Original Research Article

Knowledge, attitude and practice of self-medication in general population of central India

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ABSTRACT

Background: Self-medication is widely used in both urban and rural people around the world, even in developing nations like India. Inappropriate self-medication can squander resources, increase microbial resistance, and pose serious health hazards regardless of whether it can help in the prevention and treatment of illnesses that do not require medical attention.

Materials and Methods: To determine the knowledge, attitudes, and practices of 200 participants on self-medication, a cross-sectional study using questionnaires was conducted.

Result: On the recommendation of pharmacists, 45.5% of respondents used self-medication in the previous six months. About 83% of respondents thought self-medication was harmful if it was used without proper knowledge of drugs and diseases, 69% thought pharmacists were good resources for advice and information about minor medical issues, 59% thought self-medication was acceptable in some situations, and 34% thought a drug's effectiveness was unrelated to its price. Self-medication was favoured by the majority of respondents (38%) for minor illnesses like coughs, colds, and fevers. Due to time savings, participants' confidence in their own medical expertise, the expensive cost of visiting a doctor, and the clinic's distance from their homes, self-medication was chosen.

Conclusion: Even though self-medication has negative effects, many nevertheless do it since it's more convenient. The general public should therefore be made aware of the potential risks associated with self-medication.

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1. Introduction

Self-medication, which is when the general public treats health problems on their own without consulting a doctor, is very common. Self-medication (SM) is a behavioural response that is unique to each person, in which they self-medicate for minor symptoms or illnesses. It involves drugs that could either be beneficial or hazardous. People often attempt to heal themselves when they are ill by using herbs, potions, or medications.[1] Since many medications may be purchased over-the-counter without a prescription and offer a cheap alternative for consumers, it is widely used worldwide in both urban and rural populations, including emerging nations like India.[2] The judicious use of self-medication, according to the World Health Organization (WHO), can help with the prevention and treatment of illnesses that don't require medical attention as well as offer a less expensive alternative for managing common

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disorders. However, it is generally agreed that responsible self-medication needs to be backed up with pertinent medical data.[3]

Numerous variables, such as socioeconomic standing, way of life, ease of access to pharmaceuticals, and drug availability, may have an impact on self-medication.[4] Young people are being influenced by the media and the internet to self-medicate, which can result in incorrect self-diagnosis, drug interactions, and drug usage for the wrong reason. People don't consider the effects of using drugs excessively when taking medication for mild ailments.[5,6] Globally, self-medication has reportedly increased. In order to prevent drug-related problems like antimicrobial resistance, which is currently a concern worldwide, particularly in developing countries where antibiotics are frequently available without a prescription, WHO underlined that self-medication must be properly taught and supervised.[7]

Inappropriate self-medication can lead to resource waste, increased microorganism resistance, and serious health hazards include drug side effects, addiction, extended hospital stays, or antibiotic resistance brought on by excessive antibiotic use.[8] The pattern of SM practices in our nation is still unknown despite the fact that the majority of investigations have been carried out in nations other than India. In light of this, we designed the current study to evaluate the general population's knowledge, attitude, and practice of self-medication.

2. Aim & Objective

To assess the knowledge, attitude and practice of self medication in general population.

3. Materials and Methods

3.1. Study type

It is a questionnaire-based cross-sectional study.

3.2. Study design

To determine the general population's knowledge, attitude, and practice about self-medication, a questionnaire-based study was conducted after receiving approval from the institutional ethics committee.

3.3. Study population

The study was carried out in general population selected by universal sampling method from June 2022 to July 2022.

3.4. Study plan

The participants were first given an explanation of the study's goal in their native language before giving consent. Data was collected using a questionnaire that has been validated. For the purposes of this study, specific operational terms were specified, such as "self-medication," which refers to consumer usage of a drug that has not been prescribed by a doctor. The questionnaire asked questions about socio-demographic characteristics, knowledge, attitudes, and practices related to self-medication, drug use patterns for self-medication, and sources of information on drugs as well as dose, duration, side effects, and interactions of the drugs being used. Few questions were having multiple options. By conducting interviews, the questionnaires were filled up.

3.5. Inclusion criterion

Individuals aged older than 18 years who gave informed consent were included in the study.

3.6. Exclusion criterion

Individuals related to healthcare delivery and those who didn't consent were excluded from the study.

3.7. Data collection and analysis

The data was entered in the excel sheet, tabulated and analysed for frequency and percentage.

