

EXPLORING SELF-MEDICATION PRACTICE AMONG HEALTHCARE PROFESSIONALS: RISKS, PERCEIVED BENEFITS, AND CLINICAL IMPLICATIONS AT SHAHIDA ISLAM TEACHING HOSPITAL LODHRAN

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DOI: <https://doi.org/10.5281/zenodo.15307725>

Keywords

Self-medication, Healthcare Professionals, Nurses, Over the Counter Drugs, Risk Factors, Patient Safety

Article History

Received on 21 March 2025

Accepted on 21 April 2025

Published on 30 April 2025

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Abstract

Background: Self-medication, the use of drugs without physician recommendation—is a growing concern globally, particularly among healthcare professionals (HCPs) who have medical knowledge, clinical experience, and unrestricted access to a variety of medications. While this practice may seem beneficial in terms of convenience, time-saving, and cost-effectiveness, it carries significant risks that cannot be overlooked. These include incorrect self-diagnosis, inappropriate drug selection, masking of underlying diseases, potential side effects, and the risk of drug abuse and dependency.

Objective: The objective of this study was to evaluate how widespread the condition, patterns, influencing elements, and implications of self-medication trend among healthcare professionals, including nurses, doctors, and pharmacists, at Shahida Islam Teaching Hospital, Lodhran.

Method: A cross-sectional study was done over six months using organized, close-ended questionnaire. A stratified random sample of 61 healthcare professionals was surveyed. Data were evaluated using descriptive statistics to understand prevalence and trends.

Results: The findings showed that 75.5% of respondents participated in self-medication. Common reasons included cost-effectiveness (57.4%), accessibility to over the counter (OTC) drugs, and workplace stress. Minor ailments like vomiting (70.5%), acidity (62.3%), and wounds (57.4%) were frequently self-treated. Females and younger professionals (18–25 years) reported higher self-medication rates. Although 77.1% acknowledged the potential risks such as drug dependence

and side effects, many continued the practice.

Conclusion: Self-medication is prevalent among HCPs younger professionals (67.2%) and females (42.6%) were more likely to self-medicate despite their awareness of the associated risks. This calls for institutional policies, awareness programs, and educational interventions to encourage responsible practice and ensure both patient and provider safety.

INTRODUCTION

Self-medication refers to the practice of individuals using either prescription or over-the-counter (OTC) drugs to manage their health issues without consulting a healthcare professional. The improper use of self-medication possesses significant health risks, making it a growing concern that warrants attention and action. Due to its convenience, affordability and efficiency, many individuals opt for self-medication as their primary approach to managing health problems. The proliferation of self-medication in countries with limited resources is further exacerbated by inadequate health care infrastructure, unregulated medication sales, unequal health care access, and shortage of health care professionals, expensive medical care and negative patient perceptions of health care providers. The trend of self-medication contributes to the invalid and inappropriate use of drugs (Hassan, Zahra et al. 2024). So it is crucial to know what trends of self-medication among health care professional are; Risk, benefits and implication for practice. Effective medication practice brings about substantial benefits for individuals and the health care system.

Empowers patients to assume ownership of their health, fostering autonomy and self-reliance. Additionally, it can streamline health care delivery; minimize delays in medical attention and potentially saving lives in emergency situations, while also helping to curb healthcare expenditures. (Johnson, Sekhar et al. 2016).here is detrimental effect on patient safety and the overall quality of care. Nurses who self-medicate risk causing unintentional harm to them and their patients because of potential drug interactions, hazards, or insufficient supervision, making it a practice to be strictly avoided.(Hassan, Zahra et al. 2024) Furthermore it highlights the imperative need for healthcare institutions and policy makers to tackle the root cause of nurse self-medication and promote ethical standards. The interplay of economic, political and cultural

influences has fueled a persistent global surge in self-medication, transforming it into a pressing public health concern. (Yusuf, Sule et al. 2024)

The practice of self-medication is widespread globally, with estimated prevalence rates of 37% among urban populations and 17% in rural areas in India, 68% in Europe, and between 40.7% to 81.8% in African countries. The prevalence of self-medication practice among healthcare workers to be high as 52.1% in Nigeria. (Hanumaiah and Manjunath 2018)There is scarcity of research in self-medication in Pakistan. Large numbers of health care professionals are involved in self-medication and hence the quality of care and practice is seriously affected so there is need to evaluate this issue further to improve the quality of care and also to preserve the health of nurses.

