Self-medication Practice among Adults in Lalitpur District

Monika Maharjan[1], *Tulza KC[2]

[1]Tribhuvan University Teaching Hospital, Kathmandu, Nepal

[2] Department of Adult Health Nursing, Maharajgunj Nursing Campus, Institute of Medicine, Tribhuvan University, Nepal

ABSTRACT

Introduction: Self-medication is the use of drugs to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of a prescribed medication for chronic or recurrent diseases or symptoms. The objective of this study was to find out the practices of self-medication among adults in a community.

Methods: The descriptive cross-sectional study was conducted among 99 adults, selected through a non-probability convenience sampling technique. Data were collected through in-person interviews using a semi-structured questionnaire. Data analysis was performed using both descriptive and inferential statistics.

Results: The study showed that 75.75% of the respondents practiced self-medication. The majority of the respondents practiced self-medication for fever (77.3%), headache (73.3%), and cough and cold (72%). Reasons for self-medication were purchase convenience (77.3%), self-reported minor nature of illness (76%), long queues in clinics (60%), and overcrowding in the hospital (50.7 %).

Conclusion: Self-medication is a highly common practice among adults in a Lalitpur District. However, the study found no statistical association between self-medication practice and socio-demographic variables. The findings highlight the necessity of raising public awareness about the potential risks of inappropriate self-medication and promoting safer healthcare-seeking behavior.

Keywords: Adults, Self-Medication Practice

***Correspondance:** Tulza KC, Lecturer, Department of Adult Health Nursing, Maharajgunj Nursing Campus, Maharajgunj-3, Kathmandu, Ph: 9841357015, Email: tulzakc82@gmail.com

Submitted : 12 July, 2025
Accepted : 18 September, 2025

DOI : *https://doi.org/10.3126/jnhsn.v4i1.90350*

INTRODUCTION

Self-medication is the use of medication to cure self-recognized problems or symptoms, as well as the intermittent or continued use of medicine prescribed by a doctor for chronic or recurrent illness or symptoms.[1] It is the use of medicine by people based on previous experience, advice from chemists, or looking up internet sources rather than consulting a doctor and taking prescribed medications.[2]

Practiced globally, self-medication is an important public health problem, with a reported prevalence of 0.1 % in Northern and Western Europe, Eastern Europe (21%), and the USA (27%). In developing countries, reported self-medication prevalence rates are much higher, with 84 % in Pakistan, Saudi Arabia (78%), Nigeria (67%), and India (79%).[3] In the context of Nepal, different cross-sectional studies in a few parts of the nation show 38.2% of self-medicating participants in Pokhara [4], Dharan (73.23%) [5], and Dhankuta (70.2%).[6]

Self-medication practices can result in incorrect self-diagnosis, delays in receiving proper care, risk of harmful drug interactions, inappropriate dosage, incorrect prescription selection, and dependence and drug addiction.[7] Self-medication is one of the factors that is acknowledged on a global scale as being the most prevalent and obvious contributor to antimicrobial resistance.[8,9] Previous studies had indicated that self-medication was common in Nepal and that appropriate pharmacovigilance was an issue.[10] Self-medication research has only been conducted on a small subset of health science students in different countries, including Nepal. The true state of self-medication in a community setting needs to be identified.[10] There are only a few numbers of study conducted in this subject matter and even fewer among the community people. Moreover, previous studies have not given the definite criteria for defining self-medication practice. This study intends to fill the gap.

METHODS

A descriptive cross sectional research design was used. The study was conducted in the community of Khokana, Ward No. 21 of Lalitpur Metropolitan City, Lalitpur, Nepal. The adult residents of Khokana, who were aged 20 and above, were included in the study. Using the Cochran formula for infinite population (Sample size = z^2pq/e^2), total n= 99 adults (one from each family) who were able to communicate verbally and agreed to participate were selected using non-probability convenience sampling.

A semi-structured in-person interview schedule was developed by researchers, consisting of two parts. Part I consisted of 10 questions related to socio-demographic information which was developed by the researcher through the reviewed literature and Part II consisted of total 18 questions with first 5 questions regarding self-medication practice which was scored for possible score of 0-5 and remaining 13 questions were related to the practice of respondent with self-medication practice which was developed by the researcher oneself through the reviewed literature and expert advice. The questionnaire was developed in Nepali language. Data was collected after obtaining ethical approval (Ref. No.:72[6-11]E2/078/79) from Institutional Review Committee, Institute of Medicine, Tribhuvan University. Informed written consent was taken from the adults and they were assured of confidentiality of the information, interviewed separately and were informed of their right to withdraw from the questionnaire at any time. Data collection was done in the month of August, 2022. Data were analyzed using descriptive statistics, and associations between demographic variables and self-medication practices were evaluated using the Chi-square test at a 0.05 level of significance.

