

Review Article

April-June 2019

Volume 8 Issue 2

A REVIEW ON SELF MEDICATION IN INDIAN POPULATION

NEETHU NARAYANAN T. K., MANJU C S *

Department of Pharmacy Practice, Govt. College of Pharmaceutical sciences, Govt.
Medical College, Kozhikode, Kerala-673008, INDIA

Corresponding author: MANJU C S, Email id: manjusreeniajith@gmail.com

ABSTRACT:

Self-medication, practiced globally is an important health problem especially in developing countries like India. Inappropriate self medication leads to adverse drug reaction, disease masking and inaccurate diagnosis of disease, increased morbidity and mortality, antibiotic resistance, drug interactions and wastage of health care resources. Fever, headache, pain and gastric problems are the main symptoms, Analgesics, antibiotics, antiulcer and cough suppressants are commonly used medicines. Gender difference, education, economical burden, time consumption and ease of convenience are the main factors effecting self-medication. In India prevalence of self medication is very high because, the wide range of medicine availability and higher rate of acceptability. Here we systematically review the existing literature on self medication to gain the recent information regarding the sample population, reactions, prevalence, reason for self medication, medication used and common indications.

KEYWORDS: Self medication, disease masking, antibiotics, analgesics, prevalence

INTRODUCTION

WHO define self-medication as “the selection and use of medicines by individuals to treat self-recognized illness or symptoms. In this definition, medicines include herbal and traditional products. Self-medication is one element of self-care [1]. Medicaments that are safe and effective for use by the general public without the aid of a prescription from a registered medical practitioner are called ‘over the counter drugs(OTC)’ or Non Prescription medicines[2]. Over the counter (OTC) drugs are a class of self-medication, the buyer or patient diagnosis his/her own illness and buys a specific drug to treat it. OTC drugs gives relief from symptoms so that do not always require medical intervention [3].

In 1970 The World Federation of Proprietary Medicine Manufactures Association renamed as World Self-Medication industry (WSMI) with a primary objective to reduce the work load of regulation of medicine and then classifies medicines into two: Prescription and non-prescription. The new era of self-medication starts from 1980’s, were prescription began to be switched to non-prescription drugs. Ibuprofen was the first drug that was switched into non-prescription used for pain, in UK (1983) and in US (1984) [1].

To reduce the huge burden on health service centers, which are often less in number of staff and unreachable in rural and remote area for effective and quick relief of symptoms World Health Organization (WHO) promotes the of self-medication practices. In each year about 300,000 people are able to reduce their risk of lung cancer, emphysema, stroke, heart attack and complications in pregnancy by use of OTC medicines, like non-prescription drug nicotine helps people to get rid from smoking [3].

Self-medication has some benefits from different perspectives, consider the pharmaceutical industries they can increase their production when a drug switch to non prescription. And they can improve their market status against a prescription drug [5].

In case of the professionals especially in case of pharmacist increase their role in health care system; also increase the patient pharmacist interaction. And also help to improve the professional status in health care system. Come to the patient side; they can improve their knowledge about the medicines and treatment of mild illness. Patient can save

time, cost and quick relief from mild symptoms. Self-medication also promotes the confidence of medicine among common people [6].

Misuse and abuse leads to serious issues in self-medication, especially opioids, antihistamines and pain killers [7]. A survey conducted in 2002, the non medical use of pain killers by 18-25 years adult people was 5.4%, and then this count was drastically increased into 6.3% in 2005[8]. The main disadvantage of self-medication is the drug interaction; it may be with the two OTC drugs or with the prescribed drug. Most reported interaction is cimetidine interact with metabolism of theophylline, warfarin, phenytoin and fluoxetine (leads to extrapyramidal syndrome) [9]. The main self-medication related adverse reactions are allergy, gastrointestinal problems, psychosis, seizures and dizziness. Large number of reports are relating to the use of NSAIDS like Ibuprofen, diclofenac, naproxen, mefenamic acid derivatives are leads to risk of internal bleeding [10].

INDIAN SCENARIO

When come to the Indian scenario, in India the term OTC has no legal recognition and does not find a mention in the Drugs and Cosmetic Act(DCA)1940 or the Drug and Cosmetic Rules(DCR)1945. In India these medicines' are manufacture, import and sales are govern by DCR and DRA, under the supervision of Central Drug Standard Control Organization(CDSCO) which is headed by the Drug Control General of India(DCGI). The OTC committee of the Organization of Pharmaceutical Procedures of India(OPPI) works for the promotion of responsible self-medication to promote the OTC market. It not only for the promotion also ensures the safety. And the committee aims at community education and awareness programs [11, 12, and 13].

In schedule H and X, prescription only drugs are listed out. In schedule G do not need a medical supervision but contain a "caution; it is dangerous to take this prescription except under medical supervision". The schedule K do not described as 'prescription only drugs' so the list of drugs consider as "OTC medicines"[14]. There are three class of medicines based upon the availability, Prescription only, pharmacy only and medicines on the general sales list. Any drug or preparation, not included in the first and third categories falls into the pharmacy only list. Medicines available in the second and third categories are often referred to as over-the-counter or OTC medicines [3].

