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Prevalence of Self Medication Practice among Community People in Aiselukharka Rural Municipality Ward No.3, Khotang

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ABSTRACT

Introduction: Self-medication practice is defined as the use of medication by individuals without the prescription of health care professionals. The practice of self-medication is increasing in the world, and in Nepal too. The objective of the study is to assess the self-medication practice among the community people of Aiselukharka Rural Municipality, Ward no 3.

Methods: A descriptive cross-sectional study was conducted among 264 in Aiselukharka Rural Municipality, ward number 3 using random sampling technique using household numbers. Face to face interview was conducted to collect the data from respondents using structured questionnaires after taking informed consent. Descriptive statistics (frequency and percentage) and inferential statistics: chi-square was used to find the association between independent and dependent variables.

Results: The study found prevalence (43.9%) of self-medication practice and the majority of respondents' use (85.3%) anti anti-cold medications. 52.6% of respondents practice self-medication for immediate relief of symptoms. More than half (71.6%) of the respondents were not aware of the negative impacts of self-medication.

Conclusion: The study concluded that the majority of the respondents practiced self-medication.

Key words: *Community people; Self-care behavior; Self-medication practice.*

INTRODUCTION

The WHO has defined self-medication as "The use of medicinal products by the consumer to treat self-diagnosed disorders or symptoms, or the intermittent or continued use of medication prescribed by a physician for chronic or recurrent diseases or symptoms."[1] Self-medication is the selection and use of medicines by individuals or a member of the individual's family without a physician's order to treat self-diagnosed conditions.[2]

This study aims to explore the prevalence of self-medication, including the factors behind this behavior, the types of drugs used, and the sources from which people obtain them. If the community better understands the harmful effects of irrational self-medication rather than just recognizing that it is wrong, the prevalence could be significantly reduced. The findings of this study will be valuable for policymakers and health planners, helping them to create strategies to improve self-medication practices, minimize associated risks, and lower the prevalence in various communities. Additionally, the results will provide a foundation for future research on this issue, offering insights that can guide further studies in this field.

The main objectives of this study are to determine the prevalence of self-medication, identify the primary reasons people engage in self-medication, and

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understand which medications are most commonly used in this practice.

METHODS

The study area was Aiselukharka Rural Municipality ward number 3, Khotang, Koshi Province, Nepal. The Aiselukharka Rural Municipality is situated in the eastern part of Nepal. The municipality covers an area of approximately 125.93 square kilometers with a population of around 16097 people, where ward number 3 has 652 households and around 2995 people. The municipality has a diverse area with a mix of urban and rural communities, with diverse ethnic groups including Brahmin, Chhetri, Limbu, Rai, Tamang, and Newar communities. The study population was the community people of Aiselukharka Rural Municipality, ward number 3, Khotang.

The inclusion criteria were: Permanent residents of ward no. 3, Aiselukharka Rural Municipality, Respondents of age 18 – 69 years old, and one individual from one household. The exclusion criteria were: Mentally challenged and incapability of hearing and speaking at the time of data collection, health professionals and community people having chronic disease who were under medication. The following formula was used to calculate the sample size:

$n=Z^2pq/d^2$

$n = (1.96)^2 \times 0.78 \times 0.22/ (0.05)^2$

$= 263.68$

$=264$

So, the sample size was 264

Where,

n= sample size needed

Z= critical value for 95% confidence limit i.e 1.96

P = prevalence rate i.e.78% ((Chapagain & Rauniyar, 2020)

q = (1-p) = 0.22

d = 5% allowable error i.e 5% = 0.5

Khotang District, Aiselukharka Rural Municipality, and Ward Number 3 was taken as a sample using non-probability purposive sampling techniques. Ward Number 3 had 652 households. Furthermore, Ward Number 3 was divided into 5 clusters (Bazar Line, Rai Gaun, Wodare, Raikar, and Chitre) with total households of 237, 118, 147, 102, and 48 respectively. The household numbers were calculated through probability proportional sampling from each cluster (96, 48, 60, 41, and 19, respectively), and the households were selected through random sampling using household numbers.

Informed consent was taken before face-to-face interviews with the respondent from selected households. Interviews were conducted in a natural and neutral setting. Participants were assured that the confidentiality of the information they provided would be maintained during the study. A structured questionnaire was used for data collection. The questionnaire was checked before conducting the research. The data was collected through a household survey using the Kobo Toolbox. The information gathered was coded and entered into the Kobo toolbox and was exported into SPSS version 26 software for analysis. A descriptive statistical procedure was used. Descriptive statistics such as frequency, percentage, mean, standard deviations, and inferential statistics Chi Square was used to find out the association between independent variables and self-medication practice. The quantitative information was presented in the form of a dummy table, a pie chart, and bar diagrams. Ethical clearance was obtained from the Institutional Review Committee at the National Academy for Medical Science College. We also secured an ethical clearance letter from the college as well as from the relevant municipality and wards. Before data collection, we sought both written and verbal consent from the participants. We ensured that the confidentiality and privacy of the information provided were strictly maintained throughout the process.

