

3-1-2021

Assessment of Knowledge, Attitude, and Practice of Over-the-Counter Drugs among Community Pharmacists

Shivakumar M

Professor and Head, Department of Pharmacy Practice, NET Pharmacy College

Jintu J

Department of Pharmacy Practice, NET Pharmacy College, Raichur

Follow this and additional works at: <https://impressions.manipal.edu/mjps>

Recommended Citation

M, Shivakumar and J, Jintu (2021) "Assessment of Knowledge, Attitude, and Practice of Over-the-Counter Drugs among Community Pharmacists," *Manipal Journal of Pharmaceutical Sciences*: Vol. 7 : Iss. 1 , Article 3.

Available at: <https://impressions.manipal.edu/mjps/vol7/iss1/3>

This Research Article is brought to you for free and open access by the MAHE Journals at Impressions@MAHE. It has been accepted for inclusion in Manipal Journal of Pharmaceutical Sciences by an authorized editor of Impressions@MAHE. For more information, please contact impressions@manipal.edu.

Assessment of Knowledge, Attitude, and Practice of Over-the-Counter Drugs among Community Pharmacists

Shiv Kumar*, Jintu John

shivkumarmatur@gmail.com

Abstract

Objective: To assess the knowledge, attitude, and practice of community pharmacists regarding over-the-counter (OTC) drugs. **Materials and methods:** A cross-sectional study using a pre-validated list of questions was conducted among the community pharmacists over two months from June to July 2020. The survey had 19 questions on the attitudes, knowledge and practice of participants towards OTC drugs. **Results:** Responses were obtained from 54 pharmacists (response rate, 91.5%). Among the pharmacists, the majority of them were able to define OTC (89%) and prescribed drugs (78%). Only 46% of the pharmacists were aware of the fact that the drugs listed under schedule H can be sold only with a prescription. Almost 70% of the pharmacists claimed that OTC drugs encourage self-medication among patients. A vast majority of the participants (79%) were concerned about the misuse of OTC. Almost all the pharmacists (83%) surveyed advised and dispensed another brand on their own after informing patients if the prescribed brand was not available. Only 37% claimed that they encourage patients to consult a physician before obtaining the medicines. **Conclusion:** It is recommended that there is a need for health education interventions such as pamphlets and awareness programs about the hazards of misusing drugs targeting both the general public as well as community pharmacists (CP), thereby promoting the appropriate use of drugs. Hence, the study concludes that improving pharmacists' Knowledge, Attitude, and Practice (KAP) about Over-the-Counter (OTC) can improve the rational use of non-prescription drugs.

Key words: Community pharmacist, KAP, over-the-counter drugs

Introduction

The patients/individuals can procure medicines not only through the prescriptions by doctors but can also purchase the medicines directly. Amongst the most prominent example is the retail or community pharmacy from which originates the metonymic term "over-the-counter" (OTC).¹ OTC drugs, also known to be non-prescription medicines, include the drugs sold without a prescription from a registered medical practitioner (RMP). The Indian OTC market is ranked 11th in the global OTC market. The repeated use of OTC drugs leads to harmful effects like gastrointestinal bleeding, antibiotic resistance,

and others.² In India, although the OTC phrase does not have any legal recognition, all the medicines not listed under the category of prescription medicines are classified as non-prescription medicines.³

The Drug and Cosmetics Rules of 1945 categorized prescription drugs under two schedules: Schedule H and Schedule X. Drugs listed under these schedules can only be sold on prescription by an RMP. This regulatory provision is made to discourage self-drug use. In India, patients self-order both OTC and prescription-only drugs, although the dispensing of the latter without a prescription is unlawful. Despite regulations, in many developing countries, most medications are available without prescriptions.⁴ In the global and domestic pharmaceutical industry, the use of OTCs has gradually increased. The availability of OTC drugs helps consumers to treat several conditions which do not need medical attention and without the guidance of experts in healthcare. In several countries, there is current

Shiv Kumar¹, Jintu John¹

¹ Professor and Head, Department of Pharmacy Practice, NET Pharmacy College, Raichur