RESULTS

Of the total 99 participants interviewed, almost one-third (31.3%) of the respondents belonged to the 40-49 years' age group (44.89±14.58 years). Almost two-thirds (62.6%) were female, and 81.8 % of adults were married. Most of them were Newar (90.9%). The level of education showed 81.8% could read and write, among which 32.2% had informal education and 22.2% had higher-level education. The majority of the respondents (75.8%) followed Hinduism, and more than half of them (53.5%) were living in a joint family. One-fourth of them were farmers (25.2%), and 90.9 % had their residency.

It was seen that half of the respondents (66.7%) had taken medications without consulting a doctor, with 76.0% of respondents taking medications on advice from others. Few of them (13.3%) had continued taking prescribed drugs even after completion of the dosage. (Table 1)

Table 1: Respondents' Practice on Self-Medication (n=99)

Variables*	Number	Percent
Medications taken based on advice of others (pharmacist, family, friends)	57	76.0
Medicines used without consulting doctor	50	66.7
Use of same kind of medicine prescribed to family members for similar symptom without consultation	15	20.0
Previously prescribed medicine used for recurrent illness without consultation or follow-up	12	16.0
Continued intake of prescribed drugs after completion of dosage	10	13.3

**Multiple responses*

The Majority of the respondents (75.8%) had practiced self-medication in at least one form, and 24.2 % of them hadn't practiced self-medication in any form. (Table 2)

Table 2: Respondents' Self-Medication Practice (n=99)

Variables	Number	Percent
Not practiced	24	24.2
Practiced (at least one form)	75	75.8

The study showed that the majority of respondents practiced self-medication for fever (77.3%), headache (73.3%) and cough and cold (72%) with paracetamol being the most commonly used medicine for self-medication, almost half of them (49.3%) practiced self-medication within 1 hour to 24 hours of onset of illness. (Table 3)

Table 3: Respondents' Health Problems and Commonly Used Medicines (n=75)

Variables	Number	Percent
Health Problems*		
Fever	58	77.3
Headache	55	73.3
Cough and cold	54	72.0
Body ache	25	33.3
Diarrhea	20	26.7
Heart burn	17	22.7
Sore throat	12	16.0
Dental problems	08	10.7
Others**	15	20.0
Commonly Used Medicines*		
Paracetamol	57	76.0
Decongestants/ Antihistamine	39	52.0
Anti-diarrheal	17	22.7
Pantoprazole/ Omeprazole	14	18.7
Ibuprofen	11	14.7
Nimesulide	07	9.3
Others***	18	24.0
Practice after Onset of Illness		
Immediately (Within 1 hour)	12	16.0
1-24 hours	37	49.3
24-72 hours	15	20.0
>72 hours	11	14.7

** Multiple responses*

***Stomach pain, menstrual cramps, skin problems, ear problems, vomiting*

****Antibiotics, cough medicine, medicine for allergy, skin problems, vomiting*

Of the total participants, 89.3% of respondents obtained medicine from a pharmacy by describing their symptoms. More than half of them (58.7%) did not check the instructions in the package before using the medicine. Convenience (77.3%) was the top personal reason, and long queues in hospitals/clinics (60%) were the top health-related reasons for self-medication practice. Most of the respondents (81.3%) did not experience any side effects. (Table 4)

Table 4: Respondents' Medication Practice and Reasons for Self-Medication (n=75)

Variables	Number	Percent
Sources of Medicine *		
Pharmacy	75	100.0
Left-over previously used medicines	19	25.3
Ways of Obtaining Medicine from Pharmacy*		
Telling the symptoms	67	89.3
Telling the name of medicine	21	28.0
Showing old sample/ package of the medicine	13	17.3
Presenting same prescription paper of previous illness	05	6.7
Checked the instructions in Package		
Yes	31	41.3
No	44	58.7
Checked Components of Instruction (n=31) *		
Manufacture date	29	93.5
Expiry date	29	93.5
Dose regimen	16	51.6
Composition	05	16.1
Personal Reasons *		
Convenience	58	77.3
Illness too minor	57	76.0
Familiarity with treatment	48	64.0
Lack of time	17	22.7
Didn't feel the need	15	20.0
Health Service-related Reasons *		
Long queue in Hospital/Clinic	45	60.0
Hospital/Clinic at long distance	38	50.7
Overcrowding	38	50.7
Lengthy process	18	24.0
High consultation fees	15	20.0
Multiple lab tests	15	20.0
Unsatisfactory health services at Hospital/ Clinic	07	9.3
Others**	04	5.3
Experienced Side-Effects		
Yes	14	18.7
No	61	81.3

**Multiple responses*

***No partner to visit hospital/clinic, Fear of diagnosis of major illness*

Table 5 shows the association of self-medication practice with socio-demographic factors like age, sex, educational status, residential status. Those variables had no statistically significant association between age, sex, educational status, residential status and self-medication practice.