4. Results

200 participants (n=200) completed the questionnaire satisfactorily. There were 107 respondents (54%) who were female and 93 (47%) who were male. 75 (37.5%) respondents were between the ages of 18 and 25; 56 (28%) were between 26 and 35; 61 (30.5%) were between 36 and 60; and 8 (4%) were over 60. In terms of education, 9 (4.5%) respondents only completed primary school, 43 (21.5%) had a high school certificate, 115 (57.5%) had a degree, and 15 (7.5%) had a postgraduate degree. 108 (54%) were from an urban location, while 92 (46%) were from a rural area as indicated in Table 1.

4.1. Knowledge

109 respondents (54.5%) did not self-medicate in the past six months, whereas 91 (45.5%) did. According to questionnaire analysis, the following explanations for self-medication were given by 45.5% of respondents (Figure 1).

About 54.5% respondents who didn't self-medicate in the past 6 months gave various reasons, out of which the most important was the risk of adverse effects (Figure 2).

According to the Likert scale, the responses to the questions were rated on a scale of 1 to 5 (1-Strongly Disagree, 2-Disagree, 3-Not sure, 4-Agree, and 5-Strongly agree). Scores 1 and 2 were combined to indicate disagreement, 4 and 5 were combined to indicate agreement, and 3 indicated that the participant was unsure of how to respond to the assertions (Table 2).

Table 1: Sociodemographic profile of survey respondents (n=200)

Gender:		
Female	107	54%
Male	93	47%
Total	200	100%
Age in years :		
16-25	75	37.5%
26-35	56	28%
36-60	61	30.5%
>60	8	4%
Total	200	100%
Locality:		
Rural	92	46%
Urban	108	54%
Total	200	100%
Educational qualification of population:		
Primary school (1st - 8th)	9	4.5%
High school	43	21.5%
Diploma	18	9%
Graduate degree	115	57.5%
Post graduate	15	7.5%
Total	200	100%

Table 2: Knowledge about self –medication among participants

Trait	Strongly Disagree	Disagree	Not sure	Agree	Strongly agree
Full dose of medication affects recovery	09(4.5%)	10(5%)	47(23.5%)	23(11.5%)	111(55.5%)
Storing medicine, syrups, ointments and gels in refrigerator could extend the expiry date	08(4%)	12(6%)	27(13.5%)	61(30.5%)	92(46%)
Taking medicine with food, drink, tea or alcohol can interfere with the effect of medicine	07(3.5%)	19(9.5%)	33(16.5%)	52(26%)	89(44.5%)
It is safe to buy medicine without prescription	48(24%)	51(25.5%)	45(22.5%)	36(18%)	20(10%)
Course of medicines should be complete although the symptoms subside	9(4.5%)	39(19.5%)	29(14.5%)	47(23.5%)	76(38%)

Table 3: Attitude of participants about Self-medication

| Trait	Strongly Disagree	Disagree	Not sure	Agree	Strongly agree
Self-medication is harmful if they are taken without proper knowledge of drugs and disease	09(4.5%)	08(4%)	18(9%)	37(18.5%)	128(64%)
Pharmacist is a good source of advice/ information about minor medical problems	11(5.5%)	20(10%)	52(26%)	69(34.5%)	48(24%)
Self-medication is acceptable in some circumstances	8(4%)	18(9%)	56(28%)	76(38%)	42(21%)
Costly drugs are more effective	23(11.5%)	38(19%)	67(33.5%)	37(18.5%)	35(17.5%)
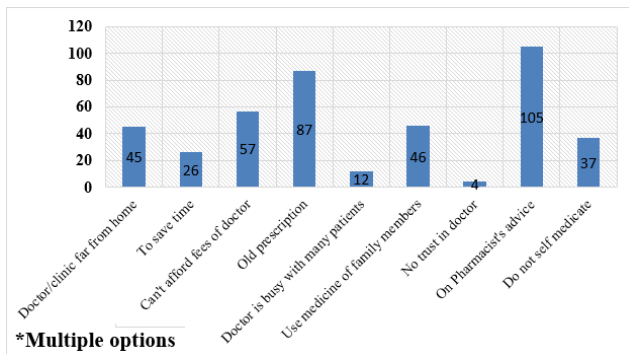
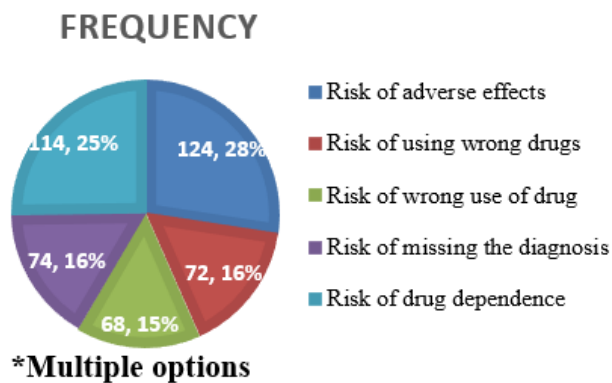**Fig. 1:** Reasons for self-medication by participants.