Significance:

This study is important because it highlights the high occurrence of self-medication among healthcare professionals, especially younger and female staff. It shows how factors like easy access to medicines, cost-saving, and work stress contribute to the practice. The findings call for institutional policies, awareness programs, and education to promote safer and more responsible medication use. Additionally, the study fills a research gap in Pakistan and offers insights that are valuable both locally and globally for improving healthcare quality and patient safety.

Problem Statement:

Despite being trained medical professionals with knowledge of pharmacology and patient care, a significant number of healthcare workers—including nurses, doctors, and pharmacists—engage in self-medication practice. This trend raises serious concerns about the risks of incorrect diagnoses, drug misuse, side effects, and dependency. In Pakistan, especially in healthcare settings like Shahida Islam

Teaching Hospital, there is limited research on the extent, causes, and implications of self-medication among healthcare professionals. The lack of awareness, institutional guidelines, and proper regulation may lead to compromised healthcare quality and patient safety. Therefore, it is essential to investigate the trends, motivations, and outcomes of self-medication within this professional group to inform policies and promote safer practice.

Objectives:

Explore the present trend in self-medication practice among healthcare professionals (e.g., doctors, nurses, pharmacists).

Research Question:

What are the current trends in self-medication practice among healthcare professionals?

Literature Review

According to the World Health Organization (WHO), self-medication involves individuals using drugs to treat self-identified symptoms or conditions, or continuing the use of previously prescribed medications to manage long-term or recurring illnesses. "According to WHO, when done responsibly, self-medication can help manage illnesses that do not need medical attention and alleviate the strain on healthcare systems, especially in situations where resources are scarce." (Limaye, Limaye et al. 2017).

Healthcare professionals gain substantial knowledge about medications through their work experience, which impacts their self-medication habits. The study concluded that self-medication is widespread among healthcare workers, who may also influence others to adopt this practice. Promoting responsible self-medication is preferable (Hanumaiah and Manjunath 2018). The World Health Organization (WHO) suggests that responsible self-medication can manage some health issues and reduce healthcare strain. A study found that female nurses and those in private hospitals are more common to practice self-medication, influenced by personal and work-related factors. Nursing students also showed the highest rates of self-medication practice. These findings emphasize the need for education, health literacy, and safe self-medication environments among

healthcare workers and students..(Hassan, Zahra et al. 2024).

The primary goal of this study was to classify the most frequent used medications, their manifestation, the causes behind self-medication, and to evaluate the attitudes of pharmacy and nursing students towards self-medication. The study resulted that the occurrence of self-medication was higher among medical students, as they had easier approach to information regarding diseases and medications. Among the three student groups, nursing students exhibited the highest trend of self-medication.(Johnson, Sekhar et al. 2016)

The World Medical Association (WMA) defines prescription-only medications (POM) as drugs that require professional supervision for safe use. As drugs move from POM to pharmacy or OTC status, concerns arise about improper use, self-diagnosis errors, and lack of guidance. Health systems must balance accessibility and safety, and public education on proper medication use is crucial. Inappropriate self-medication among healthcare professionals can lead to legal, ethical, and health-related issues, affecting patient outcomes and healthcare quality. (Ali, Kai et al. 2012).