In global OTC market, India ranks 11th position. The high acceptability and wide range of medicine availability will increase the OTC medicine production and use in India. But surveys shows that India become the 3rd rank within 5 years. Ignorance, poor knowledge, lack of awareness and difficulty of high quality medical care, increases the demand of OTC medicines in India [15].

At the same time self-medication is an important health problem in developing country like India. When considering the hill, tribal and other lands difficult to reach, there a huge absents of health force, the patients always depend on self-medication practices [4]. Nowadays in India the wide availability of drugs for self-medication against prescription medicines leads to many health issues. OTC medicines are safe and effective but the overuse or misuse produces most of problems [3]. Self-medication also leads to serious drug interactions. And also produce complications in case of antibiotics like drug resistance. The improper use of medicines due to the lack of knowledge of their adverse reaction also produces drastic problems.

Most commonly used medications for self-medication: Non-steroidal anti-inflammatory drugs (25.3%), mainly antipyretic and analgesic drugs. Antihistamines (19.7%) with the most common are being cetirizine (10%) and gastrointestinal drugs (20.8%) with the most common are pantoprazole (8%) ranitidine (9.2%) and antibiotics (16.7%). The common symptoms are fever, cold, pain and gastrointestinal problems [3]. The main reasons are no need of a treatment for mild illness, to reduce economical burden, for time saving and previous experience of medicines. Most of them get knowledge of medicine from pharmacy by explain symptoms to pharmacist, advised by family or friends and also recall the name from previous prescriptions. These patients inappropriately store and use medicines even without reading the instructions, and also stop medicines when the symptoms relieved [16].

According to Mohamed saleem T K et al, males are practicing self-medication than that of females. Approximately 66% of males and 34% off males were using self-medication in our nation within 6 months of Time period. The main reason for practicing self-medication is to avoid the loss of one day wages and for time saving. Most of males believe that there is no need of a treatment for mild illness.

They always consider reducing their economic burden and time spending in hospitals. Out of the 34% about 80 % of females are house wives, and they are practicing self-

medication due to their work load in house and they also think that treatment is not necessary for mild symptoms [17]. They also practices home remedies and natural medicines to reduce the symptoms, most of them are illiterate. There is a surprising fact that most of women store common medicines in their houses in inappropriate manner. More than 50% of persons use and recommend medications to others [18].

In case of elderly patients about 60% of them suffer adverse reactions of SM. Most of them use NSAIDS with their regular medicines, without any consultation. Antipyretics (78%) analgesics (72%) antihistamine (42%) and antibiotics (38%) were the most common self-medication drugs. In pregnant women and children prevalence of self medication become less than others. They are using medication only after consultation. Self-medication practice is very high in adolescent peoples. Whereas one-third had engaged in inappropriate manner, such as not reading drug labels, instructions before taking a medicine, taking medicines with inappropriate(excessive)dosages, and also practicing polypharmacy [19].

There is a common thought in our society that the illiterate peoples were more prone to self-medication due to their lack of knowledge. But the data obtaining from the studies give a clear picture against this. About 60% of literate people using self medications were illiterate people having only 40%. And from the 60% about 45% people are degree holders, 10% were post graduated, 20% were plus two qualified and 25% were SSLC qualified. From this most of them are employees and they give more importance to their job and loss of their wages. A large number of persons remember the medicine name from previous prescriptions and use it again and again. The next category persons will tell their symptoms to pharmacist and purchase their medicines. Most of them are stop their medicines after relieving the symptoms without completing their medication course. So after that if the same symptoms appear they use same medications [4].

About 84% of medical students are aware about what is OTC drug and 71% know which drug under OTC category. They took self-medication approximately 4 to 5 times on average in last one year. Most common conditions/symptoms for self-medication were fever (89%), cough and cold (75%), headache (67%), diarrhea(33%), any type of pain(53%), followed by minor cut, vomiting. Antipyretics (82%) cough and cold preparation (51%) and pain killers (49%) were the most common medicine taken. OTC medicines are widely used among medical students who studying pharmacology. They are aware about the possible adverse reactions and major problems of these practices.

From these studies the most common medication taken was antipyretics and analgesics for fever and ache [20].

CONCLUSION

In developing countries like India self-medication produce high risk in patients. The wide range of medicine availability in our country increases the usage. Antibiotic resistance, adverse reaction, drug interaction and drug addiction are most reported problems. Men use self-medication than female, due to avoid the loss of wages. In case of women house wives are more prone to the self-medication. Analgesics are commonly used drug and fever, headache are the common symptoms. The main reason for self-medication is that to save time and for economic benefits. The proper control for usage of OTC medicine is necessary in our country for provides better treatment.

