

Original Article

DO CURRENT AWARENESS AND EDUCATIONAL PROGRAM TOWARDS UNREGISTERED DRUGS EFFECTIVE FOR PUBLIC? PHARMACISTS' PERCEPTIVE

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ABSTRACT

Objective: Awareness and educational programme are one of the solutions to reduce unregistered drugs usage. In Malaysia, an agency called Pharmaceutical Services Division (PSD) and Pharmacy Enforcement Division (PED) are highly active in yielding many awareness programmes throughout the country as well as in its website. The goal of this research was to explore the pharmacist views or perceptions on the current awareness and educational programme on registered drugs.

Methods: These findings emerged from one-on-one semi-structured interview guided with sixteen pharmacists in Klang Valley who have represented the voice from the pharmacists throughout Malaysia.

Results: Six themes identified: 'Consumer utility', 'low health literacy', 'social and education influenced', 'equitable access to information', 'promotion' and 'persistent'. These themes emphasise the current awareness to improve and provide the programme to everyone in Malaysia to get the same information regardless they're staying. Pharmacists also expressed their concern about the current consumer who only cares about their benefit such as fast effect; cheap and easy to get by ignoring the bad impact if they consume the unregistered products. The pharmacists also believed that the health literacy, the social and educational level also influenced the purchase behaviour amongst consumer.

Conclusion: The findings indicate that the management of unregistered drugs needs to involve every organisation. Future research could develop a particular measure and score on awareness and knowledge amongst public on this issue. This test can be used as the indicator to evaluate the outcome of the future knowledge programmed.

Keywords: Unregistered drugs, Awareness and educational programme, Pharmacist, Public, Perspectives

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INTRODUCTION

Worldwide cannot be immune to the counterfeit drugs or known as unregistered drugs industry. There are many solutions to overcome this problem, and one of the World Health Organization (WHO) suggestions is the established the awareness and educational programme to consumer and health care provider. There is limited research to explore the effectiveness of the current awareness programme on registered drugs. Past research on counterfeit drugs management has mainly focused on consumers' demands [1-11]. These studies generally investigate the consumer's demand such as the criteria and the products. There are few qualitative studies which look in-depth on current awareness and educational programme towards registered drugs. The lacking from the literature is a broad understanding of professional's perception especially pharmacist towards this matter.

Food Drug Administration (FDA), responsible for producing information for the public on counterfeit drugs via the website [12]. Meanwhile, in Malaysia, an agency called Pharmaceutical Services Division (PSD) and Pharmacy Enforcement Division (PED) are highly active in yielding many awareness programmes throughout the country as well as in its website. One of the campaigns was "Know Your Medicines". This campaign was held to ensure that, the public are aware and responsible for types of medications they consumed and purchased [13]. Also, there is the sub campaign known as 'Choose Registered Drugs'. This sub-campaign is expressly about registered drugs and related information. The information in the campaign is about registered drugs' characteristics, cosmetics identification, advertisements and the internet, adulterated food products and information references. The government has placed their effort to educate and provide necessary information to the public regarding health and drug-related issues.

The awareness and educational programme need the high investment to promote and provide the proper and efficient plan to the public. We would never know the effectiveness the lack surrounding the programme; even we think it is enough for the public [14]. Therefore, to ensure the public get the information and understood or well educated on the registered drugs, the view and perception from pharmacists as a person who organise the campaign and giving awareness to the public is crucial to ensure the effectiveness of the current awareness programme that was done by the government. An understanding of the other factors or issues from the on-going awareness programme would be helpful to the PSD and PED to improve by targeting the specific information or objective in the awareness programme that needs to achieve. This paper showed gaps in the literature by investigating the following:

- Why public still buy unregistered drugs in Malaysia although there is currently awareness campaign throughout Malaysia?
- What are the current awareness and educational programme performance?
- How can this awareness and educational programme be to improved and be targeted to reduce unregistered drugs purchases amongst public?

The goal of this research is to help PSD and PED organise strategies and strengthen the awareness and educational programme to give information to all public in this country.

