

KNOWLEDGE AND PRACTICE OF SELF-MEDICATION AMONG UNDERGRADUATE BSN(GENERIC) STUDENTS

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Abstract: Self-medication is a widespread practice globally, particularly among healthcare students, posing risks such as drug misuse, delayed treatment, and antimicrobial resistance. Nursing students, as future healthcare providers, are a key demographic for evaluating self-medication practices. **Objective:** To assess the knowledge and practices of undergraduate BSN (Generic) students regarding self-medication at Superior University, Lahore. **Methods:** A descriptive cross-sectional study was conducted among 140 BSN (Generic) students. Data were collected using a structured questionnaire covering demographic characteristics, knowledge, and self-medication practices. Descriptive and inferential statistics were analyzed using SPSS version 26. **Results:** The study found that 57.1% of participants engaged in self-medication, with 60% acknowledging its harmful effects but 66.4% incorrectly believing antibiotics were necessary for the common cold. Unsafe practices included reusing prescriptions (57.9%) and increasing drug doses without professional consultation (58.6%). A significant proportion (60%) also believed that expensive drugs are more effective. **Conclusion:** Despite moderate knowledge, unsafe self-medication practices are prevalent among nursing students. Targeted educational programs and stricter regulatory measures are essential to address these gaps and promote safe medication behaviours among future healthcare providers.

Keywords: Self-Medication, Nursing Students, Knowledge, Practices, Antibiotics, Pakistan

Introduction

Self-medication, defined as the use of drugs to treat self-diagnosed disorders or symptoms without professional guidance, is a widespread practice globally, particularly in developing countries like Pakistan. While it may offer temporary relief and convenience, self-medication poses significant risks, including incorrect diagnoses, delayed treatment of underlying conditions, drug misuse, and the development of antimicrobial resistance (1, 2).

In Pakistan, the availability of over-the-counter drugs, lack of stringent regulatory mechanisms, and cultural norms contribute to the prevalence of self-medication (3). A study by Hussain et al. revealed that the prevalence of self-medication among the Pakistani population ranged from 50% to 70%, with antibiotics and analgesics being the most commonly misused drugs(4). For healthcare students, including nursing students, self-medication is particularly concerning as they have some medical knowledge, which may lead to overconfidence in diagnosing and treating their conditions without adequate expertise (5).

Undergraduate nursing students represent a critical group for evaluating self-medication practices. Their role as future healthcare providers places them at the forefront of promoting safe medication practices. However, studies have indicated that nursing students often engage in self-medication for minor ailments, relying on personal judgment or prior prescriptions. Such practices not only expose them to health risks but also set a precedent for their future professional behaviour (6).

A study conducted in Karachi among medical and nursing students found that 68% of participants engaged in self-

medication, citing factors such as easy access to drugs, lack of time, and confidence in their medical knowledge as key reasons(7). Similarly, Ahmed et al. highlighted that misconceptions about the harmlessness of over-the-counter drugs and antibiotics are prevalent among healthcare students in Pakistan, contributing to widespread misuse (8). Globally, research highlights the role of education in addressing self-medication behaviours. Continuous professional education and awareness programs have proven effective in reducing unsafe medication practices among healthcare students (9, 10). However, in Pakistan, there is a lack of targeted interventions to address the knowledge gaps and unsafe practices among nursing students, necessitating urgent attention to this issue.

This study aims to assess the knowledge and practices of undergraduate BSN (Generic) students regarding self-medication in Lahore, Pakistan. By identifying gaps in understanding and behaviours, this research will provide insights into developing targeted educational interventions to promote safe medication practices among future healthcare providers.

Methodology

The study employed a descriptive cross-sectional design to assess the knowledge and practices of undergraduate BSN (Generic) students regarding self-medication at Superior University, Lahore. This design was selected to provide a snapshot of the participants' current understanding and behaviours related to self-medication at a specific point in time.