Self-medication (SM) is a critical issue in low socioeconomic countries, especially during the COVID-19 pandemic. To improve SM practice, a comprehensive approach including public awareness campaigns, healthcare professional training, and strict regulations on drug advertising and usage is needed. National health authorities can reduce SM risks and prevent unnecessary medication accumulation. However, inappropriate use can lead to incorrect diagnoses, side effects, drug interactions, dependency, and increased drug resistance. Therefore, robust legislation and involvement of healthcare professionals and policymakers are crucial for SM regulation and management. (Malik, Tahir et al. 2020)

Antibiotic self-medication (SMA) is prevalent in both affluent and developing nations, particularly in Pakistan. The public often misuses prescription antibiotics due to lack of professional supervision and understanding of usage. Financial concerns, ease of access to OTC medicines, and lack of regulations contribute to SMA. Healthcare providers should be involved in patient education, counseling, and

medication usage, as well as providing health insurance coverage. Men are more likely to use these narcotics than women.(Aslam, Zin et al. 2022) Research conducted globally among students revealed that self-medication is a widespread behavior. The research suggests that increasing control and monitoring of drug sales and educating people about the dangers of self-medication could help reduce this issue. Access to physicians and health facilities could also help ease the process of self-medication among students. (Behzadifar, Behzadifar et al. 2020).

Methodology

This study employed a cross-sectional design to provide a comprehensive understanding of the target population at a specific point in time. This design is efficient, economical, and allows for the simultaneous analysis of multiple variables. The research was conducted at Shahida Islam Teaching Hospital (SITH), Lodhran, over a period of six months starting from the approval of the research synopsis. The study population included staff nurses, doctors, and pharmacists working in the private sector at SITH Lodhran. The sample size was calculated using the formula: $Z = 1.64$ (for a 90% confidence level), $P = 0.3333$ (anticipated population proportion of 33.33%), and $d = 0.1$ (10% margin of error), resulting in a final sample size of 61 participants.

A stratified sampling technique was used to ensure appropriate representation of different professional categories. Inclusion criteria for participants were

doctors, Generic BSc Nursing, and Post-RN nurses who were actively working in the ward during data collection. Exclusion criteria included MBBS and nursing students, as well as any eligible professionals who were absent or unavailable during data collection. Prior to the commencement of data collection, ethical approval was obtained, and informed consent was taken from all participants, who were assured of complete confidentiality and anonymity. The responses were then entered into IBM SPSS Statistics software for analysis. Both descriptive and inferential statistical methods were applied to interpret the findings.

Results

Table 1 presents a summary of the participants' demographic characteristics. In terms of gender, the distribution was fairly even, with 49.18% male and 50.82% female respondents, reflecting a balanced sample. Regarding age, the majority of participants (67.2%) were between 18 and 25 years old. This was followed by 22.9% in the 26–33 age range, 6.5% between 34–41 years, and 3.3% aged 42 or older, indicating a diverse age representation. Nursing experience among participants varied: most had 1–5 years of experience (80.3%), followed by 6–10 years (13.1%), while 11–15 years and 16 years or more were each reported by 3.3% of respondents. Department-wise, participants were mainly from Wards (47.5%), followed by OPD (26.2%), Emergency (16.4%), and OT (9.9%).

Sr. No	Variables	Categories	Frequencies	Percentage%
1	Gender	Male Female	30 31	49.18 50.82
2	Age	18-25 26-33 34-41 Above 42	41 14 04 02	67.2 22.9 6.5 3.3
3	Marital Status	Married Single Divorced Widowed	14 45 2 0	22.9 73.7 3.3 0
4	Experience	1-5 y 6-10 y	49 8	80.3 13.1

		11-15 y	2	3.3
		Above 16 y	2	3.3
5	Currently Working	Emergency Ward	10	16.4
		OPD	29	47.5
		OT	16	26.2
			6	9.9
6	Profession	Doctor	37	60.7
		Nurse	19	31.1
		Pharmacists	5	8.2

Table: 1 Demographic Characteristic

Section A: Self-Medication Practice

The data show that self-medication is common among respondents, with 75.5% admitting to the practice and 73.8% also prescribing medication to family members. Most do not report medication dependency (70.5%) but are divided on whether

becoming a nurse reinforced self-prescription. A large majority (73.8%) believe self-prescription is effective, yet 70.5% have experienced adverse effects. This highlights a high prevalence of self-medication despite awareness of potential risks.