* Corresponding Author

Date of Submission: 12-Sep-2020, Date of Revision: 09-Mar-2021, Date of Acceptance: 11-Mar-2021

How to cite this article: Kumar S, John J: Assessment of Knowledge, Attitude, and Practice of Over-the-Counter Drugs among Community Pharmacists. *MJPS* 2021; 7(1): 87-90.

interest in reclassifying pharmaceutical drugs from sales only on prescription to non-prescription sales (OTC).⁵

OTC medications may be abused and misused, which are regarded as clinically and ethically inappropriate. Abuse of these OTC medications refers to the use of medication for unintended or nonmedical purposes like losing weight or achieving mind-altering effects. While misuse of OTC medications refers to the use of medications for therapeutic purposes in a wrong manner, especially in terms of the period of use or dosage.⁶ Self-medication plays a vital role in healthcare. With the improvement in people's education, socio-economic status, and general knowledge, the process of self-medication has been implemented successfully in many of the healthcare systems all around the world.⁷ Pharmacists and pharmacy attendants in India play a key role in encouraging self-medication amongst the public. Combination preparations, including "hidden" classes of food supplements and drugs or the tonics of doubtful quality, are also seen to be commonly used. Further, it is also possible to procure prescribed as well as non-prescribed medications with or without prescriptions through varied sources.⁸

Several studies have shown that self-medication with OTC drugs is more evident.⁹ The penultimate connection between the patients and drugs is drug dispensers and pharmacists. Several people think that pharmacists represent an easy, appropriate, and readily available source of information and advice. Pharmacists may therefore play a major role in changing patients' actions concerning self-medication. They may also provide patients with satisfactory, intelligible, and specific information on their drugs and different OTC products.⁹ Taking into account the importance of the use of OTC medications and the role of pharmacists in promoting practice among patients, the present study is performed to examine KAPs of the OTC drugs amongst community pharmacists.

Materials and Methods

A cross-sectional questionnaire-based survey was conducted on community pharmacists in a selected area of Kollam, Kerala from June to July 2020. A pre-

validated questionnaire consisting of 19 questions was used to evaluate the knowledge, attitude, and practice among the study population (Bikash Ranjan Meher *et al.*). The questionnaire was given to the pharmacists to fill after explaining the purpose of the study and was also assured of anonymity. For each positive response or correct answer, a score of 1 was allotted and a score of 0 was allotted for each negative response or wrong answer. Only completely filled questionnaires were sorted-out for data analysis.

Results

Of the 59 CP's approached, 54 completed and returned the questionnaire, giving a response rate of 91.5%. Table 1 describes the demographic data of pharmacists based on details gathered from them. The majority of the CPs (72%) were male and most of the surveyed pharmacists (65%) are qualified with a degree in pharmacy and have more than five years of experience. Pharmacist knowledge regarding OTC is shown in Table 2. Among the pharmacists, the majority were able to define OTC (89%) and prescribed drugs (78%). Only 46% of pharmacists were aware that the drugs listed under schedule H can be sold only with a prescription. Further, Table 3 depicts details of the responses given by the participants regarding attitude. Almost 70% of pharmacists claimed that OTC drugs encourage self-medication among patients. A vast majority of the participants (79%) were concerned about the misuse of OTC. Response of participants regarding the questionnaires related to practice is depicted in Table 4. Almost all the pharmacists (83%) surveyed advised and dispensed another brand on their own after informing the patient, if the prescribed brand was not available. Only 37% claimed that they encouraged patients to consult a physician before obtaining the medicines.

Table 1: Demographic profile of participants.

Variables	Numbers (%)
Gender	
Male	39 (72%)
Female	15 (28%)
Educational qualification	
BPharm	36 (67%)

DPharm	18 (33%)
PharmD	-
Others	-
Years of experience	
< 5 years	19 (35%)
>5 years	35 (65%)

Table 2: Response to knowledge-based questions (n=54).