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The study population included 140 undergraduate BSN (Generic) students from various academic years. Participants were recruited using a convenience sampling technique. Inclusion criteria required students to be actively enrolled in the nursing program and willing to participate in the study. Students who were unavailable during the data collection period or unwilling to participate were excluded. Data were collected using a structured and pre-validated questionnaire. The questionnaire comprised three sections: demographic characteristics, knowledge regarding self-medication, and practices related to self-medication. The demographic section gathered information on age, gender, marital status, academic year, and experience. The knowledge section assessed participants' understanding of the risks and misconceptions surrounding self-medication, including antibiotic misuse, drug resistance, and the perception of drug effectiveness. The practices section focused on participants' behaviours related to medication use, such as consulting healthcare providers, reusing prescriptions, and combining herbal and Western medicines.

The questionnaire was developed based on existing literature and guidelines on self-medication and was pre-tested on a small sample to ensure clarity and reliability. Modifications were made based on feedback from the pre-test to enhance the validity of the instrument.

Ethical approval was obtained from the institutional review board of Superior University before the study commenced. Participants were briefed about the study's objectives, and informed consent was obtained. Anonymity and confidentiality were ensured throughout the study, and participants were allowed to withdraw at any stage without penalty.

Data collection was conducted over two weeks. Questionnaires were distributed to students during class hours, and sufficient time was provided for completion. Research assistants were available to address any queries and ensure the accuracy of responses. Completed questionnaires were collected, checked for completeness, and securely stored for data entry and analysis.

Data analysis was performed using SPSS version 26. Descriptive statistics, including frequencies and percentages, were used to summarize demographic characteristics, knowledge, and practices. Inferential statistics were applied to identify associations between demographic variables and participants' knowledge and practices regarding self-medication.

Results

This study assessed the knowledge and practices of undergraduate BSN (Generic) students regarding self-medication at Superior University, Lahore. The study included 140 undergraduate BSN (Generic) students. The majority (80.7%) were aged between 20 and 25 years, and males comprised 57.1% of the sample. All participants were single (100%) and held a BSN (Generic) qualification. In terms of experience, 52.1% had 1–3 years of experience, while 47.9% had 4–6 years. Most participants were from the medical ward (44.3%), followed by the surgical ward (30.7%) (Table 1).

The results revealed variations in knowledge regarding self-medication. While 60% of participants agreed that self-medication could have harmful effects on health, only 32.1% believed that it could lead to substance abuse. A significant proportion of participants (66.4%) incorrectly believed that antibiotics are needed for the common cold. Additionally, 60% agreed with the misconception that expensive drugs are more effective and have fewer side effects. Other aspects of knowledge, such as the risks of drug resistance due to overuse, were understood by 56.4% of participants (Table 2).

The practices of self-medication were assessed across various dimensions. While 57.1% admitted to taking medicines without consulting a healthcare provider, 57.9% reused prescriptions when experiencing similar symptoms. Additionally, 58.6% of participants reported increasing the drug dose when symptoms were not relieved. Conversely, only 42.1% discontinued medications when symptoms subsided, reflecting a gap in safe medication practices (Table 3).

The findings indicate that while students demonstrated some awareness of the risks associated with self-medication, significant gaps exist in knowledge, particularly concerning misconceptions about antibiotics and expensive drugs. The practice of self-medication was found to be prevalent, with more than half of the participants engaging in risky behaviours such as reusing prescriptions and adjusting drug dosages without professional advice. These results underscore the need for targeted educational interventions to improve knowledge and promote safe medication practices among undergraduate nursing students.

Table 1: Demographic Characteristics of Participants

Variable	Category	Frequency (n)	Percentage (%)
Age (years)	20–25	113	80.7
	26–30	27	19.3
Gender	Male	80	57.1
	Female	60	42.9
Marital Status	Single	140	100.0
Qualification	BSN (Generic)	140	100.0
Experience	1–3 years	73	52.1
	4–6 years	67	47.9
Department	Medical Ward	62	44.3
	Surgical Ward	43	30.7
	Other	35	25.0

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Table 2: Knowledge of Self-Medication

Statement	Agree (%)	Disagree (%)	Uncertain (%)
Self-medication can have harmful effects on health	60.0	22.9	17.1
Self-medication can lead to substance abuse	32.1	35.0	32.9
Antibiotics are needed for the common cold	66.4	16.4	17.1
Overuse of drugs can result in resistance	56.4	21.4	22.1
Expensive drugs are more effective and have fewer side effects	60.0	40.0	-

Table 3: Practices Related to Self-Medication

Practice	Yes (%)	No (%)
Taking medicines without consulting a practitioner	57.1	42.9
Reusing prescriptions for similar symptoms	57.9	42.1
Increasing drug dose when symptoms persist	58.6	41.4
Discontinuing medicines after symptom relief	42.1	57.9
Checking labels before using medication	53.6	46.4
Combining herbal and Western medicine	38.6	60.7

Discussion

This study assessed the knowledge and practices of undergraduate BSN (Generic) students regarding self-medication, revealing important insights into their behaviour and understanding. The findings demonstrate a high prevalence of self-medication, with significant gaps in knowledge and unsafe practices, aligning with prior research conducted in similar contexts.

