

PREVALENCE OF SELF-MEDICATION & ASSOCIATED FACTORS
AMONG NURSING STUDENTS IN KARACHI, PAKISTAN “A
DESCRIPTIVE CROSS-SECTIONAL STUDY

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Abstract**Background**

Self-medication is a common public health issue worldwide, particularly among healthcare students who possess Nursing knowledge and easy access to medications. Inappropriate self-medication may lead to adverse drug reactions, delayed diagnosis, antimicrobial resistance, and increased healthcare burden.

Aim of the Study

The aim of this study is to determine the prevalence of self-medication among Nursing students in Karachi Pakistan.

Methods

A Descriptive Cross-Sectional study was conducted among nursing students enrolled in Generic BSN and Post-RN BSN programs at Allied Institute of Nursing & Health Sciences Karachi Pakistan. A total of 184 students participated in the quantitative phase through convenient sampling; Data was collected using an adopted and validated questionnaire. Data was analyzed using descriptive statistics.

Results

The prevalence of self-medication was 95.3%. Headache (40.2%) and fever (32.5%) were the most common symptoms leading to self-medication. Antipyretics (31.9%) and analgesics (28.4%) were the most frequently used medications. Saving time (26.0%), distance from healthcare facilities (16.6%), and high consultation fees (14.2%) were major reasons for self-medication. Pharmacies (73.9%) were the primary source of medication procurement. Findings revealed that prior experience, confidence in managing minor illnesses, easy access to medicines, and cost-effectiveness were the major contributors to self-medication practices.

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Conclusion

Self-medication was highly prevalent among nursing students. Educational interventions, stricter pharmacy regulations, and improved healthcare accessibility are necessary to promote responsible medication use.

INTRODUCTION

A medication is a drug used to diagnose, cure, treat, or prevent disease. An individual's typical character or behavior. The taking of drugs, herbs or home remedies on one's own initiative, or on the advice of another person, without consulting a doctor. Medication plays a vital role in health care delivery, being an important therapeutic tool in the hands of health professionals.

Even general people throughout world, act on their own for their health by practicing self-medication. (Nabarun Karmakar et al, 2018). WHO defines self-medication as selection and use of medicines by individuals to treat recognized illness or symptoms. Self-medication to distinguish from practice of purchasing and using a prescription medicine without a doctor's prescription. Practice of responsible self-medication is generally considered as safe and effective worldwide; but prescribed drugs dispensed without valid

prescriptions in India is a pitfall in this regard may poses many Nursing and social challenges. WHO is promoting practice of self-medication for effective and quick relief of symptoms to reduce burden on health services.¹² But irrational drug use can cause wastage of resources, increased resistance of pathogens, even serious health hazards. (Nabarun Karmakar et al, 2018).

Human beings have an inherent tendency to self-treat themselves at the first instance whenever they feel unwell. According to WHO, self-medication can be defined as "use of pharmaceutical or medicinal products by the consumer to treat self-recognized disorders or symptoms. (Vineeta Shukla et al., 2021). Due to lack of access to health care facilities many individuals opt to self-treat themselves at home using drugs which can be purchased in local shops without prescription.

The spectrum of self-medication involves acquiring medicines without a prescription that is Over-

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the Counter (OTC) drugs, resubmitting old prescriptions to purchase medicines, sharing medicines with relatives or friends or using leftover medicines stored at home. The internet is the first physician now-a-days for patients seeking health advice. Risks associated with self-medication include lack of clinical evaluation by a health care provider which could result in misdiagnosis and incorrect choice of drugs, delay in seeking appropriate treatments, use of excessive drugs or lower dosage, prolonged duration of use, adverse drug reactions and sometimes even masking of a severe disease. Another serious concern with self-medication practice is the risk of developing antimicrobial resistance (AMR). This is a major public health concern worldwide, especially in developing countries. (Kuntala Ray et al, 2021)

Self-medication (SM) is described as the acquisition and ingestion of one or more drugs without consulting to qualified physician for diagnosis, treatment, or prescription oversight. It encompasses the use of non-prescription medications by individuals without professional guidance. The wide accessibility of diverse drugs and insufficient and unequal healthcare services contribute to a rise in SM practices in developing nation such as India (Sana Ahmed et al, 2024). It is increasingly evident that there is a growing availability of over-the-counter (OTC) medications accessible to the public. The practice of SM with improper usage of drugs could easily result in a variety of complications. The most common and noteworthy among those are adverse drug reactions (ADRs) due to the interactions between various drugs that have been consumed. These side effects encompass various issues, including drug interactions, anaphylactic reactions, impairment of drug tolerance, and the masking of underlying clinical symptoms indicative of serious conditions.