Sr. #	Self-Medication Practice	SA%	A%	N%	DA%	SDA%
01	Did you practice self-medication?	14.8	60.7	13.1	8.2	3.3
02	Did you prescribe medicine to your family too?	6.6	67.2	11.5	11.5	3.3
03	Is there any medicine you take regularly because you think you are addicted on it?	8.2	13.1	8.2	45.9	24.6
04	The habit of self-prescription is reinforced after becoming professionals?	13.1	26.2	32.8	21.3	6.6
05	Your self-prescription effectively treats your problem?	6.6	67.2	6.6	16.4	3.3
06	Are you did not face any adverse effect by using self-medication?	8.2	13.1	8.2	45.9	24.6

Table: 02 Self Medication practice

Section B:**Factor Promoting Self Medication**

Section B explored factors influencing self-medication among healthcare professionals. A majority (59%) agreed that over-the-counter availability encourages self-prescribing, while 49.2% cited cost-effectiveness as a motivator. Peer influence was evident, with 37.7% agreeing they self-medicate because fellow nurses do, and 44.3% agreed they follow friends' advice. Pharmacist advice (32.8%)

and internet use (37.7%) were also significant factors. Concerningly, 44.3% admitted to taking medication without knowing side effects. Additionally, 49.2% believed self-medication could lead to dependence, and 41% felt it could worsen a condition. Privacy concerns with doctors influenced 26.2% to self-medicate. The detailed tables is given below,

Sr#	Factor Promoting Self Medication	SA%	A%	N%	DA%	SDA%
07	OTC drugs make it easy to self-prescribed	9.8	59	14.8	13.1	3.3
08	Are you self-prescribed medicine because it was cost effective?	8.2	49.2	16.4	23	3.3

09	Do you think female nurses self-prescribe more than men?	9.8	32.8	31.1	24.6	1.6
10	Are you self-prescribed because your colleague does the same?	8.2	37.7	27.9	21.3	4.9
11	You practice self-medication on advice of your friend?	8.2	44.3	14.8	21.3	11.5
12	Your source of information for self-medication is advised from pharmacist?	8.2	32.8	19.7	29.5	9.8
13	Is the internet make is super easy to self-diagnosed?	11.5	37.7	16.4	26.2	8.2
14	Do you take medicine without perceiving potential adverse reactions?	4.9	44.3	11.5	37.7	1.6
15	Can self-medication worsen the condition?	16.6	41	16.4	19.7	6.6
16	Self-medication can cause risk of dependence and abuse?	27.9	49.2	6.6	11.5	4.9
17	You self-prescribe because you think doctors have inadequate respect for patient privacy?	9.8	26.2	16.4	41	6.6

Table: 03 Factor Promoting Self-Medication

Section C:

Self-Medication for Different Disorders/Diseases:

Section C highlights that self-medication is commonly practiced across various health conditions. A majority reported self-prescribing for muscle or joint pain (62.3%), sleep disorders (50.8%), minor wounds (67.2%), dental pain (55.8%), hypertension (57.4%), acidity (73.8%), and vomiting or nausea (80.3%). In contrast, fewer

respondents used self-medication for heart-related issues, with only 24.6% agreeing and 63.9% opposing it. When asked if self-medication was a worthwhile experience, 45.9% agreed, while 27.9% were neutral and only 9.8% disagreed. These findings suggest that self-medication is prevalent and generally viewed positively, especially for minor or common conditions.