MATERIALS AND METHODS

Methods

In this study, the researcher used one-on-one semi-structured interview guided with sixteen knowledgeable and experienced

pharmacists with different field experienced (Enforcement Pharmacist, Community Pharmacist, Hospital Pharmacist) in Klang Valley who represented as the voice from the pharmacists in Malaysia. Most of the qualitative method study claims that the sample size depends on the saturation of the data collection. In this study, the sample size of the qualitative study, citing other studies that have similar study design to support the sample size that the researcher wanted to use. The sample size of the pharmacists was referred to the study conducted by [15], in which the selected

participants had the same profession. In that study, the sample size consisted of 11 pharmacists, whereas in this study, the sample size consisted of 16 pharmacists.

The in-depth interviews were used that encouraged participants to display their understandings and meanings and permitted themes. The participants given the same set of questions for the interview (table 1) to reduce the variation. The probes are added during the talked session to let the participant well expressed their perceptions and views.

Table 1: Semi-structured Interview guided

Interview questions	Areas addressed by primary question
1) What do you think of the current awareness and educational program of registered drugs?	Perception of the current awareness and educational program of registered drugs
2) How to improve the current awareness and educational program?	Views in improvement current awareness and educational program

Permission was granted from the directors of the research departments to conduct this research. All the participants signed the consent letters after the purpose of the study was clearly explained to them, as well as being informed about the official permission from the relevant authority. This study took place in Klang Valley, upon ethics approval by the University Technology MARA Committee on Ethics in Research Development (ref no: 600-FF (PT.9/19)). Interviews were conducted in English or Malay language were audiotaped and transcribed verbatim. Analysis followed the principle of the constant comparative method whereby the hard copy of the transcript was read multiple times to facilitate familiarity and identify themes. Data analysis occurred concurrently with data collection so that the researchers could generate an emerging understanding about research questions, which in turn informed both the sampling and the questions asked. This iterative process of data collection and analysis eventually led to a point in the data collection where no new categories or themes emerged, or in other words, saturation of the themes was reached.

RESULTS

About 56% (n: 9) of participants believed that the programme is improving, and 44% (n: 7) of participants believed that current awareness programme is not enough and need improvement. Most of the participants believed that the best tools for educating people about the dangers of unregistered drugs are television followed by Facebook (social media) and the internet.

The majority of participants, 75% (n: 12) also believed by raising awareness about the bad impact of unregistered drugs may discourage public purchased unregistered drugs. Two categorical themes identified: Factor that influenced public purchased behaviour; (Sub-themes: 'low health literacy', 'consumer utility', 'social and education influenced') and the improvement of current awareness program (Sub-themes: 'promotion' 'equitable to information', and 'persistent') (table 2).

Table 2: Categorization and themes in the data for the current awareness and educational program

Factor that influenced public purchased behaviour	The improvement of current awareness program
Low health literacy	Promotion
Consumer utility	Equitable access to information
Social and education influenced	Persistent

The majority of the pharmacists believed that health literacy is the most important aspect of developing a good sense of understanding of unregistered drugs in consumers. The pharmacists believed that low health literacy would influence the public to purchase unregistered drugs.

Factor that influenced public purchased behaviour

Most of the pharmacists believed that PSD and PED had provided the real awareness and educational programme and intensively produce the events not only in the rural area but also in the urban. They also claimed that the current awareness programme is improving because the syllabus was upgraded to the school and university version. The issue arises when there are still demands from the public in this country. There are three sub-themes under this category that identified from the interviewed session.

I) Low health literacy

The majority of the pharmacists believed that most of the consumer if knowing about the unregistered drugs or attend the educational programmed there must be a group of the user who do not care about the information given to them. They are still buying the unregistered drugs although they already know the information presented to them.

"Education may more at 80%. Means, 80% would probably participate, and 20% probably will not participate. There is because not everyone will hear the information given to them. Indeed, there are

few who would not participate" (ID-2, Enforcement Pharmacist, Female).