Therefore, there is a pressing need for concerted efforts to address this issue and enhance public awareness regarding the potential adverse effects of Self-medication.

Problem Statement

Self-medication among Nursing students, poses a significant public health concern due to its potential risks, including adverse drug reactions, drug interactions, and delayed diagnosis. Despite

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their knowledge of pharmacology and therapeutics, Nursing students may engage in self-medication due to various factors, such as convenience, lack of time or perceived expertise.

Aim of the Study

- The aim of this study is to determine the prevalence of self-medication among Nursing students at Allied Institute of Nursing & Health Sciences in Karachi Pakistan

Objectives of the Study

- To determine the prevalence of self-medication among Nursing students at Allied Institute of Nursing & Health Sciences in Karachi Pakistan
- To identify the most commonly used medications among Nursing students at Allied Institute of Nursing & Health Sciences Karachi Pakistan.
- To explore the reasons and motivations behind self-medication among Nursing students at Allied Institute of Nursing & Health Sciences Karachi Pakistan
- To identify the sources of information and influences that contribute to self-medication practices among Nursing students at Allied Institute of Nursing & Health Sciences Karachi Pakistan

Research Questions

- What is the prevalence of self-medication among Nursing students in Lyari town Karachi?
- What are the most commonly used medications for self-medication?
- Why do Nursing students engage in self-medication?
- Is there a significance association between self-medication and demographic factors?
- Do Nursing students have adequate knowledge about the risks and consequences of self-medication?

Rationale of the Study

- Self-medication among Nursing students is a significant concern globally, as it can lead to adverse drug reaction, drug interactions, and delayed diagnosis.
- Several studies illustrate that college students' willingness to contact health practitioners to pursue health-related treatment or access other health services is extremely poor (Alshogran et al., 2018).

Significance of the Study

- Self-medication can have serious consequences, including drug reactions, drug interactions and delayed diagnosis.
- Nursing students are future health care providers, and their habits and attitudes towards self-medication can influence their future clinical practices and patients care. Self-medication, if practiced improperly, can lead to serious health risks, including drug interactions, resistance incorrect dosage, and misdiagnosis of underlying conditions.
- By studying Nursing students, the research can raise awareness among both the Nursing community and the general public about the risks and factors leading to self-medications.

Research Methodology

A descriptive cross-sectional study was conducted among nursing students enrolled in the Generic Bachelor of Science in Nursing (BSN) and Post-RN BSN programs at Allied Institute of Nursing & Health Sciences, Karachi, Pakistan. The study was carried out over six months, from October 2025 to March 2026. A total of 184 students were recruited using a convenience sampling technique. Students enrolled in either academic program who were willing to participate and provided written informed consent were included in the study, whereas students who declined participation, were absent during the data collection period, or were unable to provide informed consent were excluded.

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Data were collected using an adopted structured questionnaire consisting of two sections. The first section obtained participants' sociodemographic characteristics, including age, gender, marital status, religion, family size, academic year, and monthly family income. The second section assessed self-medication practices, including prevalence, common symptoms, medications used, sources of information, sources of medicines, reasons for self-medication, and attitudes toward self-medication. Content validity of the questionnaire was established through review by five experts in nursing education and health research. Modifications were incorporated based on their recommendations to improve clarity and relevance. Reliability testing demonstrated good internal consistency, with a Cronbach's alpha coefficient of 0.88. After obtaining ethical approval from the Institutional Review Board of Allied Institute of Nursing & Health Sciences, eligible participants were approached in their classrooms. The purpose of the study was explained, written informed consent was obtained, and questionnaires were distributed and collected immediately after completion. Participation was voluntary, and anonymity and confidentiality were maintained throughout the study.

Data were entered and analyzed using the Statistical Package for the Social Sciences (SPSS) version 26. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were calculated to summarize participants' demographic characteristics and self-medication practices. The findings were presented using tables and figures where appropriate.

Ethical Considerations

Ethical approval was obtained from the Institutional Review Board (IRB). Written informed consent was obtained from all participants. Confidentiality, anonymity, privacy, and voluntary participation were maintained throughout the study.

