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Original Research Paper

Pharmacology

EVALUATION OF THE PRACTICE OF SELF MEDICATION AMONG OUTPATIENTS AT NALANDA MEDICAL COLLEGE, A TERTIARY CARE TEACHING HOSPITAL OF PATNA

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ABSTRACT

BACKGROUND: There is no separate over the counter (OTC) category in India. Drugs that are not included in the list for prescription-only drugs are pictured as non-prescription drugs. Prescription-only drugs are those that fall under Schedule H, H1 & Schedule X of drugs and cosmetics rules 1945.The OTC Drug market is increasing internationally and India ranks 11th in the global OTC market. In spite of the existing rules & regulations, in the absence of a clear definition & legal recognition to OTC products & ease of access to various medications, it seems difficult to curb the rising tendency towards self-medication which is highly prevalent in India.

OBJECTIVE: To evaluate the practice of self-medication and find out the indications, reasons, category of drugs used, source of information for self-medication, knowledge about the purchased medicine and public opinion regarding self-medication practice in a tertiary care hospital of Patna.

MATERIALS AND METHODS: A questionnaire based cross sectional observational study was carried out at Nalanda Medical College & Hospital, Patna among 602 patients for a period of 4 months from April 2019 to July 2019. Descriptive data analysis was done and reported in frequencies and percentage.

RESULTS: Prevalence of self-medication in our study was found to be 55%. Frequency of self-medication was found to be once in 39% of the patients. Main reason for self-medication was cost effectiveness(25%) followed by previous experience(24%), the indications most commonly being pain(32%) followed by respiratory infections(17%). We found analgesics (34%) to be the most commonly used drug for self-medication. Around 30% of the patients had some knowledge about the medicines purchased. Most of them(61%) believed that it is an acceptable practice in case of minor illness.

CONCLUSION: Self-medication appears to be a double-edged sword. Our study reflects the prevalence and practice of self-medication in this area. Imparting knowledge about frequently used medications, conditions to be considered as a minor illness, the upsurge of antibiotic resistance, importance of package inserts & expiry dates, advantage of consulting a medical practitioner in contrast to a pharmacist at medical stores and pros & cons of self-medication as a whole, would definitely help balance this concept.

KEYWORDS : self-medication, prescription-only drugs, over the counter(OTC) drugs

INTRODUCTION

Self-care has been defined by World Health Organization (WHO) as activities undertaken by individuals, families & communities for managing health and health related problems.[1] An essential component of self-care is 'self-medication'. Self-medication (SM) is an age old practice and has gained tremendous global importance in the recent past, due to its rising prevalence and because it not only reduces the burden on health services effectively, but also improves compliance of patients and consequently the disease outcome.[2] It can be defined as the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent/ continued use of a prescribed drug for chronic or recurrent disease or symptoms.[3]

Promoting a sense of responsibility in an individual about their own health through health education and making them aware that professional care is not necessary for minor illness are the keys that lead to this concept.[4]In 1978, the Declaration of Alma-Ata recognized the involvement of individuals in achieving the optimum health. Also, in 1986, The Ottawa declaration emphasized the central role of individuals and communities in contributing to health.[5] Self-medication is a tool to accomplish this.

Unfortunately, now-a-days, health is being commoditized and pharmaceuticalized. Health is being treated as a state which can be maintained by consumption of medicines, if one has the capital to invest. People conveniently *"reach for the pill"* at the first sign of ill health. It has become a common practice for patients to use medicines without the supervision of healthcare professionals. This limits the opportunity for ongoing patient follow-up & safety monitoring, thereby increasing the risk of premature abandonment of treatment, up-titration leading to potentially dangerous dosing, and wastage of medication. Conversely, incomplete information by the patient about the self-administered drugs during reconciliation can cause unintended drug interactions, failure to apprehend adverse drug events and redundant therapy. This consequently increases the health-care costs.[6]

Furthermore, drug resistance has become a worldwide concern. Irrational use of antibiotics has resulted in the spread of resistant pathogens, termed as "nightmare bacteria" which pose a "catastrophic threat" across the continents.[7,8] Great English philosopher-physician Sir William Osler has rightly said that *"one of the first duties of the physician is to educate the masses when* ***not*** *to take the medicines"*. Ironically, the concept of 'Rational' and 'Responsible' self-medication is drifting towards an 'Irrational' and 'Indiscriminate' use of drugs.

