



Research article

A survey of the impact of clinical pharmacists in identifying the risk factors of self-medication practices among the elderly in Bhopal

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ABSTRACT

The use of a product to prevent or treat an illness or symptom in order to promote health without a prescription or medical supervision is known as self-medication. Economic, political, and cultural variables have led to the use of self-medication, which is now a significant global public health issue. The study aimed to determine the characteristics that increase the probability of older people self-medicating, based on the clinical pharmacist's impact. It is an observational, cross-sectional, prospective study conducted inside a community. Our study set out to examine the risk factors associated with elderly people's habits of self-medication. Numerous studies have demonstrated that self-medication is widespread globally. In this study, the prevalence of self-medication is 84.21%, indicating high practices and were Studies among university students from Serbia (79.9%), Nepal (81.9%), and South Western Nigeria (91.4%) have revealed similar prevalence rates. Self-medication among the elderly is about 10% in the current study, although it is about 16.9% in previous reports. Fever and headaches were the most common complaints associated with self-medication activities, followed by coughs (22.63%), discomfort, and chills (14.73%). In this study, the most commonly utilized pharmaceutical classes for self-medication were analgesics (24%), antipyretics (21%), and anti-bacterials (15%). Previous experience is the most common reason given by study participants for their self-medication habits. The study found that the majority of participants (90%) self-medicated, and that the most common conditions for those who did so were fever, headaches, infections, etc. The most commonly used drug classes self-medicated were analgesics (24%), antipyretics (21%), and antibiotics (15%).

Keywords: Analgesics, Antipyretics, Cross-sectional, Prospective, Self-medication.

INTRODUCTION

Self-medication is the use of a product to prevent or treat an illness or symptom, or to promote health at that particular moment, without a prescription from a doctor or consultation.^[1] As to the World Health Organization's definition, self-medication refers to the utilization of pharmaceutical products by the patient to address ailments or symptoms that they have self-diagnosed, or the periodic or continuous administration of medication prescribed by a doctor for persistent or recurrent illnesses or symptoms. ^[2] According to a study done in the USA, 4% of people were

possibly at risk of experiencing a significant drug-drug interaction and 42% of people reported using over-the-counter medications. A 2000–2004 survey verified a dramatic rise in the past few years in the percentage of people who self-medicate, from 17% to 35.5%.^[3] Economic, political, and cultural factors have contributed to the ongoing global increase in self-medication, which is quickly becoming a serious public health concern. The prevalence of self-medication practices varies between developed and developing nations, though, according to differences in

socioeconomic characteristics and health care systems, including policies regarding medicine dispensing, access to care, and compensation rules [5]. In particular, while OTC medications have been shown to be safe and effective, their indiscriminate use in high-risk age groups and during unique circumstances like pregnancy and lactation, without understanding potential interactions, might have detrimental effects [6-7]. Limiting the use of antibiotics for self-medication is necessary to reduce the risk of antibiotic resistance.[8]

Aim and Objectives

The study's objectives were to determine the causes of senior people's self-medication practices and to raise awareness to stop people from using prescription drugs unnecessarily.

METHODOLOGY

Sample for study

[N= 200 Patients] is the sample size taken into consideration.

Study Design

This is a cross-sectional, prospective, community-based, observational study.

Study Period

From July 2019 to February 2020, an 8-month period, the current study was carried out.

Research site

A few neighborhoods in Bhopal, Madhya Pradesh, India were used for this investigation.

Criteria for Study

Individuals who are willing to engage and fall between the ages of 18 and 55 are considered for inclusion. Individuals who were 55 years of age or older and those who were under the age of 18 were omitted. Those who decline to participate are not allowed

Source of Data

Data collecting method

After informing the subjects about the study, all samples that met the inclusion criteria were chosen and

included in the research. Instrument for gathering data A structured interviewing questionnaire was created in order to gather information.

Statistical instruments

Data were taken from the patient's chart, and descriptive statistics were used to examine the data. The collected data was tallied and examined using both descriptive and inferential statistics in order to meet the study's objectives.

RESULTS

Table 1: Basic patient demographic information

DEMOGRAPHIC DETAILS	NUMBER	PERCENTAGE
Gender		
Male	72	36.0%
Female	130	65.0%
Age: (In years)		
18-24	72	36.0%
25-34	52	26.0%
35-44	38	19.0%
45-54	24	12.0%
>55	20	10%
Marital Status		
Married	76	38.0%
Single	58	29.0%
Separated	20	10%
Divorced	42	21.0%
Academic Status		
Illiterate	22	11.0%
Read & write but no formal education	36	18.0%
Primary education	22	11.0%
Secondary education	49	24.50%
Higher education	76	38.0%
Monthly Income		
<1500	42	21.0%
1500-3000	88	44.0%
>3000	68	34.0%
Have Insurance		
Yes	66	33.0%
No	130	65.0%
Number Of Children		
0	44	22.0%
1	70	35.0%
2	50	25.0%
>2	32	16.0%
Place of Residence		
Rural	110	55.0%
Urban	90	45.0%