Fig. 2: Reasons for not practicing self-medication

4.2. Attitude

About 83% of respondents thought self-medication was harmful if it was used without proper knowledge of drugs and diseases, 69% thought pharmacists were good resources for advice and information about minor medical issues, 59% thought self-medication was acceptable in some situations, and 34% thought a drug's effectiveness was unrelated to how much it cost (Table 3).

4.3. Practice

For minor illnesses like coughs, colds, and fevers, the majority of responders (38%) favoured self-medication. The old prescriptions were also utilized. Self-medication was chosen because it saves time, people felt confident in their own medical expertise, and since the clinic was far from their homes and also due to the high cost of visiting a doctor. 31% of those choosing a drug for self-medication looked at the type of medicine, which is mainly allopathic. In addition, elements including price and expiry date were considered. About 73% of respondents said they don't use antibiotics as self-medication. 28% of people chose to visit a private hospital or clinic for common ailments, while 32% preferred to seek pharmacists for help. 60% of those who self-medicated did not read the package insert or drug

information sheet (Table 4).

Table 4: Practice of Self-medication among participants

Practice	Frequency	Percentage
Consider while selecting the drug for self-medication*:		
Price	109	27%
Pharmaceutical company	112	28%
Types of medicine	124	31%
expiry date	57	14%
Prefer self-medication for:		
Minor illness	162	38%
Confidence on your knowledge about medicines	36	8%
High fees of doctors	30	7%
Clinic far away from home	26	6%
Time saving	41	9%
Friends or relative advice	16	4%
Old prescription	110	25%
Other	11	3%
Self-medicated with an antibiotic:		
Yes	55	28%
No	145	73%
When have a common illness*:		
Take medication on your own	68	18%
Go to primary health care centre	71	19%
Go to private hospital centre	80	22%
Consult a friend	28	8%
Ask the pharmacist	119	32%
Other	3	1%
Read package insert or drug information leaflet before self-medication:		
Yes	80	40%
No	120	60%

*Multiple options

5. Discussion

The idea of self-medication is concerning. The baseline data on self-medication in the general population were analysed in the current study. In our study, we found that 45.5% of respondents used self-medication for a variety of causes, but in a study by Banerjee I et al,[9] 57.05% of respondents used self-medication. In our study, it was discovered that 47% of males and 54% of females self-medicated, compared to 46.13% of females and 32.5% of males in a study by Kumar N et al.[7] A study by Benameur T et al[10] found that 222 (94.5%) respondents were graduates, of whom 125 (56.8%) practiced self-medication. In the current study, the majority of respondents 115 (57.5%) were graduates. The notion that education causes a decline in self-medication habits is wrong. More than one-fourth of the respondents thought that costly drugs are more

effective. Because generic products and branded products are bioequivalent, this perception is false. Consequently, the price of a medicine is seldom a reliable indicator of its effectiveness. In contrast to a study by Bhatia MK et al,[8] where 28.3% of respondents felt confident, our study's participants 7.8% feeling more confidence while self-medicating. When they have a common ailment, 38% of responders take drugs on their own. The most frequent reason for self-medication (38%) was a minor illness, which is consistent with a study by Thandani S. et al[11] findings. These ailments seemed to be benign, but incorrect diagnoses and improper care might result in major health problems. But limited and incomplete knowledge can occasionally have negative effects on health. Most of the medications were obtained from private pharmacy i.e. 32% while in a study by Ahmad A et al,[12] 44.8% obtained medicines from pharmacy. This practice should be controlled and managed by the regulatory authorities of India. 120(60%) participants didn't have a habit of reading the package insert leaflet before the administration of the drug. This is a negative habit which can increase the medication errors and side effects to a greater extent.

6. Conclusion

Self-medication is a boon as well as a curse to the society. The study has concluded that the people are having average knowledge about the medications. But their perspective about the safety of medication is not satisfactory. The result showed that those who are self medicating largely depend upon the pharmacist's advice. People are well known about the consequences of self medication but still they self-medicate for their convenience.

7. Conflict of Interest

None.

8. Source of Funding

None.

9. Acknowledgment

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