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## **Research Article**

### **STUDY OF THE PATTERNS AND PRACTICES OF SELF-MEDICATION FOR SKIN DISEASES AMONG UNDERGRADUATE MEDICAL STUDENTS-A STUDY FROM MEDICAL INSTITUTE IN NORTH INDIA**

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#### **ABSTRACT**

**Background:** Self-medication is certainly not an uncommon phenomenon. After the advent of easy availability of medicines, it has been widely misused in the name of self-care. It is prevalent all around us mostly due to lack of knowledge, resources and specialist facilities. The general population may rationalize this behavior owing to lack of information or insight. But medical students are the most privileged in the aspects of healthcare and knowledge. Seeing this, we chose to study the practice of self-medication in the well informed medical students.

**Aims and Objectives:** To ascertain the determinants of pattern of use and perception about self-medication for skin conditions by undergraduate medical students in a tertiary care institute in North India.

**Material and Methods:** An exhaustive questionnaire comprising of multiple aspects to assess the outlook of medical students regarding self-medication was formed. Around 420 undergraduate medical students from the fields of MBBS, BDS, Nursing and Pharmacy were enrolled in the study and asked various questions about self-medication. The average scores and frequency of occurrence of particular behaviors among different categories of respondents were

seen using appropriate statistical tests. In depth interviews were conducted with the medical students.

**Results:** We noted that 65.7% medical students had opted for self-medication for Dermatology in the last one year. The general notion was that, 256 (62.3%) students believed skin conditions to be minor illnesses leading them to adopt self-medication. The commonest skin conditions leading to self-medication were skin allergies, amounting to 51.1% (193) students taking self-medication for the same. Expectedly, 44.3% (182) students believed that their self-confidence is the reason they opt for self-medication in dermatology. Course text books (45.2%), local chemist (29.5%) and classroom teaching (41.2%) were the major sources of knowledge for them in opting for self-medication. It was seen that 217 (61.6%) students stopped or decreased dosage after they felt better, while 37.2% (153) stopped only after complete recovery. Only 38 students (9.2%) completed the entire course of treatment. Surprisingly the students were fully aware of their lack of knowledge (52.2%) about the depth of dermatology and that it can lead to a damaging misdiagnosis (50.2%).

**Conclusion:** The practice of self-medication is highly prevalent among undergraduate medical students due to their exposure to knowledge and easy availability of drugs. There is lack of regulation regarding over the counter distribution of drugs. Minimal exposure to the subject of Dermatology in their study course has led to lack of orientation of students.

**Keywords:** Self-medication; Dermatology; Undergraduate medical students

## INTRODUCTION

The medical fraternity students are the fortunate elite clan to have been dwelling in education and knowledge in the former few decades of their life. They have the rightful access to all kinds of medical knowledge and services. This heightened sense of awareness towards medical knowledge and easy an access to medical services around them, has led to a phenomenon known a self- medication

Self-medication is a huge public health concern in today's scenario. The WHO now defines self-medication as 'the use and selection of drugs by individuals to treat self-diagnosed diseases or illnesses' [1]. Simply put it denotes the consumption and use of medicines without the consultation of a physician [2].

Moreover, the phenomenon of self-medication is rampant in the field of dermatology [3]. Skin conditions are the most apparent ones as they are right on the surface. Easily visible, they are a cause of major concern particularly in the younger generation. When this generation is armed with a half-baked knowledge of medical diseases, things can go out of hands. They usually perceive skin problems as self-limiting and mild, which makes them choose self-medication for themselves. This behavior of the society has increased alarmingly in the recent years [4].

Our study is thus undertaken and designed to identify the patterns and prevalence of self-medication for skin diseases in undergraduate medical students.

### **Objectives**

To ascertain the determinants of rate and pattern of use self-medication for skin conditions by undergraduate medical students and to explore their opinion regarding self-medication.

## **METHODOLOGY**

Across- sectional questionnaire based survey was done and the undergraduate medical students who were in their 3<sup>rd</sup> year of studies (having completed the subject of Pharmacology) up to the Interns, were enrolled from the fields of MBBS, BDS, B. Pharma and BSc Nursing studying at MMIMSR, Mullana. The sample size of 420 students was decided. This was calculated on the hypothesis testing method considering the following assumption: taking 95% confidence interval, assuming prevalence of self-medication among college going students to be 50%, error of 5% and 10% non-response rate. Systematic sampling was done where every 3<sup>rd</sup> student out of each year in the course was chosen until the desired number was attained. The average scores and frequency of occurrence of particular behaviors among different categories of medical students was seen using appropriate statistical tests.