We assessed the selection and use of medicines within the last three months before the data collection period, which may have introduced recall bias.

RESULTS

Table 1: Sociodemographic Distribution of the respondents

Characteristics	Frequencies(N=264)
Age	
<30	62
31-49	100
>50	102
Sex	
Male	134
Female	130
Ethnicity	
Brahmin/Chhetri	67
Janajati	183
Dalit	14
Religion	
Hindu	176
Buddhist	58
Christian	12
Kirat	18
Education	

Characteristics	Frequencies(N=264)
Illiterate	74
Primary level (1-5)	41
Secondary level (6-12)	122
Bachelor and above	27
Occupation	
Agriculture	137
Business	85
Labor	7
Service	20
Student	15
Marital status	
Married	227
Unmarried	37
Income	
<20000	176
20000-50000	61
50000-100000	27

Table 1 summarizes the respondents' sociodemographic characteristics. Most were aged 31-49 (37.9%) or over 50 (38.6%), with nearly equal gender distribution (50.8% male, 49.2% female). The majority were Janajati (69.3%), Hindu (66.7%), and married (86%). Regarding education, 46.2% had secondary education, while 28% were illiterate. Agriculture was the main occupation (51.9%), followed by business (32.2%). Most households earned below Rs. 20,000 per month (66.7%).

Table 2: Prevalence of self-medication practice

Taken medications without prescription in the last 3 months	Frequencies(N=264)
Yes	116
No	148

The table no. 2 shows the prevalence of self-medication practice. Self-medication was found to be prevalent among 43.9% of respondents. Among the 148 respondents who did not engage in self-medication, 68.92% reported not experiencing any illness in the past three months, 23.65% stated that they used homeopathy during sickness, and 7.43% expressed concerns about the risk of incorrect diagnosis and potential negative effects associated with self-medication.

Table 3: Health condition and name of medicine for Self-medication

		Frequencies (N=116)
Health conditions	Common cold	99
	Headache	92
	Fever	86
	Gastritis	29
	Cough	39
	Body ache	26
	Skin problem	6
	Menstrual problem	2
	Diarrhea	20
	Constipation	7
	Vomiting	8
	Toothache	6
Name of medicines	Anticold	107
	Antipyretic	100
	Antidiarrheal	28
	Analgesics	61
	Anta acid	34
	Ayurvedic drugs	6
	Antihistamines	8
	Antibiotic	19
	Antiemetic	10
	Anti-spasmodic	5
	Ocular and nasal drops	3

Table 3 highlights health conditions prompting self-medication among 116 respondents. The most common conditions were common cold (85.3%), headache (79.3%), fever (74.1%), cough (33.6%), gastritis (25%), body ache (22.4%), and diarrhea (17.2%). Other issues included skin problems, menstrual issues, constipation, vomiting, and toothache. The commonly used drug categories were anti-cold medications (92.2%), antipyretics (86.2%), and analgesics (52.6%). Antacids (29.3%), antidiarrheals (24.6%), antibiotics (16.4%), as well as antiemetics, antispasmodics, and ocular/nasal drops were also reported.

Table 4: Reasons, Means, and method of self medication

		Frequencies(N=116)
Practice of self-medication	Frequently (Once a every month)	25
	Rarely (Once a month)	81
	Very frequently (Once a week)	10
Reason for taking self-medication	Emergency use	59
	Prior experience about medicine	50
	Easy and convenience	52
	Quick relief	61
	Distance from health service	5
Means for receiving medicines	Recommendation by pharmacists	85
	Opinion of family members	33
	Opinion of friends/seniors	16
	Previous experience	67
	Information from advertisement /media	7
Method adapted to get medicine	By mentioning the name of the medicine	75
	By showing the paper with the name of medicines written	13
	By showing the medication package	13
	By telling the symptoms of your illness	82
Outcome of treatment after self-medication	Cured or improved the illness	98
	Has not cured/ improved	1
	Might cured, Might not	17
Side Effect	No	36
	Yes	80

Table 4 shows that among 116 respondents practicing self-medication, the main reasons were quick relief (52.6%), emergencies (50.9%), convenience (44.8%), prior experience (43.1%), and distance from health services (4.3%). Medicines were mostly obtained without a prescription from pharmacists (73.3%), based on prior experience (57.8%), family opinions (28.4%), friends or seniors (13.8%), and media (6.0%). Respondents obtained medicines by describing symptoms (70.7%), naming the medicine (64.7%), or showing a note or package (11.2%). Most illnesses (84.5%) were cured or improved through self-medication, while 14.06% had uncertain outcomes, and 0.9% showed no improvement. Side effects were reported by 69% of respondents, while 31% experienced none.

