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Original Research Paper

Pharma

PERCEPTION AND PRACTICE OF SELF-MEDICATION AMONG UNDERGRADUATE STUDENTS OF A MEDICAL COLLEGE AND TERTIARY CARE HOSPITAL OF ARUNACHAL PRADESH

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ABSTRACT Self-medication is one of the rapidly growing areas of concern to medical professionals, government and the general public. Self medication without proper information and knowledge could be hazardous not only to the patient but also to the person who was being advised. Therefore, this study was taken to determine and analyse the prevalence and pattern of self-medication and to evaluate the factors associated with practicing self-medication behaviour among the undergraduate students of a Medical college in Arunachal Pradesh. All students, who gave consent filled up a pre-designed, semi-structured questionnaire with questions regarding demographic information, phase of MBBS, awareness on SM, indications for SM, sources of information, etc. The study observed that 94% of the students practiced self-medication. The most common reason for practicing self-medication was convenience (39.87%). But the students also believed that the high risk of adverse reaction (52.9%) is one of the disadvantages of self-medication. The most commonly used drug group was antipyretics (90.2%). Academic knowledge (42.5%) and experience (33.3%) were the major sources of information.The students practiced self-medication mostly for fever (73.86%) followed by headache (39.2%).Thus, the study can be concluded that even though most of them had the knowledge of the adverse effects that are associated with self medication,its practice is highly prevalent among medical students due to their academic and clinical exposure.

KEYWORDS : Medical, students, self-medication.

INTRODUCTION:

Self-medication (SM) involves acquiring medicines without a prescription, resubmitting old prescriptions to purchase medicines, sharing medicines with relatives or members of one's social circle or using leftover medicines stored at home. Self-medication thus forms an integral part of self-care, which can be defined as the primary public health resource in the health care system. Self-medication is one of the rapidly growing areas of concern to medical professionals, government and the general public. [1] The people feel they can manage minor illness by themselves, given adequate information and avoid the inconvenience of visiting the doctor.[2].

Studies revealed that there is an increase in self-medication practice which can be due to many factors like socioeconomic factors, lifestyle changes, readily accessible drugs, social media, increase potential to manage minor illness through self-care etc. [3] The World Health Organization (WHO) has pointed out that responsible SM can help to prevent and treat minor ailments and can provide a cheaper alternative for treating common illnesses.[4]

Selfmedication is like a double-edged sword which helps the patient by empowering them to take medicine themselves whereas on the other hand it also harms the patient from wrong diagnosis, irrational use of drugs and increase adverse events. Self-medication should be practiced only with proper and authentic medical information to avoid wastage of resources, increased resistance of pathogens and serious health hazards.[1]

Self-medication is a widely prevalent practice in India and the incidence is higher among medical students. They are different from the general population as they are exposed to academic and clinical knowledge about the diseases and drugs. This gives a higher tendency to practice self-medication among medical professionals. The easy accessibility to drugs and access to information from drug indices, literature and seniors increases the likelihood of self-medication among medical students.[5] The practice of self-medication among doctors develops during their training period as obvious from some studies of self-medication among medical students. These studies have reported high prevalence ranging from 57.7% to 76%. [6,7]The students during their MBBS course are half baked and self medication could be dangerous for them as well as the people advised by them, if not properly practiced.

Thus, this study has been taken to evaluate the prevalence and pattern of self-medication among the medical students of a new and only Medical college of Arunachal Pradesh, India.

Objectives:

To determine and analyse the prevalence and pattern of self-medication and to evaluate the factors associated with practicing self-medication behaviour among the undergraduate students of a Medical college in Arunachal Pradesh.

MATERIALS AND METHODOLOGY:

The study was a cross-sectional study conducted among the Undergraduate Students of Tomo Riba Institute of Health and Medical Sciences, Naharlagun, Govt. of Arunachal Pradesh after approval of the Institutional Ethics Committee

Since the study was conducted in a new Medical College of Arunachal Pradesh with 50 students in each batch, the total students in all the batches were 200. All students, who gave consent for participation in the study, formed the study population. A pre-designed, semi-structured, questionnaire was used, after pretesting. It contained questions regarding demographic information, phase of MBBS, awareness on SM, indications for SM, sources of information, drugs used for SM, reasons for SM, advantages and disadvantages of SM etc.

Statistical analysis was performed using MS excel and results were expressed as frequencies and percentages.