In depth interviews were conducted for qualitative study regarding self-medication. The students who were practicing self-medication (as seen from questionnaire) were enrolled in this study. IDI's were stopped when new information stopped emerging.

## **RESULTS**

Around 420 undergraduate medical students from the fields of MBBS, BDS, Nursing and Pharmacy were enrolled in the study and asked various questions about self-medication. Table 1 shows the demographic of the medical students. Students in the study had almost equal gender distribution with 48.8% females and 51.2% males. Most of the students (68.2%) were between the age group of 21 to 23 years. 140 students (33.4%) were from the field of MBBS, 104 students (24.8%) were doing BDS, 88 were B. Pharma students and 87 were doing B.Sc nursing. Thus we managed to procure a varied study population mixed with under graduate medical students from all fields of study. It is to be noted that 82 (46.1%) students had completed their degree and were doing internship in their respective courses. 24.7% students were in their third year having recently passed the subject of pharmacology.

**Table 1.** Educational background of the students.

<b>Education Stream</b>	<b>Number of Students</b>	<b>%</b>
MBBS	140	33.4
BDS	104	24.8
B. Pharma	88	21
B.Sc Nursing	87	20.8
<b>YEAR OF STREAM</b>	<b>Number of Students</b>	<b>%</b>
Second year	24	13.5
Third year	44	24.7
Fourth year	28	15.7
Intern	82	46.1

So, having read pharmacology was the binding thread between the students belonging to these varied disciplines of medicine.

Table 2 depicts that 61% students (259) took self-medication for skin conditions as the immediate response, 56% (237) consulted doctor for the same. 92 patients (21.7%) waited till symptoms subsided, 59 patients (13.9%) went to the local chemist and 48 (11.3%) students took suggestions from friends and family. for 209 (50.6%) students, the source of information was their previous prescription. For 45.5% (188) and 41.2% (170) students, the sources of information were course textbooks and classroom teachings respectively. 29.5% (122) students asked the local chemist for information. 23.2% (96) asked friends and family and 13.3% (55) students used TV/internet as source of information.

**Table 2.** Immediate response on getting skin symptoms and the source of information.

<b>Immediate Response on Getting Skin Symptoms</b>	<b>Number of Students</b>	<b>%</b>
Consult doctor	237	56
Consult local chemist	59	13.9
Self-medication	259	61
Suggestion from friends/family	48	11.3
Wait till symptoms subside	92	21.7
<b>Source of Information for Self-medication</b>		
<b>Source of Information of the Drugs Used for Self-medication</b>	<b>Number of Students</b>	<b>%</b>
Classroom teaching	170	41.2
Course textbook	188	45.5
Local chemist	122	29.5
TV/Internet	55	13.3

Previous prescription	209	50.6
Friends/family	96	23.2

The reason for using self-medication for skin diseases are depicted in Table 3. It was seen that 256 (62.3%) students thought of skin conditions as minor illnesses. 46% (189) and 31.15% (128) students considered it time saving and convenient respectively. 44.3% did it because of self-confidence. 46% thought of it as time saving. 36.7% students took self-medication for quick relief. 22.4% took it as a learning opportunity, 18.1% as cost saving and 14.6% to avoid crowd.

**Table 3.** Reasons in favor of using self-medication.

Reasons in Favor of Self-Medication	Number of Students	%
Minor illness	256	62.3
Quick relief	151	36.7
Time saving	189	46
Self confidence	182	44.3
Economical	66	16.1
Learning opportunity	92	22.4
Crowd avoidance	60	14.6
Cost saving	76	18.5
Convenience	128	31.1
Lack of trust in doctors	17	4.1

Table 4 shows that the common involved skin diseases for adoption of self-medication were skin allergy in 51.1%, acne in 44.9%, fungal infection in 43%, bacterial infections in 24.7%, hair disorders in 22%, viral in 18.3% and parasitic infections in 14.6%.

**Table 4.** Commonly involved diseases for self-medication.

<b>Diseases Leading to Self-medication</b>	<b>Number of Students</b>	<b>%</b>
Acne	173	45.9
Skin allergy	193	51.1
Hair disorders	83	22
Nail disorders	30	8
Bacterial skin infections	93	24.7
Viral	69	18.3
Fungal	162	43
Parasitic	55	14.6

## DISCUSSION

Self-medication is certainly not an uncommon phenomenon. After the advent of easy availability of medicines, it has been widely misused in the name of self-care. It is prevalent all around us mostly due to lack of knowledge, resources and specialist facilities. The general population may rationalize this behavior owing to lack of information or insight. But medical students are the

most privileged in the aspects of healthcare and knowledge [5]. Seeing this, we chose to study the practice of self-medication in the well informed medical students.