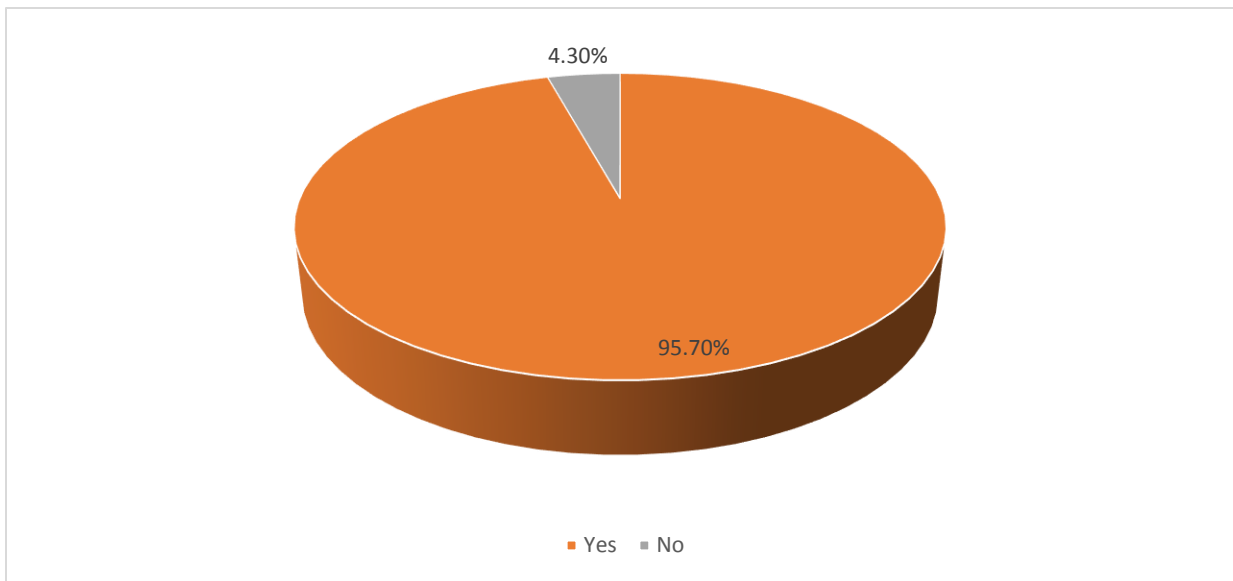
RESULTS

Table-I Demographic Characteristics of Participants (N=184)

Gender	
Male	60%
Female	40%
Marital Status	
Married	28%
Unmarried	68%
Divorced	3%
Widow	1%
Numbers of Family members	
2-3	10%
4-5	33%
>5	57%
Religion	
Muslim	79%
Christian	11%
Hindu	10%
Year of study	
First Year	17%
Second Year	35%
Third Year	14%
Fourth Year	34%

Figure-I Prevalence of Self Medication among Nursing Students

A total of 184 participants (95.3%) reported practicing self-medication during the preceding three months.



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Figure- II Symptoms Leading to Self-Medication

Headache (40.2%) was the most common symptom, followed by fever (32.5%) and common cold/cough (14.2%).