From the findings, pharmacists believed if consumers know well about the bad impact of consuming the unregistered drugs it will give a different perspective to them.☐

"Knowledge is very powerful. If they know, that unregistered drugs can give disadvantages, in term of safety or efficacy. For sure they will not take it. If we can explain to them the main harmful of the unregistered drugs, they will understand" (ID-11, Community Pharmacist, Female).

The cases or example of consumers experienced the harmful impact after consumed the unregistered drugs can give awareness or a scary momentum to the public to be more aware before buying any health products.

"Giving the knowledge still not enough because they cannot see the products could cause the harm. So, probably we should show them a lot of cases were all the harm after using unregistered drugs" (ID-13, Hospital Pharmacists, Male).

Despite, most of the pharmacist believed that the necessary to increase the health literacy amongst the public is to emphasise their curiosity before they want to buy any health products or cosmetics.

"As a consumer, we want the best products, if the product has a problem, we surely no one will buy, and have feelings of doubt. The sense of uncertainty is enough for the consumer to be more consciously

before they want to buy any health products" (ID-9, Hospital Pharmacists, Male).

II) Consumers' utility

The pharmacists believed that public assume that anything that sold in this country is safe to be used. Furthermore, they also think that the authorities already did the inspection and screening for all health products before being sold into the market.

"They thought all drugs sold in the market can be used" (ID-4, Enforcement Pharmacists, Female)

Most of the pharmacists also believe there are some consumers that know the product that they consumed is unregistered drugs but still used it. They thought that the products that they consumed do not cause any harm because they are well after consumed it.

"As long as they are not affected, they will not believe" (ID-2, Enforcement Pharmacist, Male).

Most of the pharmacists believed many public are not sure the information that we give to them because they do not experience the immediate adverse effects. Therefore, the pharmacist believed by providing the information to the public, pharmacists or health care provider need to convince them while counselled that the bad impact is genuine and will give immediate adverse effect or long term effect.

"People are believed or not believed because people do not see the immediate adverse effects. But maybe it depends on whom you talk. If we managed to convince, it might be. We just said in general that the drugs are not registered have adverse effects, because not all drugs have the same adverse effects" (ID-5, Enforcement Pharmacist, Female).

Most of the pharmacist believed that consumers like to buy products through online because it is more easy, fast and practical to them.

"The others were all going easy way" (ID-16, Community Pharmacist, Female).

This statement is a bit odd because this statement from a pharmacist. She confessed that she also bought unregistered drugs because she is desperate to be healthy. Moreover, she also trusts the practitioner who prescribed the medicines.

"...because I am myself buying unregistered drugs. Haha... Because I was desperate and I also trust the practitioner when they prescribed the unregistered products" (ID-13, Hospital Pharmacist, Female).

III) Social and education influenced

Some of the pharmacists believed the social and education is one of the factors that contributed to the public purchased. But, there are many other factors those authorities, PSD and PED to take note and provide the strategies to overcome it.

"The financial factor, the level of education and many factors that can be influenced if only one factor resolved, but other factors are still able to contribute towards it; we might have to make the solution on the issue" (ID-14, Community Pharmacist, Female).

The findings also believed that if the person has education, they might have awareness and desired to seek for the help or information towards some particular issues.

"It has several stages. If they have the high level of education, they might have a sense of awareness" (ID-3, Enforcement Pharmacist, Male).

The social influences have many factors such as dignity. People who want to protect their dignity they would become desperate to solve their health problem. They would do anything although it would cause harm to them.

"Under normal circumstances, if we provide education, may increase awareness. But in desperation, they will not think clearly. For example, she was pregnant out of wedlock; she would not think of good and bad. There is in Facebook selling medication for abortion, so she just buy

drugs and used it. She wants to keep it private. Or there's another one; a man has the sexual problem. He is ashamed to go to clinics and some friends talking about the unregistered drugs that can buy through online. He is desperate, so he just buys the product through online" (ID-2, Enforcement Pharmacist, Female).

The improvement of current awareness programme

Most of the pharmacists believed that current awareness and educational programme need improvement because still not enough to spread the information throughout the country. The issue arises when there are still many people did not know about registered drugs. There are three sub-themes under this category that identified from the interviewed session.

