degree of knowledge, according to the questionnaire findings. Most respondents may not have completely understood the halal implications of cough medication goods' alcohol content, based on this poor level of awareness. This might be the result of several things, including a lack of knowledge or instruction on the subject, a failure to recognize the significance of halal considerations when choosing products, or a lack of access to resources that can clearly explain the amount of alcohol in medicines [16]. Users' preferences and purchase decisions for cough medications may be impacted by this ignorance. As a result, this research emphasizes the significance of a larger and more successful information campaign regarding the restriction of the alcohol concentration in pharmaceutical products, particularly for those who are sensitive to halal considerations while choosing products. This can be accomplished in several ways, including direct counselling, readily available educational resources, and social media campaigns that emphasize the significance of having a correct understanding of the content of the items one consumes [2].

The results of the third question are presented in Figure 1. The third question explored respondents' preferences regarding type of cough medicine they prefer. From the questionnaire results, most respondents (54.1%) chose tablet-based cough medicine, while a small proportion (45.9%) chose liquid or syrup-based cough medicine. This preference may be influenced by several factors, including convenience of use, ease of dose measurement, and respondents' personal preferences related to their familiarity with taking certain types of medication. Cough medicine in tablet form may be considered more practical and easier to consume because, they are small and do not require complicated dosage measurements. In addition, tablets are also easier to store and travel with than liquid or syrup cough medicines, which usually require special bottles and precise dosage measurements [17].

On another side, some respondents may choose cough medicine in liquid or syrup form because it is easier to swallow, especially for those who have difficulty swallowing tablets or for children who prefer the better syrup flavor over the possibly bitter taste of tablets. In addition, cough medicine in liquid or syrup form can also be absorbed faster by the body than tablets, thereby providing a faster relief cough symptom. Thus, respondents' preference for the type of cough medicine they choose may be influenced by various factors, including convenience of use, ease of dosing, and personal preferences related to habitual consumption of certain types of medicine [17].

From the questionnaire results shown in Figure 2, the fourth question highlighted the main considerations for respondents in choosing cough medicine. The findings show that there are various considerations that influence the decision. The main factor that influenced respondents' choice was the ingredients in the medicine, with 58.9% of respondents choosing based on this aspect. This suggests that the decision to choose a cough medicine is heavily influenced by the active ingredients or certain components of the product. Respondents may be more likely to choose a cough medicine that contain ingredients that are considered effective in relieving their cough or cold symptoms. In addition, compatibility with personal needs is also an important factor in choosing cough medicine, with 34.9% of respondents responding so. Individual preferences, such as preference for the form of the medicine, preference for the flavor, or preference for a particular brand, may influence the choice of a cough medicine that suits their personal needs and wants [13].

Recommendations from doctors also had a significant influence, with 34.2% of respondents choosing them based on medical recommendations. This result shows that respondents tend to trust the advice of health care professionals when choosing the appropriate cough medicine for their condition. On the other hand, the price factor of cough medicine seems to have less impact on influencing respondents' decisions, affecting only a small proportion of them (15.1%). This suggests that price is not a major determining factor in the choice of cough medicine for most respondents [18].

From the results of the questionnaire, it can be concluded that the cough medicine selection preferences of the respondents were highly influenced by a variety of complex factors. First, most respondents tended to use cough medicine with varying frequency, indicating a significant need for cough medicine when managing cough or cold symptoms. However, respondents' understanding of alcohol content rules that affect halalness of product is still relatively low, highlighting the importance of increased awareness and education on this aspect [16].

Overall, the results of this questionnaire provide great insight into the preferences and considerations behind respondents' cough medicine choices. This demonstrates the complexity of consumer decision-making regarding health products and demonstrates the importance of better understanding how to design marketing and education strategies that match consumer needs and preferences.

3.2.4 Public Awareness Regarding the Halal Potential of Cough Medicines Containing Alcohol

Awareness refers to a person's psychological state regarding their impact on themselves. In this case, awareness enables people to understand the effects of a drug, recognize potential side effects, and control drug use more effectively. By having such awareness, one can optimize drug use, reduce the risk of adverse effects, and improve mental and physical health.

