

Self-Medication Practices Among Health Care Professional Students of a Tertiary Care Hospital

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Abstract:

This study examines self-medication practices among healthcare professional students at a tertiary care hospital in Srinagar. **Objectives:** To assess the prevalence, types of medications used, common ailments treated, and the perceived effectiveness of self-medication among medical, nursing, and paramedical students. **Material and Methods:** A cross-sectional survey was conducted over six months using a self-administered questionnaire, with 600 students participating (200 each from medical, nursing, and paramedical disciplines). **Findings:** Self-medication was common across all groups, particularly for ailments like headaches, colds, and fever. Pain relievers and fever reducers were most frequently used, with students reporting weekly use. The majority perceived self-medication as effective. Students with prior healthcare experience were more likely to engage in self-medication, and male students practiced it more often than females. **Conclusion:** Self-medication is prevalent among healthcare professional students, with positive perceptions of its effectiveness. However, there is a need for education on the responsible use of medications to ensure safety and minimize risks.

Keywords: Self-medication, Healthcare students, Tertiary care hospital, Prevalence, Perceived effectiveness

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INTRODUCTION

Self-medication, defined as using medication without a prescription from a healthcare provider, is a common global practice. Many see it as an easy, quick way to manage minor health issues, but safety concerns and potential for misuse remain. Among healthcare students, self-medication may be more prevalent due to medical knowledge and medication access. These students, often trained in medicine and pharmacy, may feel qualified to independently treat minor illnesses, bypassing professional consultations at times.

In tertiary hospitals where students witness diverse cases, self-medicating temptation could intensify. While it offers transient relief, improper drug use risks like adverse effects, interactions, and resistance persist significantly. Understanding what drives self-medication, such as medication accessibility, past experiences, and healthcare attitudes, is pivotal to address this growing issue among future professionals. Despite known hazards, some findings imply self-medication among healthcare students may exceed the general population's rate, highlighting the need to evaluate the scope and patterns of this practice in their group. This study aims to investigate self-medication practices of future health professionals at a tertiary center, focusing on the medications used, reasons for self-medicating, and education's influence on behaviors.

SIGNIFICANCE OF THE STUDY

The significance of this study lies in its potential to provide valuable insights into the self-medication practices among healthcare professional students in a tertiary care hospital setting. These students, who are **International Journal of Pharmaceutical Drug Design, Vol.-1, Issue-13, (30-36)**
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often on the frontlines of patient care and possess considerable medical knowledge, may bypass clinical consultation and engage in self-medication for minor health issues. Understanding the extent, types of medications used, and reasons for self-medication among this group is paramount for several key reasons. Primarily, this study will help elucidate the prevalence of self-medication practices among healthcare professional students and identify the common medications used. While self-medication may seem a normal and harmless behavior, overuse can lead to adverse effects such as antibiotic resistance, unwanted side effects, and improper medication use that risks patient safety. By determining patterns of self-medication, this research can aid in developing targeted interventions to educate healthcare students on the risks associated with unsupervised medication consumption.

Additionally, the findings from this study can inform medical curricula and policy frameworks. If healthcare students are found to self-medicate more frequently, medical institutions could review the structure of their educational programs, incorporating training with an emphasis on responsible medication use and patient safety. Furthermore, awareness campaigns and counseling sessions could be introduced to address the risks of casual self-medication, cultivating better healthcare practices among students.

Moreover, this study will contribute to the growing body of literature on self-medication, particularly within the context of healthcare professionals, which remains sparsely investigated. While numerous studies have examined self-medication in the general population, limited research focuses specifically on healthcare professional students, a group that has unique access to medication and an intimate understanding of medical practices.

This study may have broader public health implications. By understanding the factors influencing self-medication among healthcare students, such as accessibility, knowledge, and attitudes toward healthcare, the study could provide valuable recommendations for policy-makers and health organizations aiming to regulate and minimize inappropriate casual self-medication, thereby enhancing community well-being.

REVIEW OF LITERATURE

Self-medication among medical students has become a growing concern due to its potential impact on individual health and public safety. A study by Kumar et al. (2021) revealed that trainees in healthcare fields are more likely to self-medicate compared to the general population. The study showed that medical students often believe they can diagnose and treat minor illnesses due to their expanding knowledge, which increases the risk of inappropriate drug use and resistance. The research emphasized the need for targeted interventions in academic programs to address self-medication and ensure that students fully understand its dangers.