I) Promotion

The majority of the pharmacists believed that promotion is the best strategies to spread the information. The effective promotional method should become a continuous activity and designed to be more strategic so that it can be continuously used as repeat exposure to the consumers.

"Malaysian people like entertainment and sports. If the sport we printed mineral bottles, hat, t-shirt and etc. Or maybe we can make a CD distributed to the public". (ID-2, Enforcement Pharmacist, Female).

Most of the pharmacists believed that the strategies of promotion need to be more creative and assessable to the audience.

"Maybe, for the ads on TV, the advertisements quality such as Petronas as it is distressingly giving impact to the public. If we, as pharmacists, can produce such the ad, it can raise awareness. Advertising on TV, as well as YouTube or health oriented government websites, can be linked" (ID-9, Hospital Pharmacist, Male).

Moreover, pharmacists also believed the lack of manpower made the activities of awareness program ineffectively to be implemented. Therefore, the promotion by fostering the community is one of the solutions to solve this problem.

"We were not able to do in person, so, perhaps it is better to engage the community. The communities we apply adequate knowledge about those products are not registered. So, they seem to be ambassadors for us to convey to friends and relatives to the village. I think it is better this way. Maybe we take a lift to the village; then we educate properly. Like word of mouth, marketing plagues it. We use such a concept" (ID-5, Enforcement Pharmacist, Female).

II) Equitable access to information

Most of the pharmacist believed that the information from the awareness programme needs to be spread to all people in all area and from different social demographic criteria.

"There should be emphasising to all people no matter at the urban, rural, children and even adults". (ID-1, Enforcement Pharmacist, Female).

The pharmacists also believed the awareness programme need to organise to the national level. Meaning if the programme is national wide it can cover a broad range of people.

"However, the magnitude of the campaign, still in the small scale. We have never held a massive campaign. The campaign is only on level Health Department and for the districts. We never had a campaign of Malaysia, which was held in Putrajaya". (ID-9, Hospital Pharmacist, Male).

This enforcement pharmacist believed that all the activities they already were done but if the demand from the people still exist it's hard to solve this matter. They believed that the current awareness programmed needs to get the target population (consumer who demand these products).

"We have not come up with our target groups. We have done. For example, exhibitions and so on, but that is still unregistered drugs. This is because the demand is still there". (ID-3, Enforcement Pharmacist, Female).

Most of the pharmacist believed to manage the awareness programme is time-consuming because of the lack manpower. It is very difficult to manage these issues although the pharmacists know that the information needs to cover all the population they are struggling to achieved the aim.

"We are a small group that needs to handle the very large group. So, it may take some time. We cannot cover all, or cover a particular group; then that team will have begun to forget when we include other groups as well. Perhaps, we include the group about different issues, but after that, there was another issue. So, this is an issue that we face providing information to each group in the future". (ID-5, Enforcement Pharmacist, Female).

III) Persistent

The persistent of the events is important because the majority of the pharmacists believed that the awareness programme needs to increase the frequency of the event.

"Just the frequency of the event need to be frequent in the future" (ID-11, Hospital Pharmacist, Female).

The awareness programme also needs to be continuously. Most of the pharmacists believed that current awareness programme is more seasonal events rather than the routine events.

"My suggestion provides the function continually not only for the particular event. Many now seasonal reasons when there is a new activity is done in certain segments of society. The ad might need continuous". (ID-8, Hospital Pharmacist, Female).

Most of the pharmacists believed that to have the consistent and continuously awareness programme; the budget is imperative to create the impact and effective awareness program.

"At the moment with more money, we can go all out, not only we can go programme personally, but we also can made long-term plan, the internet, and give us more freedom and using our creativity to create our programme. Of course, the budget is vital. If we have money we can do a lot of things". (ID-11, Community Pharmacist, Female).