Sl. No.	Questionnaire	Correct response (%)
1	In medical terms OTC means over the counter (T/F)	69%
2	Prescription only drugs are meant to be given only with prescription of RMP (T/F)	78%
3	OTC drugs can only be given with prescription from a RMP (T/F)	89%
4	Drugs categorized under Schedule H can be sold without a prescription (T/F)	37%
5	In India, there is no legal recognition for OTC (T/F)	56%
6	Paracetamol toxicity may induce liver damage (T/F)	48%
7	Aspirin is beneficial for gastritis (T/F)	41%
8	Patient can procure morphine through OTC (T/F)	74%

Table 3: Response to attitude-based questions (n=54).

Sl. No.	Questionnaire	Correct response (%)
1	Do you contemplate that antibiotics should be made available as OTC? (Y/N)	57%
2	Does misuse of OTC concerns you? (Y/N)	79%
3	Is it necessary to update the information about OTC periodically? (Y/N)	92%
4	Should an age limit be imposed for procuring OTC?? (Y/N)	76%
5	Do you agree that OTC drugs support self-medication in patients? (Y/N)	70%

Table 4: Response to practice-based questions (n=54).

Sl. No.	Questionnaire	Correct response (%)
1	Do you dispense drugs after receiving prescription? (Y/N)	62%
2	Do you dispense an alternative brand in case of unavailability of prescribed brand without consulting the concerned physician? (Y/N)	83%
3	Do you recommend patients to consult doctor when they approach you with any ailments instead of providing them medicines yourself? (Y/N)	37%
4	Are you updating your knowledge about OTC? (Y/N)	5%
5	Did you ever sell any IV fluid or injection without prescription? (Y/N)	60%
6	If you suspect about the abuse/misuse of OTC will you counsel the costumers/ patients? (Y/N)	29%

Discussion

Over-the-counter medications play a prominent role in the healthcare system and account to be the most predominant means of treating common health problems in India. Due to the increase in the cost associated with the healthcare sector, the use of OTC medications and self-medication have been increasing dramatically in the last decades in both men and women.¹⁰ With pharmacists being the frontline of contact for the patients and having the opportunity to possibly counsel and educate patients on suitable OTC medication use,¹¹ we have focused the present study on the community pharmacy settings where the drugs directly meet their consumers.

Community pharmacists have a huge role in health-care management and they can positively influence healthcare promotion. Their professional activities include providing an accurate supply of the appropriate products, offering guidance to patients on the distribution of non-prescription and prescription medications as well as providing drug information to the patients, health professionals, and the public, and engaging in health promotion

programs. All these are mentioned good pharmacy guidelines (GPP). It is known that, despite the presence of GPP guidelines from a recognized organization, the practice of pharmacy differs from country to country (inter-country) as well as between different areas within a country (intra-country).⁴

The current study revealed that 89% of the respondents could define OTC drugs and 78% prescription drugs. In this study, it was also found that half of the pharmacists provided proper counsel to drug abusers. These findings demonstrate that pharmacists should be prepared in order to deal with different issues of drug abuse and to hold ethics to endorse the requisite positioning of those abilities. The results obtained were found to be compatible with the findings from another study published in Saudi Arabia.⁶

In this study, around 89% of pharmacists advised and dispensed an alternative brand or a generic product (a pharmaceutical product that is bioequivalent to a branded product in terms of safety, dosage form, strength, performance characteristics, route of administration, quality, and intended use¹²) on their own, if the prescribed brand was not available. However, in a study performed in Goa, it was found that only 19.8% of pharmacists distributes another brand after informing the patient in case of non-availability of the prescribed brand.⁴ Nevertheless, without consulting the prescribed physician, it may be harmful to the patients especially for those who are prescribed with the drugs having narrow therapeutic index and nonlinear kinetics. In our country, there are no such guidelines available on generic substitution. Only a two-thirds of pharmacists in this study were aware of schedule H drugs, but in a study done in Goa, all pharmacists had correct knowledge regarding schedule H drugs.⁴

The majority of participants in the study (79%) raised the issue of misuse of OTC medications. Similar observations have also been reported in other studies.⁹ One of the possible reasons for OTC misuse is the increased accessibility to medications for treating common illnesses and other such diseases via the switch from prescription (RX) to OTC drugs.¹³

According to 70% of the pharmacists, OTC drugs encourage self-medication among patients, which was reported to be similar in the studies conducted in the rural and urban populations. The proportion of people who have self-medicated themselves with OTC medications is very high and is reported to be around 72.87%, which is nearly the same in both the urban and rural population.⁷ In order to avoid potential hazards associated with such self-medication, campaigns and awareness programs have to be promoted.