Table 5: Association Between Self-medication Practice and Socio-demographic Factors (n=99)

Variables	Self-Medication		*p* – value*
	Practiced	Not practiced	
	No. (%)	No. (%)	
Age			
≤44	38 (74.5)	13 (25.5)	0.765
≥ 45	37 (77.1)	11 (22.9)	
Sex			
Male	28 (75.7)	9 (24.3)	0.988
Female	47 (75.8)	15 (24.2)	
Educational Status			
Cannot read and write	14 (77.8)	4 (22.2)	1.000
Can read and write	61 (75.3)	20 (24.7)	
Residential Status			
Own home	70 (77.8)	20 (22.2)	0.214
Rented home	05 (55.6)	04 (44.4)	

**Chi-square test done; significance level set at p<0.05*

DISCUSSION

In the present study, 75 adults out of 99 had practiced self-medication. A descriptive cross-sectional study among two communities of Dharan Sub-metropolitan shows the prevalence of self-medication to be 73.23%.[5] Although a recent study in Lalitpur metropolitan city reported the prevalence of self-medication to be 45.2%, which was conducted among 1004 respondents of 17 wards.[11] The highly variable rate of prevalence may be due to differences in sample size and duration of study.

Majority of the adults practiced self-medication for fever (77.3%), headache (73.3%) and cough and cold (72%) which is similar to the recent study in Lalitpur Metropolitan, in which, the three most common reasons for self-medications were fever, headache, and cough/cold.[11] Paracetamol (76%) was the most common medicine used for self-medication followed by Decongestants (52%) and ibuprofen (24%), which is supported by a study that reports NSAIDS like paracetamol, nimesulide to be commonly self-medicated medications.[10]

This study found that every respondent received medicine from a pharmacy, followed by leftover medicines (25.3%) and family members (12%). The most common method for acquiring medications in a study conducted in Dharan was consulting a pharmacist, and the most frequent reasons were comfort and time restrictions.[5] In West Bengal, the neighboring drug store served as the most frequent source of the medications used for self-medication; these were purchased there over the counter after describing the symptoms.[12]

This study found that 89.3% of respondents requested medicine from a pharmacy by telling the symptoms, followed by telling the name of the medicine in this study. A study in Ethiopia reveals that the majority of respondents requested the medicine from the pharmacy by mentioning the name of the drug, followed by disclosing any signs and symptoms of their illness to the pharmacy professional. [13]

Most of the respondents practiced self-medication due to convenience (77.3%) and for a minor of illness (76%). Likewise, illness not severe (39.4%), convenience (21.4%) were the personal reasons for practicing self-medication in a study in West Bengal, India.[12] In this study, the majority (60%) of respondents provided a long queue in the clinic as the health service-related reason for self-medication, and half of the respondents (50.7 %) responded that hospital/clinic at a long distance and overcrowding as the reasons. Similar results were found in the study where

long wait at health facilities (2.2%) and health facilities too far (2.2%) were the health service-related reasons.[13]

About 81.3 % of the respondents did not experience any side effects after self-medication. Among the respondents who experienced the side effects, 92.9 % of the respondents experienced weakness, and 42.9% experienced dizziness. More than half of the respondents did nothing when they experienced side effects. Among those who practiced self-medication, more than half of the respondents (58.7%) thought the self-medication to be safe, while one-seventh (14.7%) were not sure. In comparison to the study in Eastern Nepal, about one-twelfth (8.3 %) reported side-effects of allergy, diarrhea, headache, vomiting, followed by weakness and nausea. Almost half of the reported respondents consulted a pharmacy after the onset of side effects.[10]

In this study, age was not associated with the practice of self-medication. However, in a study of the Addis Ababa community, there was a significant association between age and self-medication practice. Those study participants in the age group of 25–34 were 0.52 times less likely to practice self-medication than those who are at the age group of 55 years.[13] The geographical and cultural differences could be the reason for the variation.

A study conducted in the UAE suggests that gender and employment status were significantly associated with self-medication usage. Female respondents were 1.3 times more likely to self-medicate compared to male respondents. Also, respondents from the working and nonworking groups were less likely to self-medicate compared to student respondents.[14] In this study, there is no significant association between gender and self-medication practice.