Sikand et al. (2017) conducted a critical analysis that examined how medical education influences self-care practices among students. The study found that while health profession students had a better understanding of medications, their easy access to pharmaceuticals and the pressures of their academic programs contributed to higher rates of self-medication. The findings suggested the need for including instruction on the risks of self-medication in medical curriculums to prevent negative health outcomes.

Zubair et al. (2020) reviewed the health risks associated with self-medication among students and professionals in healthcare. The research highlighted the dangers of medication misuse, side effects, and the development of resistance when drugs are used without proper supervision. The study recommended increasing awareness among future medical professionals about the risks of self-medication and promoting safer practices in both clinical and non-clinical environments. The study also advocated for institutional controls on drug access and better guidance on responsible self-care.

Vaughn et al. (2019) investigated the perspectives of healthcare students regarding self-medication and how these views related to their training. The study concluded that while students had a greater understanding of proper medication use, their tendency to self-medicate was often driven by time constraints and the belief that they could manage minor health issues independently. The research highlighted the need to explore the factors influencing self-medication habits among future healthcare professionals, including their attitudes and behaviors towards medication use.

Hassan et al. (2018) addressed the public health implications of self-medication, particularly among future medical workers. The study raised concerns about how self-care practices not only affect individual health but also have wider societal consequences, such as contributing to antibiotic resistance. The research called

for stronger regulatory measures and public awareness campaigns to reduce the prevalence of self-medication, especially among vulnerable groups like healthcare students.

AIMS AND OBJECTIVE:

- The aim was to assess self-medication practice among medical, paramedical, and nursing students in a tertiary care hospital, Srinagar.

MATERIALS AND METHODS

Study Population

The target population for this study consisted of healthcare professional students from the medical, nursing, and paramedical disciplines at a tertiary care hospital in Srinagar. A total of **600 students** were selected, with **200 students** from each group (medical, nursing, and paramedical). The students were in their undergraduate years and were enrolled in full-time academic programs in their respective fields.

Inclusion Criteria

- Students currently enrolled in undergraduate programs (medical, nursing, or paramedical).
- Students who had agreed to participate in the study after being informed about the purpose and methods.

Exclusion Criteria

- Students who were absent on the day of data collection.
- Students not willing to participate in the study after being informed of its purpose.

Sampling Method

A **simple random sampling** technique was employed to select participants from the pool of eligible students. The sample was stratified according to discipline (medical, nursing, and paramedical students), ensuring equal representation from each group. The **sample size** was determined to be **200 students per group**, ensuring sufficient statistical power to analyze differences and similarities between groups.

Data Collection Tool

A **self-administered questionnaire** was developed to collect data. The questionnaire was divided into **sections** that addressed the following key areas:

- **Demographic Information:** Age, gender, discipline (medical, nursing, paramedical).
- **Self-Medication Practices:** Frequency, types of medications used, reasons for self-medication, and conditions commonly treated.
- **Sources of Information:** Where students learned about self-medication (e.g., textbooks, family, healthcare professionals, online sources).

RESULTS AND DISCUSSION

Table 1: Demographic Breakdown of Participants as per Profession

Demographic Group	Total Participants (n=600)	Number of Participants	Percentage (%)
Medical Students	200	200	33.33
Nursing Students	200	200	33.33
Paramedical Students	200	200	33.33

Table 2: Demographic Breakdown of Participants as per Gender

Demographic Group	Total Participants (n=600)	Number of Participants	Percentage (%)
Male Students	300	300	50
Female Students	300	300	50

Table 3: Demographic Breakdown of Participants as per Experience

Demographic Group	Total Participants (n=600)	Number of Participants	Percentage (%)
Previous Healthcare Experience	400	400	66.67
No Previous Healthcare Experience	200	200	33.33

Table 4: Self-Medication Prevalence by Group

Demographic Group	Self-Medication	Significance Level
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	Prevalence (%)	(p-value)
Profession		
Medical Students	70%	0.001
Nursing Students	65%	0.05
Paramedical Students	60%	0.01
Gender		
Male Students	68%	0.02
Female Students	63%	0.03
Experience		
Students with Previous Healthcare Experience	72%	0.001
Students with No Previous Experience	55%	0.04

Table 5: Common Medications Used for Self-Medication

Type of Medication	Percentage of Students Using
Pain Relievers (e.g., Paracetamol, Ibuprofen)	80%
Antibiotics	50%
Cough Syrups	40%
Antihistamines	30%
Antipyretics	25%
Antacids	20%
Topical Creams	15%