In the medical curriculum, Dermatology is not an essential subject. There is no fixed format of teaching Dermatology to the medical students, due to lack of regulations regarding the same. Dermatology is overlooked in the vast subject of medicine and ends up getting ignored in the undergraduate training. Moreover, there is no formal exam or assessment of this subject during undergraduate training. Due to this deficit, none of the medical undergraduates are oriented to the subject. Thus we chose to study self-medication in medical students exclusively for the dermatological conditions.

Our study was undertaken to assess the perception and practice of self-medication in Dermatology among medical students in Maharishi Markandeshwar Institute of Medical Sciences. For this, an exhaustive questionnaire comprising of multiple aspects to assess the outlook of medical students regarding self-medication was formed.

It was seen that a vast majority of students had opted for self-medication in the last one year. So it can be clearly seen that the majority of medical student fraternity is resorting to self-medication as their reflex response on getting sick, even though they may have other suitable options. Thus, self-medication for Dermatology is highly prevalent even though these students are living in a medical university and are surrounded by specialists who can guide them better.

### **Perception about skin diseases**

Dermatology is a complex science but most of the time skin conditions are underestimated to be trivial and are taken very casually [6]. Skin conditions hardly ever owe a threat to life and never hamper everyday living. This misconception and relaxed approach towards skin symptoms is one of biggest factors leading to self-medication. “This is nothing, I don’t really worry about these small rashes”, a 19 year old MBBS student said. This opinion was mirrored by many other students.

Another attribute of skin symptoms is that they respond very well and almost instantly to potent steroids which are rampantly dispensed everywhere. The ease, at which the response to steroids occurs, encourages the students to use them to relieve their symptoms. “I usually apply some cream and get relieved easily”, a 21 year old dental student was quoted saying.

Another trait that sets skin conditions apart is their bothersome nature of being chronic and repetitive. These conditions heal slowly and keep recurring with time. This causes undue distress and impatience to the patients. The results are not seen rapidly and despite multiple specialist consults, their expectations are not met. “I know the drug that the doctor will give, I simply go and purchase that it”, a 20 year old B. Pharma told. As a result it was rightly seen that students



were using their old doctor's prescription to procure medicine, owing to the annoying recurrence of symptoms.

### **Apparent knowledge about medicines**

Most of our study population is interns. They have recently passed their degree and are certainly brimming with knowledge. They are young and confident, with less realization of right and wrong. They have just begun their medical careers and their enthusiasm is at its peak. They are already of the mindset that skin conditions are minor illnesses. For them the effort to take specialist opinion when they already have a basic knowledge makes little sense.

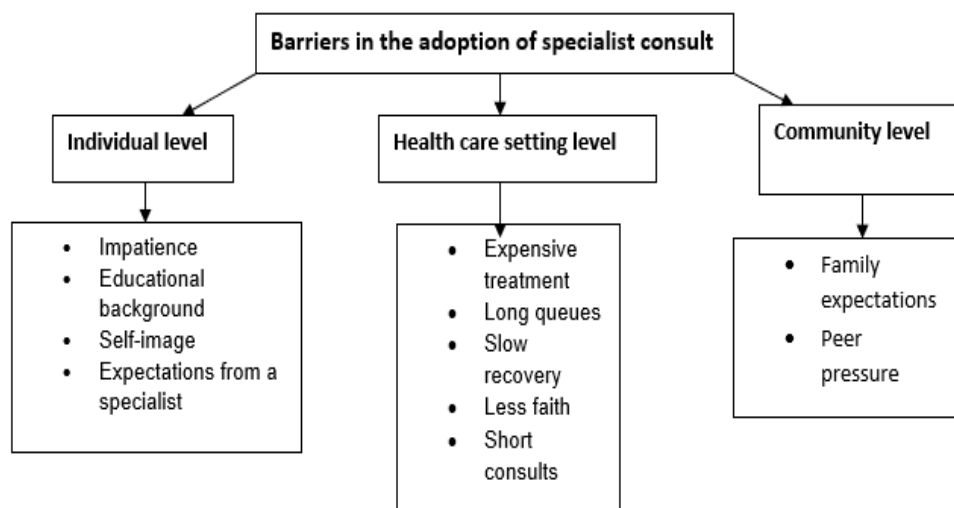
Thus expectedly, the students believed that their self-confidence is the reason they opt for self-medication in dermatology. "I try to treat the simpler diseases on my own", an MBBS Intern remarked.