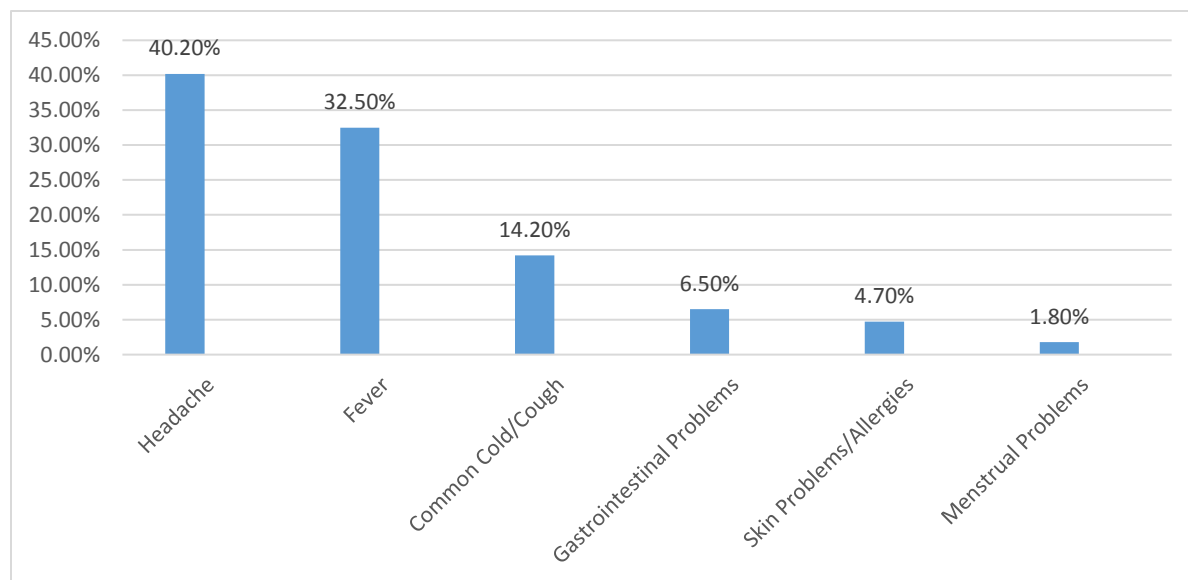


Table 3. Types of Medications Used

Antipyretics (31.9%) and analgesics (28.4%) were the most frequently used medications.

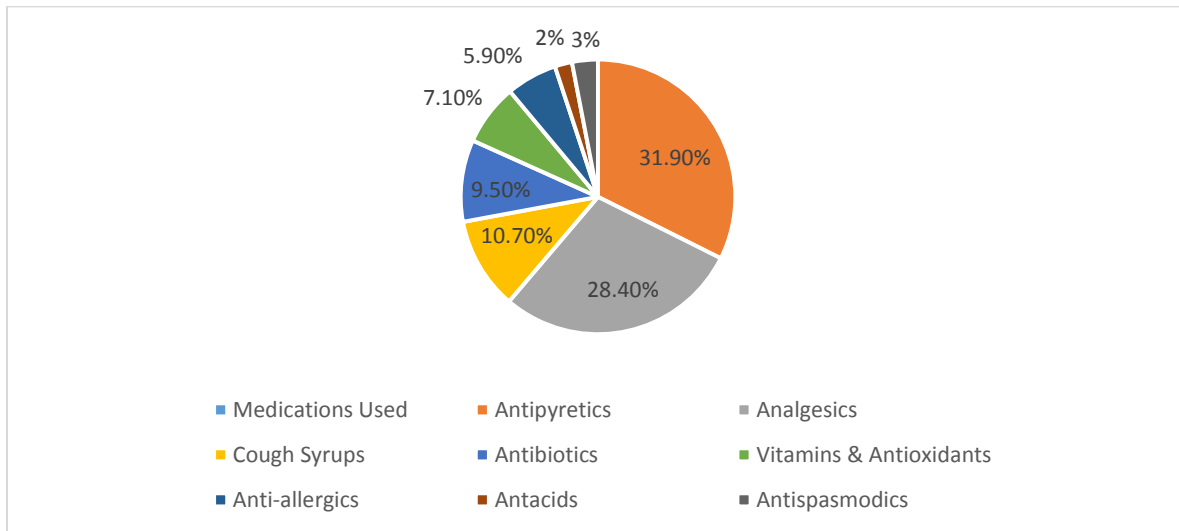


Table 4. Reasons for Self-Medication

Saving time (26.0%) was the most frequently cited reason for self-medication.