Conclusion

It is a sustainable fact that OTC use is not illegal, but it might be associated with safety and other issues and may lead to potential health hazards. The findings of the study showed that the majority of the CPs had basic knowledge regarding OTC drugs, but practice of clinical pharmacy profession needs to be improved. It is recommended that the need for health educational interventions such as pamphlets and awareness programs about the hazards of misusing drugs targeting both the general public as well as CPs thereby promoting the appropriate use of drugs. Hence the study concludes that improving pharmacist's KAP about OTC can improve the rational use of non-prescription (OTC) drugs.

Acknowledgement

The authors would like to express sincere gratitude to all the participants for their co-operation for the accomplishment of this project work.

References

1. Richard J Cooper. Over-the-counter medicine abuse-a review of the literature. *Journal of Substance Use*, 2013;18(2):82-107.
2. Kaur G, Kaur J, Pannu T, Singh HP, Kaur S, Kaur S, Kaur K, Kaur M. Dispensing Pattern of OTC Drugs for Dental alignments by Retailer Pharmacist in Amritsar, North India. *Arch of Dent and Med Res* 2015;1(4):11-14.
3. Nagaraj M, Chakraborty A, N Srinivas B. A Study on the Dispensing Pattern of Over the Counter Drugs in Retail Pharmacies in Sarjapur Area, East Bangalore. *Journal of Clinical and Diagnostic Research*. 2015;9(6): FC11-FC13.
4. Paes MR, De Sa S. Drug dispensing practices in private pharmacies in Goa. *Natl J Physiol Pharm Pharmacol* 2018;8(4):507-511.

5. Ravichandran A, Basavareddy A. Perception of pharmacists regarding over-the-counter medication: A survey. *Indian J Pharmacol* 2016;48:729-32.
6. Mobrad AM, Alghadeer S, Syed W, Al-Arifi MN, Azher A, Almetawazi MS, Babelghaith SD. Knowledge, Attitudes, and Beliefs Regarding Drug Abuse and Misuse among Community Pharmacists in Saudi Arabia. *Int. J. Environ. Res. Public Health* 2020;17, 1334.
7. Hanumantharayappa NB, Siddaiah SN. Use of over the counter drugs in urban and rural populations of Mandya district: A cross-sectional study. *Int J Basic Clin Pharmacol*. 2016;5(4):1617-1621.
8. Shroti R, Nayak N, Rajput MS. A study on over the counter drugs in retail pharmacies in Indore city. *Der Pharmacia Lettre* 2011;3(3):133-138.
9. Meher BR, Balan S, Pugazhentni E. KAP of OTC Drugs among Dispensers Working in Retail Pharmacies of a South Indian City. *Journal of Clinical and Diagnostic Research*. 2018;12(1):FC01-FC04.
10. Abdulkarem AR, Elkrewi EZ, Shatat IN, Alosebai NM, Ismail WM. Perception of Over the Counter Drug Advertising among Pharmacists in Abu Dhabi, UAE. *Arch Phar & Pharmacol Res*. 2018;1(1), 1-6
11. Sansgiry SS, Bhansali AH, Bapat SS, Xu Q. Abuse of over-the-counter medicines: a pharmacist's perspective. *Integrated Pharmacy Research and Practice* 2017;6, 1-6.
12. Wajid S, Al-Arifi MN, Al Nomay HA, Al Mousa YN, Babelghaith SD. Knowledge and perception of Community Pharmacists' towards generic medicines in Saudi Arabia. *Biomed Res* 2015;26(4):800-806.
13. Soller RW. Evolution of selfcare with over-the-counter medications. *Clin Ther*. 1998;20:c134-c140.