Based on the data in Table 3, questions numbered 1-9 are presented regarding public awareness of the issue of halal cough medicine containing alcohol. The halal logo is a symbol bound by Badan Penyelenggara Jaminan Produk Halal (BPJPH) of Kementerian Agama (KEMENAG) to ensure that a product has fulfilled halal requirements, has been tested, and declared halal. The use of a halal label, as shown in Figure 3. is mandatory for business actors who have received a halal certificate and maintain the halalness of the product. In addition, the public can use the halal label as a guarantee of product halalness and ensure security, safety, certainty, and security. Based on question number 1 in Table 3, 31.5% of respondents answered that they did not pay attention to the halal logo to medicine packaging. Attention to the importance of paying attention to halal logo before buying a product needs to be improved. This result is inversely proportional to question 2, in which respondents considered that consuming halal cough medicine is very important. This shows that respondents were aware of the importance of halal medicine but rarely paid attention to the logo or the packaging. In fact, consuming products with a halal logo provides assurance to consumers that the product has fulfilled halal requirements, as Muslims are commanded to consume halal foods and drinks.



Fig. 3 Halal Indonesia Logo [19].

One of the critical aspects of halalness in cough medicine is the presence of alcohol. In Islam, drinking alcohol in the form of khamr is not allowed. The use of cough medicine

containing alcohol must follow the instructions listed on the packaging of each drug because alcohol that enters the body will affect its blood concentration [4]. Based on the questions in Table 3, 29.5% of respondents did not frequently check the cough medicine labels. In fact, 34.9% of respondents prioritized the use of cough medicine that does not contain alcohol. This indicates that respondents prefer cough medicine that does not contain alcohol, it is just that most of them do not often check the amount of alcohol in each cough medicine they consume. Another reason is that 41.8% of respondents did not experience any discomfort or side effects after taking cough medicine containing alcohol.

Information related to the halal status of cough medicines needs to be promoted both by the public and drug manufacturers themselves. A total of 54.1% of respondents stated that they

concur with the neglect of such information. As many as 50% of respondents also found it very difficult to find clear and reliable information about cough medicine containing alcohol. In this case, the role of the government is critical in regulating and supervising the sale of cough medicine and ensuring its height. Information regarding whether a product is Halal certified can be checked through the BPJPH website at halal.go.id.

From question number 9, respondents answered “agree/important” by 100%. This shows that respondents have a good desire regarding education or things that are socialized about the issue of halal cough medicine. The positive response from respondents needs to be accompanied by the government's attitude toward addressing issues related to the halality of cough medicine.

3.2.5 Challenges and Obstacles in Halal Cough Treatment

The limited availability of halal raw materials is a major obstacle to the production of halal cough medicine in Indonesia. Some ingredients come from overseas, and not all of them have halal certification recognized by the Indonesian government. Cough medicine manufacturers must ensure that their entire supply chain meets strict halal standards because the certification process is time-consuming and costly. In addition, it is important to ensure that the technology used to produce and process raw materials does not contaminate nonhalal ingredients, which may lead to an unhealthy final product.

The complicated regulations and procedures associated with halal certification are an additional challenge. Although the halal certification system is regulated by the Indonesian government through the Halal Product Guarantee Agency (BPJPH), the process is often difficult and time-consuming. Manufacturers of halal cough medicine may need to go through various rigorous verification and audit processes. In addition, another obstacle is the low public awareness of the importance of halal products. Many customers do not understand the benefits and requirements of halal cough medicine, resulting in less demand. Manufacturers of halal cough medicine should conduct intensive education and socialization to increase awareness and demand for the medicine in Indonesia.

3.2.6 A Case Study: Safety and Halal Analysis of Cough Medicine Circulating in the Market

To understand the dynamics of cough medicine product certification in Indonesia, we analyzed 30 products currently available in the market. Based on the acquired data, it seems that most items have cleared the Food and Drug Administration's (BPOM) evaluation procedure; 28 products were able to pass the examination and get a license to be distributed. The fact that 2 goods out of the total did not fulfil the BPOM criteria, indicating flaws or non-compliance with relevant rules, was an intriguing discovery.

