

Community Perception on the Use of Over the Counter (OTC) Medications in Malaysia

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Abstract—Over the counter (OTC) medications use for self medication is progressively increasing, but such medications are also liable for abuse and misuse. The aim of this study is to determine community views on use of OTC medicines. A cross-sectional study design was used to achieve the objectives of the study. Data were collected using a survey administered to 1000 members of the public in 5 different states of Malaysia. Data were coded and entered into a custom designed SPSS© database for statistical analysis. Majority of the participants (60.4%) did not take regular prescription medications. Those without any long term illness, health problem or disability (60.4%) were the ones who took prescription medication regularly. Almost half of the participants (40.8%) reported visiting the community pharmacy less than monthly and 30.3% reported that a pharmacist influenced their choice of medication being purchased. The general public in Malaysia is highly aware that non-prescription medications could be abused. This survey discovered that the general public had a high level of awareness of the abuse potential of OTC medications and that pharmacist's recommendation influenced their choice. This indicates that in case of inappropriate OTC drug use management, a pharmacist should be given a more significant role to play.

Index Terms— Non-prescription medicines, over the counter drugs, public opinion, survey.

1 INTRODUCTION

Over the counter (OTC) medications are drugs which have been found to be safe and appropriate for use without the supervision of a health care professional such as a physician, and they can be purchased by consumers without a prescription [1].

In Malaysia, OTC drugs are classified as Group C poison as per the Poisons Act 1952. Under this act, the sale of Group C poisons must be recorded in a prescription book [2], which includes the date on which the sale was made, the name of the poison sold, its active ingredients and the name and address of the person who bought the poison. Failing to do so, there will be a penalty for illegal sale, which is a maximum fine of RM5, 000 or two years' jail or both. Also, all drugs in a pharmaceutical dosage form must be registered with The Drug Control Authority (DCA) prior to being manufactured, imported, sold or supplied. This is to ensure that products meet strict evaluation standards before obtaining a license. All registered products for distribution and sale in Malaysia must also carry the words "dilulus oleh Kemeterian Kesihatan" or "dilulus oleh KKM" on the immediate label to help consumers identify which products are registered with Malaysia's DCA. In addition, registration holders are also encouraged to print the DCA holographic logo on the label for easier identification.

Self-medicating in Malaysia has remained more popular than before and will continue to rise with the rising healthcare

costs. Consumers are slowly becoming more informed about OTC healthcare products, and this should lead to a further rise in self-medication. Furthermore, with increasing availability of non-prescription medicines, patients may be encouraged to believe that there is a drug treatment for every ailment. The use of OTC products may also delay or mask the diagnosis of serious illness, with increased risk of interactions and adverse reactions and of self-treatment being undertaken when medical aid should have been sought. There is also the potential for misuse of such products.

Prior to this study, no data had been available on the general public's perceptions and use of OTC medications in Malaysia. Therefore, this study sought to elicit the opinions of the public regarding OTC medicines generally and explore views around potential misuse. By determining the current level of knowledge and experience of Malaysians, areas where education about OTC use is most needed can be identified. With regard to this public perception about the use of OTC medication is crucial to develop and target appropriate educational interventions.

2. METHODS

2.1 Sample population

Members of the general public who appeared to be over 18 years of age were randomly approached by the researcher and asked to participate in the survey regardless of ethnics, occupations and social status. Inclusion criteria required the

respondent to be literate and have purchased an OTC product before. The participants were informed that the questionnaire is about 'over the counter' medications and the researchers wore ID that identified him or her as a researcher from La Trobe University. The researcher explained the objectives and procedure of the study to the potential respondent. Participants were required to answer and complete the questionnaire on the spot.

This survey was conducted in randomly selected pharmacies within each of the 5 different states of Malaysia (Penang, Perak, Kuala Lumpur, Selangor and Pahang), which were representative of different geographical areas within Malaysia. The study took place between August and January 2011 (five months), with one month being spent in each state. This ensured that interviewers visited each state on different weekdays (including weekends) thus encountering a wide cross-section of the community. Sample size was determined as 1000 respondents using the Krejcie and Morgan table.