Table 2: Every Practiced Self Medication

Yes	180	90%
No	20	10%

Figure 1: Complaints

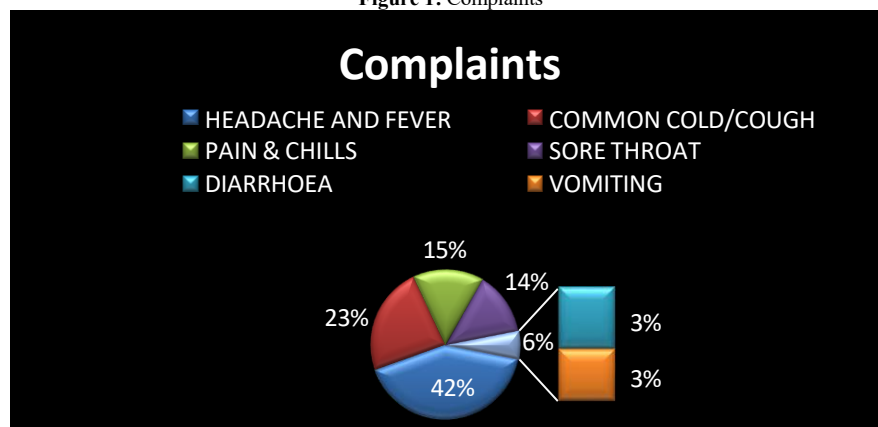


Figure 2: Reasons

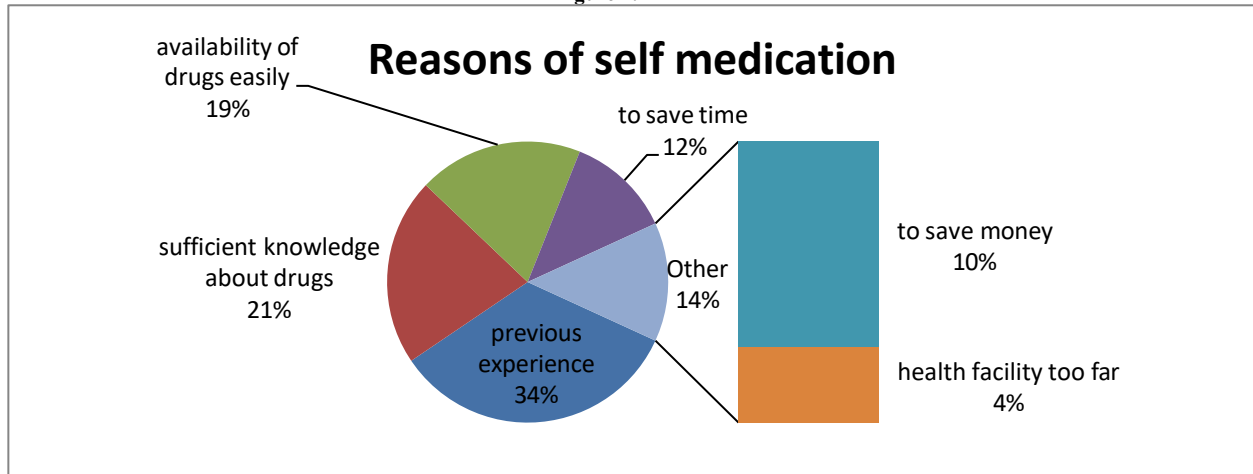


Table 3: Class of Medicines Used In Self Medication

List of medicine used in self-medication	Frequency	Percentage
Analgesics	52	24%
Antipyretics	42	21.0%
Antibacterial	30	15.0%
Vitamins & minerals	22	11.0%
Antiemetic	19	9.5%
Antacids & Antiulcer	17	8.5%
Antifungal	9	4.5%
Anti-allergy & medicine used in anaphylaxis	9	4.5%
Anti-malarial	8	4%
Ophthalmic medicines	8	4%
Laxatives	4	2%
Cathartic	4	2%

DISCUSSION

Our study set out to look at the potential risk factors associated with elderly people's self-medication behaviors. Numerous researches showed that self-medication is a widespread habit globally. In our study, the prevalence of self-medication activities was 90%. Numerous studies carried out among Serbian university students have revealed a similar incidence. 79.9% [9] Nepal made up 81.9%. Nigeria's southwest 91.4% [11] According to the current survey, 10% of senior citizens self-medicate. However, another study found that 17.8% of senior citizens self-medicate. [12] According to this study, fever and headaches (42%) were the most common complaints associated with self-medication practices, followed by cough (33.70%), pain, and chills (15.38%). Similar observations were found in some investigations, with fever and headaches being the most common complaints. [13] Our data is consistent with a study conducted in south western Nigeria, which found that the most common complaints were diarrhoea, sore throats, and UTIs [14]. In this study, the most commonly utilized pharmaceutical classes for self-medication were analgesics (26.18%), antipyretics (20.11%), and anti-bacterials (14.78%). Our research is consistent with Similar results were

found in another study conducted in Nepal, where the most often used drugs for self-medication were antipyretics, analgesics, and anti-bacterials [14]. However, our research revealed that it was the least reported medication (2.69%) [11]. These medications may have been chosen because of a mild disease or past positive experiences. According to our survey participants, prior experience, adequate drug knowledge, easy drug availability, time and money savings, and proximity to a health facility are the main causes of self-medication activities.