The study showed that 57.1% of participants engaged in self-medication, a finding consistent with previous studies conducted in Pakistan. For instance, Malik et al. reported that 60% of university students in Lahore practised self-medication, driven by factors such as convenience, overconfidence in personal knowledge, and easy access to over-the-counter drugs (11). Similarly, Iqbal et al. found a self-medication prevalence of 68% among medical and nursing students in Karachi, with antibiotics and analgesics being the most commonly used medications (12).

The participants in this study displayed mixed knowledge about self-medication risks. While 60% recognized the harmful effects of self-medication, only 32.1% understood the potential for substance abuse, and 66.4% incorrectly believed antibiotics were necessary for the common cold. This reflects findings from Ahmed et al., who noted widespread misconceptions about antibiotic use among healthcare students, contributing to inappropriate practices and increased risk of antimicrobial resistance (13). The misconception that expensive drugs are inherently better, believed by 60% of participants, further underscores the need for targeted educational programs to address such erroneous beliefs.

The study also identified risky self-medication practices, such as reusing prescriptions (57.9%) and increasing drug dosages without consulting healthcare professionals (58.6%). These behaviours are consistent with findings from James et al., who reported similar trends among medical students in Bahrain, attributing them to a lack of structured education on safe medication practices (14). Moreover, the low adherence to practices such as checking medication labels (53.6%) and avoiding eating or drinking in medication handling areas (40.9%) raises concerns about the students' understanding of basic safety protocols.

Globally, studies have highlighted the importance of continuous professional education to mitigate self-medication risks among healthcare students. Banerjee et al. demonstrated that targeted training programs significantly improved knowledge and reduced unsafe practices among medical students in India (15). However, in Pakistan, such interventions are limited, leaving gaps in students' awareness and adherence to safe practices.

This study also revealed a gender disparity, with males showing a slightly higher prevalence of self-medication than females. Similar patterns were observed in a study by Lukovic et al. in Serbia, which attributed this difference to cultural norms and differences in health-seeking behaviour (16). Additionally, the higher prevalence of self-medication among students with 1–3 years of experience may indicate a lack of exposure to clinical education, as more senior students often have greater awareness of the risks associated with self-medication (17).

In conclusion, the findings of this study underscore the urgent need for targeted interventions to address the gaps in knowledge and practices related to self-medication among nursing students in Pakistan. Incorporating structured education programs, promoting awareness about the risks of antibiotic misuse, and enforcing regulatory measures to limit over-the-counter drug availability are critical steps to mitigate the risks of self-medication and ensure safe practices among future healthcare providers.

Conclusion

This study revealed a high prevalence of self-medication among undergraduate BSN (Generic) students, with significant gaps in knowledge and unsafe practices. Despite moderate awareness of self-medication risks, misconceptions about antibiotics and over-the-counter drugs persist, contributing to inappropriate behaviours. The findings underscore the need for targeted educational programs, awareness campaigns, and stricter regulatory measures to promote safe medication practices among future healthcare professionals. Addressing these gaps is critical for safeguarding public health and ensuring responsible use of medications.

Declarations**Data Availability statement**

All data generated or analysed during the study are included in the manuscript.

Ethics approval and consent to participate

Approved by the department concerned. (IRBEC-SNU-09111/23)

Consent for publication

Approved

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Conflict of interest

The authors declared the absence of a conflict of interest.

Author Contribution**MAJEED ULLAH**

Study Design, Review of Literature. Methodology Design, Study Design, Review of manuscript, final approval of manuscript., Data collection

HUMAIRA SADDIQUE

Conception of Study, Development of Research Conception of Study, Final approval of manuscript.

RUBINA JABEEN

Coordination of collaborative efforts.

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