Table 5: Association between sociodemographic characteristics and self-medication practice

Characteristics	No	Yes	P- value
Ethnicity			
Brahmin/chettri	28	39	0.023
Janjati	112	71	
Dalit	8	6	
Occupation			
Agriculture	92	45	<0.001
Business	40	45	
Labor	5	2	
Service	5	15	
Student	6	9	
Income			
<20000	111	65	<0.001
20000-50000	32	29	
50000-100000	5	22	

The study found self-medication to be common across various demographics. Ethnicity (p=0.023), occupation (p<0.001), and income (p<0.001) were significantly associated with self-medication, with Janjati respondents, agricultural workers, and those earning less than 20,000 practicing it more frequently. Age, sex, religion, education, and marital status showed no significant association.

DISCUSSION

In this study, a total of 264 community people were included. Their mean age was 42.37 ± 13.473 years, with 37.9% of participants belonging to the age group of 31-49, which was similar to a study conducted in Pokhara.[11] In this study, males were more likely to report self-medication practices.

The study showed that individuals who practiced self-medication more frequently were those who had studied up to the secondary level, followed by illiterate individuals, those with primary education, and those with education beyond secondary and above. Most of them were farmers and businessmen by occupation. The majority of respondents who practiced self-medication were married and belonged to the Janajati ethnic group. Most respondents who practiced self-medication followed Hinduism. Those with a monthly income of less than 20,000 were more likely to practice self-medication.

The overall prevalence of self-medication in this study was 43.9%, which is similar to the prevalence in Lalitpur Metropolitan City.[12] The prevalence in this study is slightly higher than the prevalence reported in Pokhara Metropolitan City among patients who attended

general health and oral health screening programs in 2018.[11] Major cities in Nepal have a higher prevalence of self-medication practices compared to rural areas. The prevalence of self-medication in Kathmandu Metropolitan City was 78%, followed by 73.23% in Dharan Sub-Metropolitan City and 59% in the general population of Pokhara.[11] Variations in sociodemographic and economic characteristics, cultural differences, varying sample sizes, different research locations, study times, easy accessibility to over-the-counter medications, and lack of healthcare infrastructure might explain the variation in self-medication prevalence.

In this study, most respondents engaged in self-medication practices rarely (once a month) compared to those who engaged in self-medication more frequently. The use of self-medication increased with an increase in sickness.

The most common health conditions prompting self-medication were common cold (85.3%), headache (79.3%), fever (74.1%), cough (33.6%), gastritis (25%), body ache (22.4%), and diarrhea (17.2%). This is similar to findings from a study done in Kathmandu. (6). The most commonly used medicines for self-medication were anticold medications (92.2%), antipyretics (86.2%), and analgesics (52.6%) due to their ease of availability and the knowledge regarding their use. However, the use of antibiotics was low in this study (16.4%), possibly due to less awareness. In contrast, the prevalence of antibiotic self-medication was higher (85%) in Pakistan [16]

In this study, the majority of respondents (70.69%) sought self-medication within 24 hours of illness onset. The common reasons for self-medication were immediate relief of symptoms (52.6%), emergency use (50.9%), ease and convenience (44.8%), prior experience with the medicine (43.1%), and distance from health services (4.3%). However, a study conducted in Kathmandu, Nepal, showed that mild illness was a reason for not consulting doctors.[6]

The means of obtaining self-medication were based on recommendations by pharmacists without a prescription (73.3%) and previous experience with the medicine (57.8%), similar to findings from other studies in Nepal.[6-7] The methods adopted for procuring medicines without a prescription included describing the symptoms of the illness (70.7%) and mentioning the name of the medicine (64.7%), consistent with the study conducted in Kathmandu Metropolitan City.[6] A majority (84.5%) of illnesses were cured or improved after practicing self-medication, 14.06% might have been cured or not, and 0.9% were not cured or improved. The majority (50%) indicated that they stopped taking medication after their symptoms disappeared, showing that respondents were unaware of the importance of completing the full dosage.

The association between the practice of self-medication and selected demographic variables revealed that occupation and income were highly significantly associated (p-value < 0.001) with self-medication practice. Ethnicity was also significantly associated (p-value 0.023) with self-medication practice.

In this study, there was no significant association with age, which is similar to findings from a study conducted in Kathmandu, Nepal.[6] However, this finding is contradictory to the study conducted in Pokhara.[11] Similarly, there was no significant association between education and self-medication practice, aligning with the study conducted in Pokhara, Nepal, in 2018, but contradicting the findings from Kathmandu.[6] There was no significant association with marital status, consistent with the study conducted in Kathmandu, Nepal.[6]

CONCLUSIONS

In conclusion, this study found that the prevalence of self-medication among 264 community members was 43.9%, with the practice being more common among males, those with secondary education, farmers, businessmen, married individuals, Janajati ethnic group members, and those earning less than 20,000 per month. The most common reasons for self-medication included immediate relief of symptoms, emergency use, and ease of access to medications, with anticold, antipyretic, and analgesic medications being the most frequently used. The majority of illnesses were self-medicated within 24 hours, with the majority of respondents reporting improvement. Key factors associated with self-medication were occupation, income, and ethnicity, while age, education, and marital status showed no significant association. The findings highlight the need for better awareness and education regarding the proper use of medications and the importance of completing prescribed dosages, as well as improved access to healthcare services to reduce the reliance on self-medication.

Conflict of Interest

None

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