Focusing on India, we see that there is no separate over the counter (OTC) category. In spite of the existing rules & regulations, in the absence of a clear definition & legal recognition to OTC products & ease of access to various medications, it seems difficult to curb the rising tendency towards self-medication. Various community-based studies have determined the prevalence of self-medication in India ranging from 12% to as high as 73%.[9,10] Recently, the Drugs Consultative Committee (DCC) has decided to define, classify and lay down specific provisions for the regulation for approval, distribution & sale of OTC drugs in the country.

Various studies are being conducted targeting self-medication. The objectives of this study were to evaluate the practice of self-medication in the patients attending the OPD of Nalanda Medical College & Hospital, Patna. An attempt was made to find out the indications, reasons, category of drugs used, source of information for self-medication, knowledge about the purchased medicine and public opinion regarding self-medication practice was also examined.

MATERIALS AND METHODS

A questionnaire based cross-sectional study was conducted involving face to face interviews amongst the patients attending outpatient department of Nalanda Medical College & Hospital, Patna. It was a 4 month study from April 2019 to July 2019. The purpose and details of the study were explained to the patients prior to the initiation of data collection. Those who were willing to participate in the study and gave informed consent, with address proof of residency in Bihar, who understood Hindi or English were eligible to participate in the study. Those having communication problem, severe illness or mentally challenged were excluded from the study. On behalf of children below 12 years of age, response to the questionnaire was obtained from their parents.

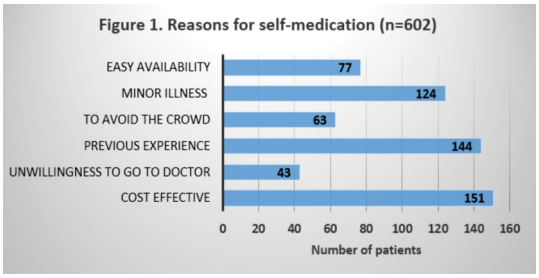
Self-medication for this study was considered as the use of medicines in the last 4 months for which a doctor was not consulted. A total of 1150 patients were approached and out of them 602 (52.3%) were found to be practicing self-medication and were included in our study. Descriptive data analysis was done & reported in frequencies and percentage.

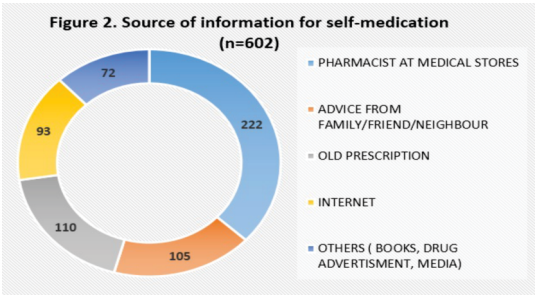
RESULTS

Among 602 participants, the frequency of self-medication was found to be once in 39% (234/602) of the patients, twice in 26.4% (159/602), more than twice in 22% (133/602) of the patients while 76 (12.6%) of them were not sure.

Table 1. Demographic characteristics of the study group(n=602)

DEMOGRAPHIC FACTORS	CATEGORIES	FREQUENCY(%)
GENDER	Male	387(64.3)
	Female	215(35.7)
AGE	<20 years	48(7.9)
	20-35 years	191(31.7)
	36-60 years	296(49.2)
	>60 years	67(11.1)
EMPLOYMENT STATUS	Employed	294(48.8)
	Unemployed	198(32.8)
	Student	67(11)
	Farmer	43(7)
EDUCATIONAL LEVEL	Illiterate	83(13.7)
	Primary	82(13.6)
	High School	165(27.4)
	Intermediate	133(22)
	Graduate	115(19)
	Post Graduate	24(4)