RESULTS:

A total of 153 students out of 200 responded to the questionnaire (76.5%). Among these 153 students, 41(27%), 48(31%), 34(22%), 30(20%) belonged to Phase I, Phase II, Phase III part 1 and Phase III part 2 respectively. The study observed that 94% of the students practiced self-medication. (Table 1)

Table 1: Prevalence Of Self Medication

Phases of MBBS	Practicing self-medication Number (%)		Total N=153
	Yes	N	No (%)
Phase I	37 (90.2)	4(9.7)	41(26.80)
Phase II	46(95.8)	2(4.1)	48(31.37)
Phase III Part 1	32(94.1)	2(5.8)	34(22.22)
Phase III Part 2	29(96.6)	1(3.3)	30(19.61)
Total	**144(94%)**	**9(6%)**	**153(100%)**

Table 2: Awareness And Practice Of Self Medication

Variables	Frequency	%
Any first-degree relative working in Medical/ Pharmaceutical job? (Yes)	105	68.6
Self-medication meaning (Yes)	152	99.3
OTC meaning (Yes)	91	59.5
Could name some Drugs for fever (Yes)	149	97.4
Could name some Drugs for pain (Yes)	143	93.5
Could name some Drugs given only against prescription (Yes)	68	44.4
Have you repeatedly used a single prescription (Yes)	56	36.6
Have you used other's prescription for SM (Yes)	20	13.1
Advised medicine to others without doctor's advice (Yes)	54	35.3
Do you think it is appropriate to practice self- medication? (Yes)	62	40.5
Do you think self-medication will improve the quality of life? (Yes)	68	44.4
Frequency of doctor consultation		
Very frequently	4	2.6
Frequently	24	15.6
Occasionally	63	41.1
Rarely	43	28.1
Never	3	1.9

Out of 153 respondents, 105 (68.6%) had a first-degree relative working in the medical or pharmaceutical job. 99% of the respondents knew the meaning of self-medication and 59.5% had knowledge of over the counter (OTC) drugs. Majority of them could name drugs for fever (97.4%) and pain (93.5%) but only few (44.4%) could respond correctly on drugs given against prescription only. 36.6% had used the same prescription repeatedly while a few of the students (13%) have even used other's prescription for self medication. About one third of the respondents (35.5%) have advised medicines to others without consulting any doctor. When asked if self-medication was an appropriate practice, 40.5% responded positively and 44.4% believe that self-medication can improve the quality of life. Less than half of the respondents (41.18%) visited a doctor occasionally for their illness. (Table 2)

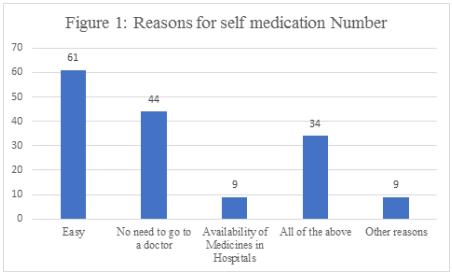

Figure 1: Reasons for self medication

Table 3: Advantages Of Self Medication

Advantages	Number	Percentage (%)
No need to visit doctor or hospital for minor illness	86	56.2
Time saving	44	28.7
Easy & convenient	44	28.7
Quick relief	23	15
Cost effective	21	13.7
Emergency treatment	12	7.8
Helps in learning	8	5.2
Initial treatment before doctor's treatment	6	3.9
Privacy	4	2.6

Table 4: Disadvantages Of Self Medication

Disadvantages	Number	Percentage (%)
Risk of adverse reactions	81	52.9
Risk of using wrong drug	31	20.2
Risk of using wrong dose/dosage	27	17.6
Incomplete treatment or worsening of disease	18	11.7
Risk of wrong diagnosis	12	7.8
Risk of development of antibiotic resistance	9	5.8
Risk of drug abuse	5	3.2

The most common reason for practicing self-medication was convenience (39.87%). The students responded that the most important advantage (56.2%) and one of the reason (28.76%) for self-medication was avoiding the trouble of visiting a doctor for minor illness. But the students also believed that the high risk of adverse reaction (52.9%) or the risk of using wrong drug (20%), dose or dosage (17%) are the disadvantages of self-medication. (Table 3,4)

Academic knowledge (42.5%) and experience (33.3%) were the major sources of information (Figure 2). The most commonly used drug group was antipyretics (90.2%), followed by analgesics (25.5%). The antipyretic of choice was paracetamol and the most used analgesic was aceclofenac followed by aspirin (Table 5). The students practiced self-medication mostly for fever (73.86%) followed by headache (39.2%). (Table 6)

