

Awareness and Practice of Over-the-Counter Drugs in a Selected Community of Nepal

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Abstract

Introduction: In developing countries drug monitoring system is not efficient and patients can easily buy drugs without any prescription. The users believe those drugs to be all safe. There is more awareness regarding over-the-counter drugs in urban population. **Objectives:** To assess the awareness and practice of over-the-counter (OTC) drugs among young and adults in a selected Nepalese community. **Materials and Methods:** A descriptive cross-sectional study was carried out among people of Basundhara, Kathmandu of age group 20-40 years. Non-probability convenience sampling was done to select 384 respondents. Structured questionnaire was used for data collection. The data was analysed in SPSS version 16.0 program. **Results:** The majority of the participants were in the age range of 31-40 years with the mean age of 30.16±5.28. Findings regarding the awareness revealed that 60.7% and 88.1% participants knew the correct meaning and precaution of over-the-counter drugs respectively, 32.8% obtained the information through friends, 55.2% told that easy accessibility was the reason for taking OTC drugs. Drugs using without prescription were 92.4%, 80.2% reuse the previous prescription when the illness was similar, 75.3% suggested others to take over the counter drugs and 46.1% used the medicine even if its color and odor was unusual. **Conclusion:** In conclusion, people are aware about over-the-counter drugs. However, they are taking it rampantly and seem uncontrollable too. Thus, it is important to organise the continuing education for pharmacists and awareness program by policy makers to the community people about appropriate use of OTC medications to prevent the chances of drug misuse.

Key words: Awareness, Drug misuse, Nepal, Over-the-counter drugs, Prescription.

INTRODUCTION

Every day there is some form of practice of over-the-counter (OTC) drugs for self-care of health. Self-medication traditionally means “the taking of drugs” herbs or home remedies on one’s own initiative or on the advice of another person, without consulting a doctor. In developing countries, drug monitoring system is very poor and it is quite easy to buy any drug with or without prescription. Factors like availability of drugs, costlier health care services and avoiding visiting doctor increases the practice of self-medication.^[1]

The practice associated with self-medication in Mekelle, Ethiopia, among 270 respondents most frequently reported illness that prompted self-medication were headache and fever followed by GI disease and RTI. Cost effectiveness, prior experience and mildness of disease were the main reason of self-medication. Pharmacist followed by health care providers were the most frequently reported source of drug information for self-medication.^[2] Similarly, in Mahadevappa Ramoure medical college, out of 440 respondents 368 students practiced OTC drugs. It was higher in fourth year students and the reason could be their increased knowledge about disease and drugs.^[3]

Likewise, in Malaysia out of the 364 respondents, about 82% of the respondents had moderate to low level of awareness regarding OTC drugs and 81% of the participants said that they would stop using the OTC drugs if it did not work within the time frame.^[4]

In developing countries like Nepal, medicines can be acquired from the chemists’ without a prescription which sometimes may have many adverse effects due intake of excessive drugs without a proper diagnosis. A study in Jhapa, Nepal showed, 81.35% of the people were practicing self-medication

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and paracetamol was the most frequently used drug. It indicates self-medication practice is rapidly increasing.^[5]

In a study in Tanzania, the participants demonstrated high awareness on the potential misuse of OTC drugs. Of 270 participants, 50% admitted to have had visited retail pharmacies at least once per month. More than half of the participants (64.1%) reported to have been buying OTC medicines at least once in a month and 55.7% used the medicine as per containers labels instructions.^[6] In a study done in Moradabad, Uttar Pradesh, India, almost all of both rural and urban population practiced self-medication. Majority of participants 60% believed that OTC medications are safe. It was observed that urban areas participants were more aware of OTC drugs and NSAIDs were the most commonly used medication among both urban and rural population respectively 67% and 37%.^[7]

Only 27% of adults in Chapapani-12, Pokhara, Nepal consulted with the doctors before purchasing OTC drugs. Majority of them (94.5%) purchased the medicine from pharmacy. Forty-six percentage of the respondents replied that reason for consuming OTC drugs was to save time as they had to wait long time for doctors. Less than half of the respondents (54%) had good knowledge, 43% had average knowledge and 3% had poor knowledge on OTC drugs. More than half of the respondents 47% had good practice on over the counter drugs.^[8]

A study done in a rural population at Kuthambakkam Village, Tamil Nadu from February 2015 to July 2015 among 165 households, 44.2% reported having health problems currently. Of them, 76.7% replied they consulted a doctor, 17.8% resorted to self-medication and rest 5.5% took native treatment at home.^[9]

After reviewing the literatures and articles from Nepal as well as international context, gaps were identified on awareness and practice regarding OTC drugs. Therefore, the investigators aimed to assess the awareness and practice of OTC drugs among a small sample of Nepalese population.