Being surrounded by medicines, specialists and patients all around, it was seen that they had a dearth of sources for information. They confidently stated that course text books and classroom teaching were the major sources of knowledge for them in opting for self-medication.

Another observation was the unreasonable expectations the students faced from their family and friends. The fact that they were in the medical field created a sense of belief that they can now diagnose and treat. This undue pressure from peers compels the students to meet these expectations and prescribe medicines with little practice.

Living in a medical university, surrounded with specialists, patients and a sea of knowledge is a unique experience. Carrying out daily activities in such a community, the students have the closest proximity to chemists than the outer world. It was duly noted that the major source of information and procurement of drugs was the local chemist shop in their premises. Despite having close access to dermatologists in their vicinity, students found it easier to rather ask the local chemist for the dose and details of the medicine. A nursing student rightly said, "I live right next to the chemist, which is open 24 hours. The OPD has such limited timings and we have to skip class to get the prescription". The inherent human nature of opting for the easier option can be clearly seen in this scenario.

Figure 1 summarizes the barriers that were noted in the adoption of specialist consult by medical students. These reasons have been divided into individual barriers, barriers at the health care level and at the community level.



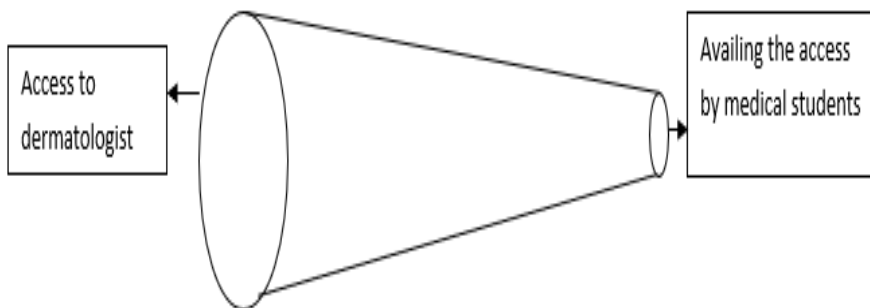
**Figure 1.** Barriers in the adoption of specialist consult for skin diseases.

### Perception about doctors and dermatology

Gone are the days when doctors were idolized, looked up to and put on the pedestal as healers. Today, the same amount of respect is not given to them rather they are tagged as being greedy. This has become a generalized notion. Our medical students despite being in the same field look upon specialists with doubt about their intentions. “Skin is a money-making branch”, joked a 23 year old MBBS intern. This perception creates a sense of distrust in the students compelling them to deal with their skin conditions on their own. Moreover, Dermatology is misconceived as being an expensive arena altogether by the general population. Skin treatments are thought to be over priced and the notion is that dermatologists charge exorbitant amounts for their consult.

Due to the inherent chronic nature of skin diseases, patients are often called for regular and frequent follow ups. “They keeping calling again and again”, a dental student complained. It is seen that most patients give up after a few follow ups. This is due to the slow curve of recovery in skin conditions. Thus students stated that taking self-medication for skin conditions is cost saving and economical.

Also, there was a belief in the students that in order to get a specialist opinion, it requires a huge effort to wait for one’s turn due to long waiting lines and crowds at the clinics [7]. “Our class timings clash with the OPD times. We can’t skip classes”, an MBBS final year student said. Thus owing to the long queues of patients in special clinics of the hospitals, students took self-medication to avoid the immense crowd. Figure 2 shows the large gap between the availability of dermatologists and their access by the medical students.



**Figure 2.** The gap between the easy access and availing the facility by medical students.

## CONCLUSION

Our study comprises of the young population, mostly below 23 years. They are at the best time of their youth and they have just begun to take their appearance seriously. This recent zeal to look good compels them to take all kinds of measures to do so.

Skin is the most visible and unconcealed part of our body. There is an urgency to treat skin conditions. The need for quick results and instant fixes is soaring high. This restlessness in students of this age group and the blatant visibility of skin conditions compels them to resort to self-medication.

Thus the practice of self-medication is highly prevalent among undergraduate medical students due to their exposure to knowledge and easy availability of drugs. There is lack of regulation regarding over the counter distribution of drugs. Minimal exposure to the subject of Dermatology in their study course has led to lack of orientation of students.

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