As reported by a study in the community of Eastern Nepal,[10] there was no significance of self-medication practice with the education level, which is similar to the finding of this study. Meanwhile, there is no significant association between residential status and self-medication practice in this study; however, in a study in Eastern Nepal, the participants residing in an Alani/rent household had 1.93 times more use of self-medication than those who resided in their household.[10] The small sample size, as well as the minority of respondents living in rent in this research, could be a reason.

CONCLUSIONS

The findings of the study highlight a high prevalence of self-medication practice among adults, primarily for common ailments such as fever, headache and cough and cold. The most commonly used medicines were paracetamol and decongestant. The convenience of purchasing medications, the perception of illness as minor, long waiting times in hospitals/clinics, and long distance are the main reasons of practicing self-medication. These highlight the need for public awareness campaigns about responsible self-medication use and improved healthcare services to mitigate the negative effects of self-medication practice.

ACKNOWLEDGEMENT

We gratefully acknowledge all the respondents who offered their time and participated in the interviews for this study.

SOURCE OF FINANCIAL SUPPORT: None

CONFLICT OF INTEREST: Non Declared

REFERENCES

1. World Health Organization. Guidelines for the regulatory assessment of medicinal products for use in self-medication [Internet]. Geneva:WHO;2000 [Retrieved 22 July 2022]. http://apps.who.int/medicinedocs/pdf/s2218e/s2218e.pdf.

2. Kumar P, Vimal AK. Study on prevalence and pattern of self-medication practices in a Rural Area of Bihar. Asian journal of medical research. 2020; 9:CM04–6 https://go.exlibris.link/CQnfFw9t

3. Limaye D, Limaye V, Fortwengel G, Krause G. Self-medication practices in urban and rural areas of western India: a cross sectional study. International journal of community medicine and public health 2018;5:2672. https://go.exlibris.link/5F5x7Yms

4. Paudel S, Aryal B. Exploration of self-medication practice in Pokhara valley of Nepal. BioMed Central. 2020;20: 714. https://go.exlibris.link/9q8WdKzm

5. Chapagain K, Rauniyar GP. Self-medication Practices among the Peri-urban households of two communities of Dharan sub-metropolitan city of Eastern Nepal: A descriptive cross-sectional study. Journal of Nepal Medical Association. 2020;58. http://hinari.summon.serialssolutions.com/2.0.0/link

6. Yadav S, Rawal G. Self-medication practice in low income countries. Int J Pharm Chem Anal. 2015;2(3):139–42 https://ijpca.org/archive/volume/2/issue/3/article/21802/pdf

7. Mamo S, Ayele Y, Dechasa M. Self-medication practices among community of Harar City and its surroundings, Eastern Ethiopia. J Pharm. 2018;2757108 https://doi.org/10.1155/2018/2757108

8. Bennadi D. Self-medication: A current challenge. J basic Clin Pharm. 2014 ;5(1):19–23.

9. Rather IA, Kim BC, Bajpai VK, Park YH. Self-medication and antibiotic resistance: Crisis, current challenges, and prevention. Saudi J Biol Sci. 2017;24(4):808–12.

10. Parajuli SB, Mishra A, KC H, Bhattarai P, Karki S, Pandit R, et al. Self-medication practices in surrounding communities of Birat Medical College and Teaching Hospital of Eastern Nepal. Journal of College of Medical Sciences. 2019;15: 45–52. https://go.exlibris.link/lFN4X8gH

11. Shrivastava B, Bajracharya O, Shakya R. Prevalence, knowledge and associated factors on self-medication practice among the community of Lalitpur Metropolitan City, Nepal: a cross-sectional study. Int J Res Pharm Sci. 2021;12(2 SE-Original Articles):1108–18. https://ijrps.com/index.php/home/article/view/98

12. Taklikar CS, Dobe M. A cross sectional study on self-medication practices among a selected rural community of Hooghly district, West Bengal. International journal of community medicine and public health. 2019;6:1052 https://go.exlibris.link/mr9Kc0wR

13. Shafie M, Eyasu M, Muzeyin K, Worku Y, Martín-Aragón S. Prevalence and determinants of self-medication practice among selected households in Addis Ababa community. PloS one. 2018; 13: e0194122–e0194122. https://go.exlibris.link/TYBdZzx3

14. Sridhar S, Shariff A, Dallah L, Anas D, Ayman M, M Rao P. Assessment of nature, reasons, and consequences of self-medication practice among general population of Ras Al-Khaimah, UAE. International journal of applied and basic medical research . India. 2018;8:3–8. https://go.exlibris.link/Tsyvzps6