MATERIALS AND METHODS

A descriptive cross-sectional study was carried out among individuals above 20 years of age living in Basundhara Ward no. 5, Kathmandu, Nepal. A total of 384 respondents were selected by non-probability convenience sampling technique. The sample size calculation is based on a single population proportion formula. Semi-structured questionnaire was used for data collection. The validity of instruments was established by developing the instruments based on literature review and subject expert. The consistency of the instrument was maintained by pre-testing on 10% of the population of Dhapasi, Fisaltale Ward no. 7, Kathmandu. The tool was divided into 3 parts; part I included questions related to demographic information, part II consisted questions related to awareness regarding OTC drugs and part III includes checklist related to practice of OTC drugs. Data collection was done through face to face interview technique after taking informed written consent from all participants. Collected data was coded, entered and analysed using the Statistical Package for Social Science (SPSS) version 16. Descriptive results were interpreted as frequency, percentage, mean, standard deviation and Chi square test was done to show the association between awareness and practice on over the counter drugs, using 95% CI, p -value <0.05 was considered as significant.

RESULTS

Out of 384 respondents, majority of the participants were female (213, 55.5%) as compared to male counterparts (171, 44.5%) (Table 1). More than half of

Table 1: Demographic Information of Participants.

Variables	Frequency	Percentage
Age in years		
20-30	190	49.5
31-39	194	50.5
Mean age 30.16 \pm 5.28		
Gender		
Female	213	55.5
Male	171	44.5
Ethnicity		
Brahmin	204	53.1
Chhetri	101	26.3
Newar	58	15.1
Others	21	5.5
Education status		
Primary	42	10.9
Secondary	73	19.0
Higher secondary	102	26.6
Bachelors and above	167	43.5
Occupation		
House manager	48	12.5
Labor	67	17.4
Business	69	18.0
Agriculture worker	61	15.9
Service	95	24.7
Student	44	11.5
Marital status		
Married	214	55.7
Unmarried	167	43.5
Divorced/Widow	3	0.8

them were Brahmin (204, 53.1%) and 167 (43.5%) were Bachelor and above. About 95 (24.7%) had service and 214 (55.7%) were married.

Majority (65.4%) of the respondents were aware about the correct meaning of over the counter drugs (Table 2). In response to the types of OTC majority (70.3%) said drugs supplements/vitamins (52.7%) antipyretics, (50.8%) analgesics, (45.3%) antibiotics, (49.0%) antacids and (47.4%) antiemetic.

According to them self-medication is done mainly for fever (57.8%), headache (62.5%), mild abdominal pains (27.3%), cough (38.8%), dysmenorrhea (27.1%), sore throat (27.1%), rashes (14.3%) and tingling sensation (14.1%).

Side effects of OTC drugs known to them are allergies (64.6%), nausea/vomiting (57.3%), diarrhoea (47.9%), swelling of feet and legs (16.2%) and shortness of breath (12.8%).

Regarding side effects management, 56.6% said by stopping to take medicine, 35.9% consulted physician, (16%) did nothing and 7.4% took low dose.

In response to reasons of using OTC drugs, 71.2% participants told lack of time to consult doctor, 62% said minor illness, 57% to save time, 53% for quick relief, 36.7% because of inability to afford health care fee and 14.5% due to similarity of previous illness.

Table 2: Participants' Awareness on OTC Drugs.