2.2 Research design

A cross-sectional study was conducted using a structured questionnaire technique. The questionnaire consisted of 34 questions of preformulated responses. The questionnaire was read by five pharmacy academics for clarity, face validity and to remove any ambiguities. A pilot study was conducted to test the feasibility of the research methodology and to ensure that the questionnaire was adequately formulated to gather all the information required. It was then piloted in a small sample of the general public ($n = 20$); these data were not included in the analysis. Problems encountered during the pilot study were resolved and the questionnaire modified accordingly before commencement of the main study.

2.3 Questionnaire and data analysis

The questionnaire comprised of four sections: (a) patient contact with pharmacies; (b) general attitudes towards the use of OTC medicines; (c) views on the safety, potency and effectiveness of OTC drugs; and (d) knowledge and opinion on misuse and abuse of OTC medications.

Demographic data for each respondent were collected to assist with data interpretation and analysis. The raw data was entered onto Microsoft Excel spreadsheet verbatim, and then

specific coding was used to allow the data to be analyzed by SPSS for Windows, version 11, for statistical analysis. Data entry consistency was achieved by having a single data entrant, and SPSS was used to check if any data were missing. There were no missing data.

3. RESULTS

3.1 Demographics

Of the 1000 members of the public interviewed, 40.4% were male and 59.6% were female. Most of them were within the age range of 18-25 (33.7%).

3.2 Health

Four out of five (81.2%) of the participants said their health is good, very good or excellent. The most important association with the use of prescribed drugs is the presence or absence of a long-term illness, health problem or disability. More than half of the participants did not take regular prescription medications (60.4%).

Surprisingly, those who took regular prescription medications were the ones without any long term illness, health problem or disability (58.2%). Those who had no injuries in the previous six months were also the ones who took regular prescription medications (63.1%) compared to those with injuries.

3.3 Patient contact with pharmacies

Almost half of the participants (48.0%) reported visiting the community pharmacy less than monthly. Females and those within the age group of 18-25 years, visited community pharmacies on a more regular basis compared to males or those within the other age groups ($P < 0.001$). Almost one-third (31%) of the participants reported buying prescription medicines as shown in Figure 1. More than half of the population (57.0%) did not use the same pharmacy as shown in Figure 2, with the main reason being because they were obtaining a non prescription medicine (59.6%). Only 18.5% of the participants visited a pharmacy primarily to purchase prescription medicines. There was no difference in terms of gender with regard to non-prescription medicines' purchase.

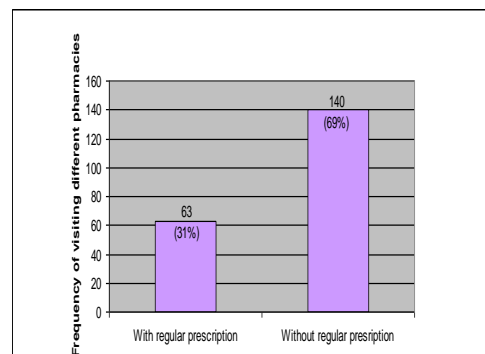


Figure 1

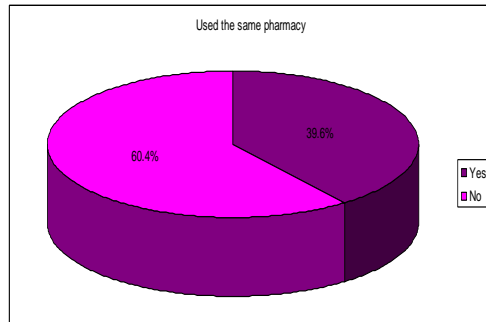


Figure 2

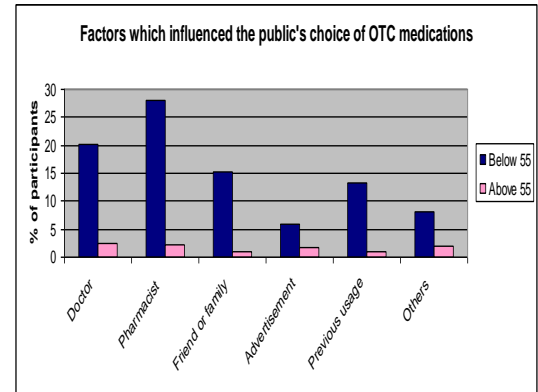


Figure 4

3.4 General attitudes towards the use of OTC medicines

Females (59.5%) and people between 18-25 years of age (33.7%) bought OTC medicines on a more regular basis than males (21.1%) and people between 25-35 years of age (13.5%). Figure 3 summarizes the frequency of purchase of OTC medications by the gender of the participants. Those who did not have a prescription bought OTC medicines on a more regular basis than those who were with a prescription. 33.7% of participants said they took about the same number of nonprescription medications as they did five years ago.