CONCLUSION

According to the study's findings, the majority of participants (90%) self-medicated, and over 10% of senior citizens reported doing so. According to the study, more women than men used self-medication. Previous experience and knowledge of the drug were the common reasons for their practice. The study also revealed that the most common ailments among the participants who self-medicated were fever, headaches, infections, etc. The most commonly used drug classes were analgesics (24%), antipyretics (21%), and anti-bacterials (15%). Monthly income and drug knowledge were found to be related to SMP (self-medication practice).

REFERENCES

1. Paulo LG, Zanini AC., 1988. Self-medication in Brazil. *AMB Rev Assoc Med Bras* 34, Pages 69–75.
2. WHO. 2000. Guideline for the regular assessment of medicinal products for use in self-medication. <http://apps.who.int/medicinedocs/pdf/s2218e/s2218e.pdf>. Accessed November 8, 2017.
3. Medications in South Australia's elderly population. *BMC Complement Altern Med* 3. Goh LY, Vitry AI, Simple SJ, et al. 2009. Self-medication with over-the-counter drugs and complementary 9, Pages 42. Doi: 10.1186/1472-6882-9-42.
4. Yadav RY, Vaidya A, Kumar R, Jain S, Shukla AK., 2021. Psychological distress in healthcare workers during covid-19 pandemic. *Journal of Medical Pharmaceutical and Allied Sciences*. 10, Pages 2644-2652. Doi: 10.1371/journal.pone.0264956.
5. De Loyola Filho AI, Lima-Costa MF, Uchoa E., 2004. Bambui project qualitative approach to self-medication. *Cadernos de Saude Publica*. 20(6), Pages 1661–1669. Doi: 10.1590/s0102-311x2004000600025.
6. KP Osemene, a Lamikanra. 2012. A study of the prevalence of self-medication practice among university students in south western Nigeria. *Trop J Pharm Res*. 11(4), Pages 683–689. Doi: <http://dx.doi.org/https://doi.org/10.4314/tjpr.v11i4.21>.
7. Sharma R, Verma U, Sharma CL, Kapoor B., 2005. Self-medication among urban population of Jammu city. *Indian J Pharmacol* 37, Pages 40-43. Doi:10.4103/0253-7613.13856.
8. Afolabi AO., 2008. Factors influencing the pattern of self-medication in an adult Nigerian population. *Ann Afr Med* 7, Pages 120-127. Doi: 10.4103/1596-3519.55666.
9. Lukovic JA, Miletic V, Pekmezovic T, Trajkovic G, Ratkovic N, Aleksic D, Grgurevic A., 2014. Self-medication practices and risk factors for self-medication among medical students in Belgrade, Serbia. *PLoS One*. Doi: 9(12), Pages e114644 Doi: <https://doi.org/10.1371/journal.pone.0114644>.
10. Sudesh Gyawali, P Ravi Shankar, Phanindra Prasad Poudel, Archana Saha., 2015. Knowledge, attitude and practice of self-medication among basic sciences undergraduate medical students in a medical school in western Nepal. *J clinical and Diagnostic Reaserch*. 9(12), Doi: <https://doi.org/10.7860/JCDR/2015/16553.6988>.
11. KP Osemene & a Lamikanra. 2012. A study of the prevalence of self-medication practice among university students in south western Nigeria. *Trop J Pharm Res*. 11(4), Pages 683–689. Doi: <http://dx.doi.org/https://doi.org/10.4314/tjpr.v11i4.21>.
12. KP Osemene & a Lamikanra. , 2012. A study of the prevalence of self-medication practice among university students in south western Nigeria. *Trop J Pharm Res* 11(4), Pages 683–689. Doi: <http://dx.doi.org/https://doi.org/10.4314/tjpr.v11i4.21>.
13. Sudesh Gyawali, P Ravi Shankar, Phanindra Prasad Poudel, Archana Saha., 2015. Knowledge, attitude and practice of self-medication among basic sciences undergraduate medical students in a medical school in western Nepal. *J clinical and Diagnostic Reaserch*. 9(12), Doi: <https://doi.org/10.7860/JCDR/2015/16553.6988>.
14. Selvaraj K, Kumar SG, Ramalingam A., 2014. Prevalence of self-medication practices and its associated factors in urban Puducherry, India. *Perspect Clin Res*. 5, Pages 32-36. Doi: 10.4103/2229-3485.124569.