The products' halal status was then investigated, as this is a top concern for most Indonesian buyers. Out of the thirty products that we examined, only twenty have been certified halal by the Indonesian Ulema Council (MUI), with the remaining ten products failing to meet the halal requirements. This demonstrates that to meet the demands of Muslim customers, further evaluation of a product's halal elements is still required, even after BPOM has deemed it to be safe and of good quality.

Of the 28 products that have been declared safe by BPOM, there are 8 products that have not met the halal standards set by MUI. This may be due to differences in criteria and evaluation processes between BPOM and MUI [1]. For instance, a product's contents or additions might not always adhere to MUI's halal requirements even though BPOM has approved them for safe usage. For instance, a product might have additives or components that BPOM has certified for usage safely, yet it might not always adhere to MUI's halal requirements. This highlights the need for better coordination between regulatory agencies to ensure that products authorized by BPOM also meet MUI's halal criteria so, that consumers can trust the safety and halalness of the products they consume [20].

Meanwhile, the existence of two products that did not pass both the BPOM and MUI criteria raises serious concerns regarding consumer safety and compliance with applicable standards. The possible causes of these non-passes vary widely, ranging from errors in product formulation to problems in the production process that does not comply with applicable regulations. This highlights the importance of strict enforcement of standards in the manufacturing and distribution of cough medicine products, as well as the need for stricter supervision by authorities to prevent unsafe or non-halal products from circulating in the market [1].

Overall, these findings illustrate the complexity of the certification process for cough medicine products in Indonesia. More serious efforts are needed on the part of manufacturers, regulatory authorities, and halal certification bodies to ensure that products in circulation are not only safe and of good quality but also fulfill, the halal requirements expected by Muslim consumers in Indonesia.

To improve compliance with BPOM and MUI standards in the future, manufacturers must increase their awareness and understanding of the requirements required to obtain both certifications. In addition, collaboration between BPOM and MUI should also be enhanced to strengthen product evaluation and ensure that every product issued meets the set safety and halal standards. This will help reduce risks for consumers and increase their trust in cough medicine products on the market.

The paragraph provides a comprehensive analysis of the certification process for cough medicine products in Indonesia, focusing on the evaluation by the Food and Drug.

Administration (BPOM) and the halal certification by the Indonesian Ulema Council (MUI). It highlights the discrepancy between BPOM and MUI standards, noting that while most products are deemed safe by BPOM, not all meet MUI's halal requirements. This discrepancy underscores the need for better coordination between regulatory agencies to ensure products meet both safety and halal standards, emphasizing the importance of consumer trust and the enforcement of manufacturing standards.

To address this issue, several key measures should be implemented. First, enhance coordination and communication between BPOM and MUI to align their evaluation criteria and streamline the certification process. Second, increase awareness among manufacturers about the specific requirements and standards set by both BPOM and MUI. Third, strengthen enforcement mechanisms to ensure that products in the market comply with both safety and

halal standards. Finally, conduct public awareness campaigns to educate consumers about the importance of certifications and what they signify in terms of product safety and halal compliance.

4 Conclusion

This study investigated public awareness of the halal status of cough medicines containing alcohol in Indonesia, the world's largest Muslim-majority country. Despite Muslims' religious obligation to consume only halal products, the findings reveal a significant lack of public knowledge and inconsistent behaviour regarding halal certification of medicinal products. Many people do not regularly check for halal logos or ingredient lists on medicine packaging, and there is difficulty in accessing clear, reliable information about the halal status of certain medicines.

The findings highlight the need for increased educational initiatives to inform the public about the importance of halal certification for health products. Additionally, improving the accessibility and reliability of information on the halal status of medicines is crucial. The study concludes that enhanced educational and socialization efforts are essential to increase public awareness and prioritization of halal medicines, ensuring alignment of health practices with religious principles and safeguarding the well-being of the Muslim population in Indonesia. Future research contributions in this area should focus on developing effective educational and socialization strategies informed and health-conscious society. This research not only highlights current gaps but also paves the way for further investigations into the intersection of health, religion, and public policy. to increase public knowledge and prioritization of halal medicines, thereby fostering a more

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