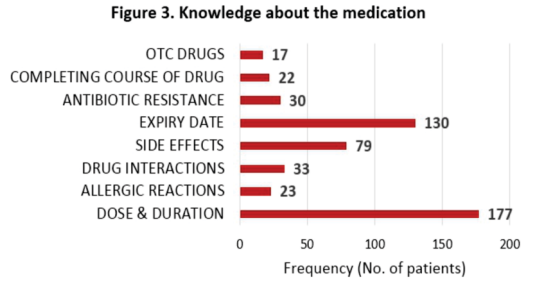


Table 2.Indications for self-medication (n=776)

INDICATIONS	FREQUENCY(%)
Pain (Headache,Musculoskeletal etc.)	248(31.9)
Fever	96(12.3)
Vomiting	61(7.9)
Loose Motions	90(11.6)
Cough/Cold/URTI	130(16.8)
Constipation	19(2.4)
Weakness	27(3.5)
Acidity	94(12.1)
Others(Eye/ENT/Skin Problems)	11(1.4)

Table 3. Drug classes used for self-medication (n=1043)

DRUG CLASS	FREQUENCY(%)
Analgesic & Antipyretics	360(34.5)
Antacids & Other Gastrointestinal Drugs	268(25.7)
Antibiotics	220(21)
Antihistaminics	128(12.3)
Multivitamins	35(3.3)
Others (ORS, Probiotics, Corticosteroids, Lozenges etc.)	32(3)

Paracetamol(19%) was the most common self-medicated analgesic antipyretic, Amoxycillin(16%) was the most common antibiotic while Cetirizine(10%) was most common antihistaminics (12%). Consumption of ORS was more common for diarrhoea as compared to vomiting. ORS power was not even dissolved in 1Litre of water by 18.6%(112/602) of the patients.

Opinion about the practice of SM was also sought and we found that 61.5%(370/602) of the participants believed that it is an acceptable practice in case of minor illness, 61 of them considered it a good practice and should be encouraged while 122 participants thought it should be avoided. 49 participants did not have any view about this.

DISCUSSION

The prevalence of self-medication in our study was found to be 52.3% (602/1150). A study done by Saharan in Mumbai reported self-medication prevalence of 85% which is higher than present study while in a study by Saba *et al* at Bengaluru, prevalence rate of self-medication was found to be 40.5%.[11,12]

Our study showed that cost (25%), past experience with similar illness (24%) were the main reasons for SM. Our result is similar to studies done in Bangladesh which reported cost saving as reason other than minor illness for practicing self-medication.[13] This finding is in contrast with another recent survey that revealed common reasons for self-medication as ailments being minor (85.2%).[14,15]

The indications for which majority of the individuals self-medicated was pain (32%) followed by cough and respiratory infections (17%). Similar to our result, pain & respiratory infections were the top symptoms in a study from urban and rural population of Islamabad and another study conducted in Mumbai.[15,16] While in a study from urban & rural areas of Bangladesh, Western Nepal and Mumbai, pain (17%) and fever (15%) were the main symptoms.[11,13,17] Our study revealed that pharmacy shop (39%) was the main source of obtaining drugs for self-medication followed by old prescriptions (18%), similar to other studies from rural Tamil Nadu & Pune.[16,18]

We found analgesics (34%) to be the most commonly used drug for self-medication similar to findings in other studies.[14,16,17,19] In contrast to our study, the next commonly prescribed medication was Vitamins & Minerals in a study conducted in Pune.[16] Our study found that consumption of ORS was more common for diarrhoea than vomiting and 18% of the respondents did not follow proper directions to dissolve and use the ORS powder. Therefore, awareness about proper ORS usage is necessary.

CONCLUSION

In order to address the disadvantages of self-medication and to understand the public perspective and increase their knowledge about responsible self-medication, we need to have a clear picture of the factors influencing self-medication. We found that more than one-third of the individuals practiced self-medication. Integrated efforts on the part of the individuals and communities as well as health care facilities and regulatory bodies are crucial steps towards attainment of rational & responsible self-medication.

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