DISCUSSION

The awareness and educational programme on registered drugs are one of the WHO suggestions to combat counterfeit drugs. The development of this programme needs investment to produce the active programme. By exploring pharmacist's perception towards current awareness and educational programme of registered drugs in Malaysia, we identified various themes that related to this matter. These themes can be explained by learning under psychological factors. The learning process occurs through action and therefore when consumers act, they learn. It implies a change in the behaviour as a result of the experience. The learning or lesson will change the behaviour of an individual as they acquire information and experience. The findings have also suggested that with the increment of knowledge, consumer's health literacy will also increase. This will thus increase the public's health literacy level in the long run.

From the findings, low health literacy appeared to be most factors that contribute to the public purchased the unregistered drugs. The health literacy is defined as the degree to which individuals have the capacity to obtain process and understand basic health information needed to make appropriate health decisions and services needed to prevent or treat illness. The findings suggested that with the increment of knowledge, consumer's health literacy will also increase. While the public attends the awareness programme if their health literacy is in the low level, they would still buy the unregistered drugs. The low health literacy is due to the weak of understanding to understand the harmful impact of unregistered drugs and low level of curiosity before buy any health products.

The consumers' utility is when consumers are assumed to make choices, especially concerning the purchase of health products, such that they obtain the highest possible standard of satisfaction. The level of satisfaction is varied because it depends on the products that they want to buy [16]. In this research, the consumers' utility is

negatively referring to the consumers' belief that anything that been sold in Malaysia markets are safe to be used as long as the products is not selling illegally. Also, the consumers' utility also due to the satisfaction of the consumers after they used the products, they had good experienced such as fast recover and cured of the diseases. Moreover, they do not experience any harmful impact from the unregistered drugs at all. Furthermore, based on experienced pharmacists, they believed Malaysian consumers do more concern to be fast cured rather knowing the side effects of the health products. Consumers become desperate to be healthy and they thought the products can cure their diseases and this behaviour is regardless their level of educations as long as they achieved their satisfaction.

Most of the studies stated that high level of education can increase awareness of the person on the particular issues [17]. But again, if it is related with the social influenced there is much aspect that needs to be considered. In this research, people will do anything to protect their dignity from other people knowing their weakness. The abortion and sexual problem are the examples of the situation that usually people will try to be private because it is related to the dignity and consumer would become desperate.

When it comes to improving the current awareness and educational programme, our data may provide suggestions to the improvement of the programme. The main themes appeared, which is promotion seems to be the benefit to having different idea and approach in giving awareness to the public. But again, the manpower is necessary to have the well-managed promotion [18]. The collaboration with the community leader can be representative of pharmacists or health care provider by giving awareness for their population.

Moreover, the equitable access to information for all population mostly is the aim of any awareness and educational programme. The findings showed that the national event is the must to increase the equitable access to information for the registered drugs. Also, the pharmacists believed the best tool for Malaysian population is television. They believed that if the information by television, many people could get the information regardless their social demographic characteristics. The main issue is to identify the target population. The target population is the consumers who demand the unregistered drugs. This population is authorities' aims to find and finally educate and giving awareness to them on registered drugs. Furthermore, it is paramount to find them and convince them not to consume unregistered drugs.

The persistence is crucial to provide continuously and the update information to the public. The main issue to make this become reality is the budget. The continuous programme needs sponsor or allocation from the government or any non-government organisations. Future research could develop a particular measure and score on awareness and knowledge amongst public on this issue. This measure can be used as the indicator to evaluate the outcome of the future awareness programmed.

CONCLUSION

All of the themes are the main issues that PSD and PED need to create the strategies to manage these problems. The majority of the pharmacists believed that these factors can overcome if we can focus to made consumers understand the bad impact or adverse effects of the unregistered drugs. The enhancement of this scope would enhance the awareness of consumers in the future. Also, the authorities need to be more concern to improve the health literacy amongst the Malaysian consumer on registered drugs. Moreover, this qualitative research identified the suggestions concerning the professionals' view that provide improvement idea for the current awareness programme and identified the factor that influenced the purchase behaviour amongst Malaysia consumer. The limited studies have conducted in Malaysia by exploring pharmacists' perceptions; the present study provides information from which policy makers can benefit.

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CONFLICT OF INTERESTS

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