Just over 30% (30.3%) reported that a pharmacist influenced their choice of OTC medications being purchased. Figure 4 summarizes these findings. Malaysians take OTC medications for a wide variety of ailments. Table 1 indicates that most of the study sample (14.8%) reported that they would always stock painkillers at home, followed by vitamins and/or minerals and cough remedies (11%).

Table 1

Types of medications	Frequency(%)
Painkillers	14.8
Vitamins or minerals	11
Indigestion or heartburn	5.4
Medicated skin care products	6.1
Cough remedies	11
Sore throat	9.6
Hay fever products	7.2
Herbal remedies	5.2
Laxatives	4.1
Medicated eye care products	7.6
Medicated foot care products	3.5
Sleep aids	4.3
Antidiarrhoels	4.2
Medicated ear care products	2.8
Haemorrhoids products	3.2

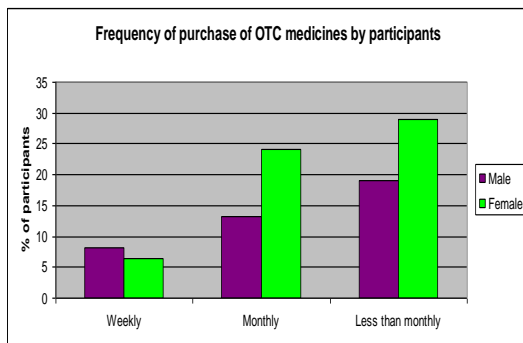


Figure 3

4. DISCUSSION

This study investigated the general public's opinion and perception regarding OTC medications with respect to safety, potency, efficacy and abuse. Overall, this study revealed that most of the participants in this survey are regular users of community pharmacy services for the purpose of self-medication.

Almost half of the participants (48.0%) reported visiting the community pharmacy less than monthly and more than a quarter of those receiving regular prescriptions reported buying OTC medicines at least once in a month. This indicates that OTC medications use is a common practice in Malaysia and thus might have implications with respect to safety of the medications. Interactions between OTC products and prescribed medications have also been documented. [3] A survey in the US discovered high levels of prescription and non-prescription drugs being used concurrently, which is a source of concern for unwanted drug interactions. This has been confirmed by a report from the Finnish researchers who used data on health care from a population based interview survey.[4] With regard to this, doctors and pharmacists must be alert in case of polypharmacy due to the non-prescribed medications that many of the patients might be taking.[5]

The main factor found to influence the public's choice of OTC medicines was pharmacist recommendation (30.3%). With over 90% of the population visiting them during one year, pharmacists are recognized as the most accessible healthcare services in the community [6], [7], [8], [9]. Pharmacists have also been viewed as being someone who is knowledgeable enough that they can advise patients regarding management of common symptoms and other long term conditions, and at the same time involving themselves in health education and promotion programs [10]. Due to their easy accessibility, availability, and regular contact with the public, community pharmacists could play a significant role for the delivery of these kinds of activities as they are known as reliable sources of information [11],[12]. The World Health Organization (WHO) has also been contemplating on the idea that pharmacists will be able to make greater contribution in terms of provision for health care. This finding is reassuring especially with increasing potential for drug interactions due to the availability of potent medications without prescription. [13], [14]

The most common type of medication stocked at home was found to be painkillers (14.8%), followed by vitamins and/or minerals and cough remedies. This result was similar to a study conducted among university students in Malaysia [15] and also of other studies [16], [17]. Previous studies of American adults, demonstrated the importance of OTC medications in the general population. They also discovered that the most frequently used medication which was taken by approximately 20% of the population in a given week was OTC analgesics. [18]

Though the terms misuse and abuse were explained to respondents, some confusion may have occurred in the meaning

of the two terms which is a drawback of this study. The challenge would thus be not to restrict access to OTC products for those who have been using them safely and at the same time to be able to attain a high level of consumer safety for those who are at risk.

By monitoring the usage of OTC products, recording data, and having continuous education programs, we can promote the safe and effective use of OTC medications. This study relied on self reporting which might have limited the findings. Still, the finding of this study is essential to recognize public perception in terms of safety, potency, efficacy and abuse of OTC medications.

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