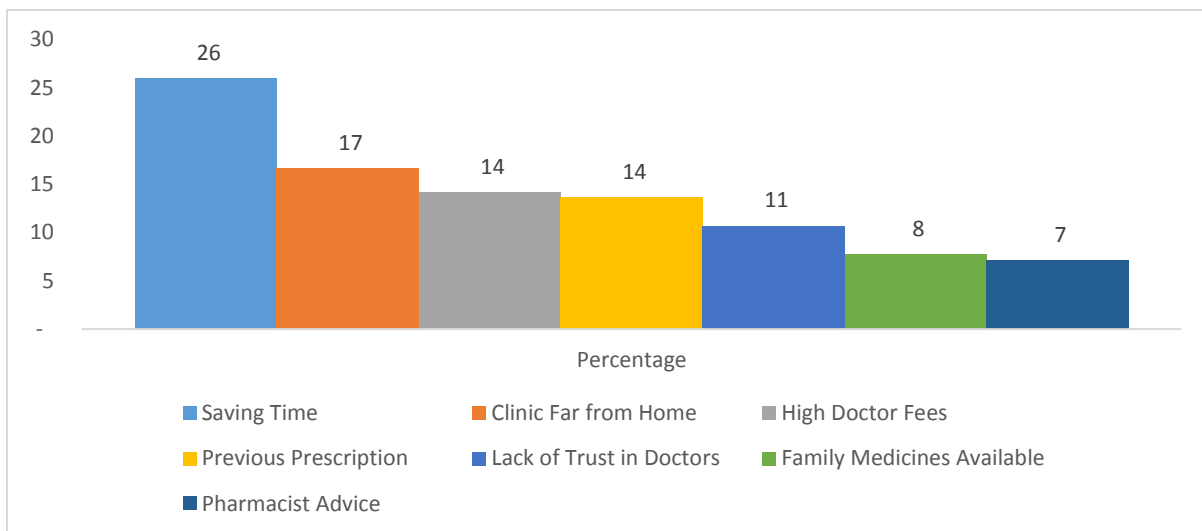
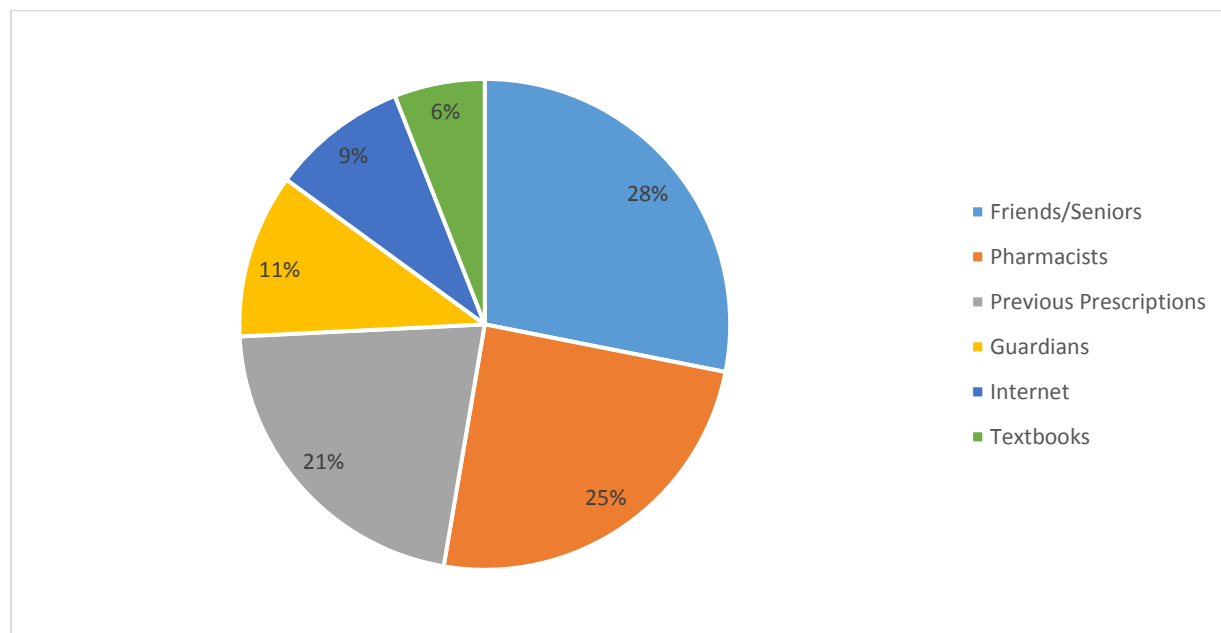


Table 5. Sources of Information

Friends and seniors (27.8%) were the most common source of information regarding self-medication.



Recommendations

1. Incorporate rational drug-use education into nursing curricula.
2. Conduct regular awareness campaigns on risks associated with self-medication.
3. Strengthen enforcement of prescription-only medication policies.
4. Improve accessibility and affordability of healthcare services.
5. Encourage students to seek professional consultation for health-related concerns.

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The authors declare no conflict of interest.

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Authors' Contributions

All authors contributed substantially to the conception, design, data collection, analysis, manuscript drafting, and final approval of the manuscript.

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