REFERENCES

1. World Health Organization. Guidelines for the Regulatory Assessment of Medicinal Products for use in Self-Medication [Online] 2000. Available from: <http://apps.who.int/medicinedocs/en.html>.
2. Hughes CM, McElnay JC, Fleming GF. Benefits and Risks of Self Medication. *Drug Saf* 2001;24(14):1027-37
3. Ahmad A, Khan MU, Srikanth AB, Kumar B, Singh NK, Trivedi N *et al.* Evaluation of Knowledge, Attitude and Practice about Self-medication among Rural and Urban North Indian Population. *Int J Pharm Clin Res* 2015;7(5):326-32.
4. Selvaraj K, Kumar GS, Ramalingam A. Prevalence of self-medication practices and its associated factors in Urban Puducherry, India. *Perspect Clin Res* 2014;5:32-6.
5. Blenkinsopp A, Bradley C. Over the counter drugs: patients, society, and the increase in self medication. *Br Med J* 1996;312:629-32.
6. Bradley CP, Bond C. Increasing the number of drugs available over the counter: arguments for and against. *Br J Gen Pract* 1995;45:553-6.
7. Wazaify M, Shields E, Hughes CM, McElnay JC. Societal perspectives on over-the-counter (OTC) medicines. *Fam Pract* 2005;22:170-6.
8. Schmiedl S, Rottenkolber M, Hasford J, Rottenkolber D, Farker K, Drewelow B *et al.* Self-medication with over-the-counter and prescribed drugs causing adverse-drug-reaction-related hospital admissions: results of a prospective, long-term multi-centre study. *Pharm World Sci* 2000;22(2):47-52.

9. Sheen CL, *et al.* Over-the-counter drugs and the gastrointestinal tract. *Aliment PharmacolTherap* 2001;15:1263-70.
10. Nagaraj M, Chakraborty A, Srinivas BN. A study on the dispensing pattern of over the counter drugs in retail pharmacies in Sarjapur area, east Bangalore. *J ClinDiagn Res* 2015;9(6):FC11-3.
11. Sarda R, Ladkat NB, Khodade RB, Chaudahri PM, Kasture PV. The Indian pharmaceutical industry: evolution of regulatory system and present scenario. In *Res J Pharm* 2012;3 (6):340-9.
12. Central Drugs Standard Control Organization. New Drugs Division[Online].2012. Available from: <http://www.cdsc.nic.in>.
13. Ministry of Health and Family Welfare. Drugs and Cosmetic Act and Rules [Online].2012. Available from: <http://www.drugscontrol.org/schedule-H.html>
14. Basak SC. Drug access and OTC drugs. *SocSciMed* 2012;7(1):3-4.
15. Nagalingam S, Krishnan GC, Arumugam B. Usage of over the counter drugs – The counterintuitive exploitation. *Int J Sci Stud* 2014;2(9):16-20.
16. Vinithra Varadarajan *etal*, A Cross sectional study on the prevalence of self medication in a Chennai based population, Tamilnadu, India. *Int .j.community med public health* 2017 february 4(2),418-423.
17. Mohamed Saleem T.K *etal*, Self-medication with over the counter drugs:A questionnaire based study .*Der Pharmacia letter* 2011, 3(1), 91-98.
18. Levin T, Jayakrishnan SS, Sheron J, Neethu V, Dilip C, Arun R. Assessment of OTC Drug Labels For Patient Information In Community Pharmacies In Thiruvananthapuram City. *IJIPSR* 2014;2(5):1034-41.
19. Keshari SS, Kesarwani P, Mishra M. Prevalence and Pattern of Self-medication Practices in Rural Area of Barabanki. *Indian J of ClinPract* 2014;25(7):636-9.
20. Athira ghosh *etal*, a study on knowledge and practices of over the counter medication among 2nd year medical students (*world journal of pharmacy and pharmacy and pharmceutical sciences* 2015,4th vol,7,1074-1081)
21. Pagane JA, Ross S, Yaw J, Polsky D. Self medicationand health insurance coverage in Mexico. *Health Policy* 2007; 75: 170-177.
22. Fricker RD, Schonlau JM, RAND. Advantages and Disadvantages of Internet Research Surveys: Evidence from the Literature. *Field Methods* 2002;

23. Selwyn N, Robson K. Using e-mail as a research tool. Social Research Update 1998. Issue 21
24. eHealth Code of Ethics. Available from:<http://www.ihealthcoalition.org/ehealth code/> Assessed on Jan,2011.
25. Verma RK, Mohan L, Pandey M. Evaluation of self medication among professional students in North India: proper statutory drug control must be implemented. Asian Journal of Pharmaceutical and Clinical Research. Vol.3 Issue 1, January-March 2010. Pg 60-4.
26. World Health Organisation. Available from:
<http://www.apps.who.int/medicinedocs/pdf/whozip32e/whozip32e.pdf>
[Last accessed on 2013 Jun 24].
27. Sharma R, Verma U, Sharma C L, Kapoor B. Self-medication among urban population of Jammu city. Indian JPharmacol, 2005; 37: 40.