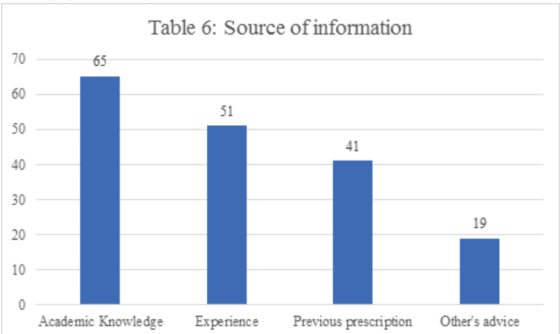

Figure 2: Source of information

Table 5: Drugs Used For Self Medication

Drugs	Number	Percentage
Paracetamol	138	90.2
Analgesic	39	25.5
PPI/H2 Blockers/Antacid	35	22.8
Antimicrobial	18	11.7
Cough syrup/lozenges	18	11.7
ORS/antidiarrheal	16	10.4
Miscellaneous	30	19.6

Table 6: Indications For Self Medication

Indications	Number	Percentage (%)
Fever	113	73.86
Headache	60	39.22
GI symptoms		
Acidity	23	
Vomiting	8	
Constipation	7	
Total	**38**	**24.83**
Pain abdomen		
Dysmenorrhea	10	
Stomachache	10	
Total	**20**	**13.1**
Common cold/ sore throat		
Cold	37	
Sore throat	5	
Total	**42**	**27.45**
Diarrhoea	29	18.95
Cough	27	17.65
Other pain (Body ache, toothache, injury etc)	49	32.03
Miscellaneous (Weakness, allergy, skin infection etc)	19	12.42

DISCUSSION:

Medical students have an increased tendency for self-medication because of their exposure to medical knowledge, seniors with experience and drug availability. This study was conducted in a new and only Medical college of Arunachal Pradesh, India among the first four MBBS batches of the college.

The prevalence of self-medication in our study was very high with 94%. It is observed that medical students start relying on self-medication during their initial period of training itself. The higher trend might also be due to easy availability of the medicines in the hospital and nearby pharmacies. Other studies of India also reported higher self-medication practices.[8,9,10,11,12]

The final year students were more prone to self-medication which might be due to their knowledge of medicines and more exposure to clinics.

The participants had knowledge on the various drugs used commonly and over the counter drugs but many of them used them irrationally. The repeated use of single prescription or using other's prescription for self-medication are some common practices which might be harmful in future. The similar finding was found in the study by Ehigiator O [13] where 59.2% of the participant reused old prescription.

The participants in the study found self-medication convenient and easier, avoiding the inconvenience to wait in queues to visit a doctor and is time saving in providing relief from minor ailments. Other studies also observed the similar reasons for practicing self-medication. [10,12,14,15] The students were aware of the adverse events of irrational drug use due to wrong drug, dose or diagnosis and that it may also worsen the disease condition, but still they preferred to take the risk and avoid consulting a doctor for minor illness. This is concerning as many conditions initially appear mild but wrong diagnosis or treatment may lead to serious health hazards not only to themselves but also to the family and friends seeking their advice.

Since, the students had knowledge of pharmacology from their 2nd year, the main source of information for self-medication in our study was academic knowledge. However, this knowledge would only be objective and partial without much clinical experience. On the contrary, in other studies previous prescriptions, [14,16] seniors [8] and family/friends [9] were their primary source of information.

The common drug groups used included antipyretics (Paracetamol), analgesics, antacids etc. This is also in accordance with other studies. [18-23] Conversely a study carried out in West Bengal reported antibiotics as the commonest drug used for self-medication.[12]

Fever, headache, gastritis were the common conditions that were self-treated by the students which was analogous with the findings of other workers. [6,8,9,10,11,14,16] This could be due to the reason that these conditions are minor illness and the medicines were easily available as over the counter drugs.

CONCLUSION:

Thus, it can be concluded that self-medication practice is highly prevalent among medical students due to their academic and clinical exposure during the study course. However, even though most of them had the knowledge of the adverse effects that are associated with self medication, they still indulge in this practice. Irrational use of drugs due to self medication has the potential to cause serious harm, not only to themselves but also to those who have been advised by them. Although the self-medication practice is inevitable, various measures can be taken to discourage and ensure awareness among the students. There is great role of the drug regulatory authorities to give a check and the Institution to sensitize the students regarding irrational drug use and their adverse effects.

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