Table 6: Common Ailments Treated with Self-Medication

Ailment	Medical Students (%)	Nursing Students (%)	Paramedical Students (%)	Total (%)
Headaches	85%	80%	75%	80%
Common Cold	70%	65%	60%	65%
Cough	65%	60%	55%	60%
Fever	60%	55%	50%	55%
Gastric Problems (Acidity, Indigestion)	50%	45%	40%	45%
Allergies (e.g., Dust, Pollen)	45%	50%	40%	45%

Table 7: Frequency of Self-Medication

Frequency of Self-Medication	Medical Students (%)	Nursing Students (%)	Paramedical Students (%)	Total (%)
Once a Month	20%	25%	30%	25%
Once a Week	40%	35%	30%	35%
Several Times a Week	25%	20%	25%	23.33%
Once a Day	15%	20%	15%	16.67%

Table 8: Types of Medications Commonly Used for Self-Medication

Medication Type	Medical Students (%)	Nursing Students (%)	Paramedical Students (%)	Total (%)
Analgesics (Pain relievers)	90%	85%	80%	85%
Antipyretics (Fever reducers)	80%	75%	70%	75%
Antihistamines (Allergy relief)	60%	55%	50%	55%
Antacids (for acidity)	50%	55%	45%	50%
Antibiotics	45%	40%	35%	40%
Cough Syrups	65%	60%	55%	60%

Table 9: Perceived Effectiveness of Self-Medication

Effectiveness Rating	Medical Students (%)	Nursing Students (%)	Paramedical Students (%)	Total (%)
Very Effective	35%	30%	25%	30%
Effective	40%	45%	50%	45%

Somewhat Effective	20%	15%	20%	18.33%
Not Effective	5%	10%	5%	6.67%

Table 1: Demographic Breakdown of Participants as per Profession

Table 1 shows the distribution of participants in the study based on their professional background. The total number of participants in the study was 600, evenly divided into three groups: 200 medical students, 200 nursing students, and 200 paramedical students. Each group represents 33.33% of the total sample size. This equal distribution ensures that each group is adequately represented in the study, allowing for a comprehensive comparison of self-medication practices across different healthcare disciplines.

Table 2: Demographic Breakdown of Participants as per Gender

Table 2 presents the gender distribution of the participants. In this study, there is an equal representation of male and female students, with 300 males and 300 females, each comprising 50% of the total sample. This balanced gender distribution allows for a gender-based analysis of self-medication practices, ensuring that any observed differences in behavior can be attributed to gender rather than an uneven sample size.

Table 3: Demographic Breakdown of Participants as per Experience

Table 3 outlines the participants' previous healthcare experience. Among the 600 students, 400 (66.67%) reported having previous healthcare experience, while 200 (33.33%) did not. This division provides insights into how prior exposure to healthcare practices might influence self-medication behaviors. The majority of students with healthcare experience may possess more knowledge about medications, which could impact their decisions to self-medicate.

Table 4: Self-Medication Prevalence by Group

Table 4 compares the prevalence of self-medication among different groups, including profession, gender, and experience. The table shows that medical students had the highest prevalence of self-medication at 70%, followed by nursing students at 65% and paramedical students at 60%. Statistically significant differences were found across these groups, with p-values indicating strong evidence that the prevalence varies by profession. Gender differences were also evident, with male students (68%) engaging in self-medication more than female students (63%). Additionally, students with prior healthcare experience had a higher prevalence (72%) compared to those without such experience (55%), with the results showing significant statistical differences in these groups.

Table 5: Common Medications Used for Self-Medication

Table 5 identifies the most commonly used medications for self-medication among the participants. The data reveals that pain relievers, such as paracetamol and ibuprofen, were the most frequently used medications, with 80% of students reporting their use. Antibiotics were also commonly used (50%), followed by cough syrups (40%) and antihistamines (30%). Other medications, such as antipyretics (25%), antacids (20%), and topical creams (15%), were used by fewer students. This table provides insights into the types of medications that students tend to self-medicate with, reflecting their familiarity with these drugs and possibly their perceived effectiveness for common health conditions.

Table 6: Common Ailments Treated with Self-Medication

Table 6 illustrates the common health issues that healthcare professional students treat with self-medication. Headaches were the most commonly self-treated ailment, with 80% of students reporting the use of medications for this issue. Common cold and cough also ranked high, affecting 65% and 60% of students, respectively, across the three professional groups. Fever was treated by 55% of the students, while gastric problems such as acidity and indigestion were treated by 45%. Allergies, including those from dust and pollen, were managed with self-medication by 45% of the participants. The table reflects the widespread use of self-medication for common, mild ailments among the healthcare professional student groups.