Sr#	Self-Medication for Different Disorders/Diseases	SA%	A%	N%	DA%	SDA%
18	Do you self-prescribe for muscle/joint pain?	8.2	54.1	18.0	18	1.6
19	Do you self-prescribe for sleep disorders?	4.9	45.9	13.1	36.1	0
20	Do you self-prescribe for wounds?	9.8	57.4	11.5	21.3	0
21	Do you self-prescribe for dental pain?	6.6	49.2	19.6	23	1.6
22	Do you self-prescribe for hypertension?	6.6	50.8	8.2	32.8	1.6
23	Do you self-prescribe for heart issues?	6.6	18	11.5	39.3	24.6
24	Do you self-prescribe for acidity?	11.5	62.3	6.6	13.1	6.6
25	Do you self-prescribe for vomiting or nausea?	9.8	70.5	6.6	11.5	1.6
26	Did you have a worthwhile experience of self-medication?	8.2	54.1	27.9	8.2	1.6

Table: 04 Self-Medication for Different Disorder

Discussion

This research examined the occurrence, behavioral trends, and contributing factors of self-medication among healthcare professionals at Shahida Islam Teaching Hospital in Lodhran. The findings indicate that self-medication is a widespread practice, with 75.5% of respondents reporting that they practice it,

either strongly agreeing or agreeing to its use. Despite being medically trained, healthcare professionals—

particularly nurses and doctors—engage in self-medication frequently, influenced by multiple factors. Recent studies show some different prevalence of self-medication. Several previous studies have reported a generally positive attitude toward self-medication among respondents. For

example, 76.9% of participants in Bahrain, 85% in India, and 55.5% in Gondar exhibited favorable views on self-medication practice. The current study aligns with these findings, showing that 81% of participants held a positive attitude toward the use of self-medication. (Lokeesan and Laavanya 2019)

The findings of this study highlight a gender-based variation in self-medication practice, with a higher proportion of female healthcare professionals (42.6%) engaging in self-medication compared to their male counterparts (26.2%). Statistical analysis confirms the presence of this disparity. Similar trends have been observed in other studies, where female nurses demonstrated a greater tendency toward self-medication (37.79%) than male nurses (24.00%) (Hassan, Zahra et al. 2024).

Another finding in our study is observed where 67.2% of the respondents were between the ages of 26-33 years. Similar studies were found to observe where 43.4% of the respondents were between the ages of 26-30 years. (Yusuf, Sule et al. 2024)

The present study shows that self-medication is most frequently practiced for minor ailments such as vomiting/nausea (70.5%), acidity (62.3%), and wounds (57.4%). A strong motivator identified was cost-effectiveness, with 57.4% agreeing or strongly agreeing that self-medication is more affordable. This reflects results from (Malik, Tahir et al. 2020) during the COVID-19 pandemic, where economic hardship and limited healthcare access drove increased self-medication in low- and middle-income countries.

The trend is consistent with findings by (Hanumaiah and Manjunath 2018), who observed that musculoskeletal pain was one of the most common complaints leading to self-medication among healthcare workers. Similarly, (Limaye, Limaye et al. 2017) noted that due to workload and physical strain, healthcare workers often resort to painkillers without medical advice.

Conclusion

The study revealed that self-medication is highly common among healthcare professionals, with over 75% reporting its use, mainly for minor health issues like nausea and acidity, professionals use self-medication due to cost-saving, convenience, easy access to medications and medical knowledge. Younger professionals (67.2%) and females (42.6%)

were more likely to self-medicate. In spite of some benefits, the practice carries serious risks such as improper dosage, side effects, and even drug dependence. These findings demonstrate the global scope of the problem and the study emphasizes the importance of implementing strict regulations, along with educational initiatives and awareness programs, to encourage safer and more responsible self-medication practice among healthcare professionals.

Limitations

❖ Small sample size:

This study was based on a relatively small sample size of 61 participants, all drawn from a single institution—Shahida Islam Teaching Hospital in Lodhran.

❖ Self-Reported Data:

Self-administered questionnaires were used in the study, which could have been impacted by social desirability or recollection bias. In order to conform to perceived expectations, participants may either over report or underreport their practice.

❖ Cross sectional study:

It makes more difficult to explain a causal link among the independent and dependent variables. A longitudinal research is suitable for the casual connection.

Suggestions

- 1) Providing effective gender-based interventions and educating the medical faculty through awareness programs or seminars.
- 2) Initiatives to raise health literacy and educate people about the hazards of self-treatment. Enhance knowledge about effective measures to avoid self-medication.

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