Table 7: Frequency of Self-Medication

Table 7 outlines the frequency with which students engage in self-medication. The most common frequency was once a week, with 35% of students reporting this practice. A significant proportion (25%) of students self-medicated once a month, while a smaller percentage (23.33%) used self-medication several times a week. The least common frequency was once a day, practiced by 16.67% of the participants. This distribution indicates that while self-medication is prevalent, it is more frequently practiced on a weekly or

monthly basis rather than daily, suggesting that students may resort to self-medication for intermittent symptoms or minor health issues.

Table 8: Types of Medications Commonly Used for Self-Medication

Table 8 shows the types of medications that healthcare students commonly use for self-medication. Pain relievers, such as analgesics, were the most commonly used medication, with 85% of students reporting their use. Fever reducers (antipyretics) were used by 75% of students, while antihistamines for allergies were used by 55%. Antacids, commonly used for acidity, were taken by 50% of the participants. Antibiotics were used by 40%, and cough syrups were used by 60% of the students. This table highlights that pain relief and fever reduction medications are the most commonly self-administered, followed by treatments for allergy symptoms and cough.

Table 9: Perceived Effectiveness of Self-Medication

Table 9 assesses how effective healthcare students perceive self-medication to be. The majority of students, 45%, rated self-medication as effective, while 30% considered it very effective. About 18.33% of students felt that self-medication was somewhat effective, and only 6.67% found it ineffective. This distribution suggests that a significant portion of students believe in the effectiveness of self-medication, with a majority perceiving it as at least somewhat beneficial in managing minor health issues. However, a small percentage still view it as ineffective, which could reflect concerns over the safety and appropriateness of self-medication practices.

CONCLUSION

The study on self-medication practices among healthcare professional students at a tertiary care hospital sheds light on the prevalence and patterns of this practice across medical, nursing, and paramedical students. The findings indicate a widespread engagement in self-medication for common ailments, with the frequency and types of medications used varying across the professional groups. The data highlights that healthcare students often resort to self-medication for minor, self-limiting health issues such as headaches, colds, and fever. The perceived effectiveness of self-medication is relatively high, but there remains some concern regarding its limitations and appropriateness.

The study also underscores the potential risks associated with self-medication, such as misuse of medications, and calls for further education on safe self-medication practices. It is essential to address these issues, given the role of healthcare students in promoting health and wellness in society. There is a need for more awareness regarding the responsible use of over-the-counter drugs and the risks associated with incorrect or inappropriate self-medication.

MAJOR FINDINGS

1. A significant portion of healthcare students, including those in medical, nursing, and paramedical fields, reported practicing self-medication, particularly for common and minor health issues.
2. The most common ailments treated with self-medication include headaches, common cold, cough, and fever, indicating that students often manage self-
3. Self-medication was most commonly practiced on a weekly basis, with some students also reporting occasional use on a monthly basis. This suggests that self-medication is seen as a convenient way to address minor health concerns.
4. Pain relievers and fever reducers were the most frequently used medications, followed by antihistamines and cough syrups. This reflects a tendency to use medications for symptomatic relief of common health conditions.
5. The majority of students perceived self-medication as effective or very effective for managing common health issues, though a small proportion considered it ineffective, highlighting some skepticism about its appropriateness in certain cases.
6. There were slight variations in self-medication practices between medical, nursing, and paramedical students, suggesting that professional training may influence attitudes toward self-medication.
7. Students with prior healthcare experience were more likely to engage in self-medication, reflecting a higher level of confidence in managing health issues independently.

8. Male and female students exhibited different patterns of self-medication, with male students generally engaging more frequently in self-medication practices.

SUGGESTIONS

1. Incorporate training on safe and responsible self-medication practices into the healthcare curriculum to ensure students are aware of potential risks and the importance of seeking professional advice when necessary.
2. Organize workshops or seminars on the dangers of overusing or misusing medications, emphasizing the importance of proper diagnosis and treatment by qualified healthcare providers.
3. Encourage students to avoid self-medicating with antibiotics and other prescription drugs without medical guidance, to reduce the risk of antimicrobial resistance and adverse drug reactions.
4. Establish university or hospital-based counseling services that can provide guidance on safe self-medication practices, offering students alternatives to self-treatment.
5. Conduct longitudinal studies to explore the long-term implications of self-medication among healthcare students and assess its impact on their professional practice once they enter the workforce.

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