Variables	Frequency	Percentage
Meaning of over the counter drugs		
Correct	251	65.4
Types of OTC drugs*		
Supplements/vitamins	268	69.8
Antipyretics	184	47.9
Analgesics	175	45.6
Antibiotics	100	26.0
Antacids	84	21.9
Antiemetics	67	17.4
Indications of OTC drugs*		
Dysmenorrhea	214	55.9
Headache	154	40.2
Fever	124	32.4
Mild abdominal pain	95	24.8
Cough	82	21.4
Sore throat	73	19.1
Rashes	55	14.4
Tingling sensation	50	13.1
Side effects of OTC drugs*		
Allergies	195	62.1
Nausea/vomiting	165	52.5
Diarrhoea	124	39.5
Swelling of feet and legs	52	16.6
Shortness of breathing	42	13.4
Others	18	5.7
Management of side effects*		
Stop	213	56.6
Consult physician	135	35.9
Do nothing	60	16.0
Take low dose	28	7.4
Reasons of using OTC drugs*		
Lack of time to consult doctor	270	71.2
Minor illness	235	62.0
Time saving	216	57.0
Quick relief	195	51.5
Inability to afford health care fee	139	36.7
Similarity with previous illness	55	14.5
Precautions to be taken*		
Pregnancy	374	97.4
Lactating mother	89	23.2
Adolescent	46	12.0
Young age	17	4.4
Consequences of OTC drugs*		
Don't know	157	41.0
Dizziness/seizures	82	21.4
Hallucination	81	21.1
Hypertension	75	19.6
Difficulty in breathing	70	18.3
Diarrhoea	68	17.8
Heart attack	51	13.3
Permanent liver damage	46	12.0
Coma	23	6.0

* Multiple responses

Table 3: Participants' Practice of OTC Drugs.

Checklist on Practice of OTC drugs	Yes	No
Drugs used without prescription	355(92.4)	29(7.6)
Watch expiry date of the drugs	323(84.1)	61(15.9)
Use of correct doses as mentioned in medicine cover	312(81.3)	72(18.8)
Reuse of previous prescription when the illness is similar	308(80.2)	76(19.8)
Suggest others to take OTC drugs	289(75.3)	95(24.7)
Drugs used immediately after getting sick	287(74.7)	97(25.3)
Advised others to use the same medicine when condition is similar	286(74.5)	98(25.5)
Drugs used as per the advice of friends and family	281(73.2)	103(26.8)
Drugs used more than 5 times	277(72.1)	107(27.9)
If color and odor of medicine was abnormal still, I use it	177(46.1)	207(53.9)

Majority (97.4%) said that pregnant mother should take precaution before taking OTC drugs and 41% didn't know about the consequences of taking OTC drugs.

Drugs using without prescription were 92.4%, 80.2% reuse the previous prescription when the illness is similar, 75.3% suggest others to take over the counter drugs and 46.1% used the medicine even if its color and odor was abnormal (Table 3).

DISCUSSION

In the present study, among the most frequently used OTC drugs, majority (70.3%) took supplements/vitamins followed by (50.8%) analgesic which is higher than the study findings of India.^[2] Supplements/vitamins consumption was highest (70.3%) followed by antipyretics (52.7%), analgesics (50.8%), antibiotics (45.3%) and antacids (49.0%) in this study. Whereas, the findings are different from the studies done among Bangladeshi undergraduate pharmacy students^[6] and Malaysian urban adults.^[7]

In the current study participants used self-medications mainly for headache (62.5%), fever (57.8%), cough (38.8%), mild abdominal pain (27.3%), sore throat (27.1%) and rashes (14.3%). These study finding are lower than the study finding of Bangladesh undergraduate pharmacy students.^[6]

Regarding the findings of reasons for using OTC drugs are lack of time to consult doctor (71.2%), time saving (57%), quick relief (51.5%). These findings are higher than the study findings of undergraduate medical students from Dhule,^[2] Pokhara,^[4] Bangladesh^[6] and Malaysia.^[7] Similarly, in this study, other reasons behind the OTC drug use were minor illness (62%), inability to afford health care fee (36.7%), similarity with previous illness (14.5%) which are higher than the findings from Northeast Ethiopia,^[8] Bangladesh^[6] and Nigeria.^[9]

Of the 384 participants, 92.4% were using drugs without prescription, 80.2% reused the previous prescription when the illness was similar, 75.3% suggest others to take over the counter drugs, 73.2% used OTC drugs as per the advice of friends and families and 46.1% used the medicine even if its color and odor was abnormal.

CONCLUSION

The usage of over-the-counter drugs is rampant. Both the public as well as the drug dispensing professionals like pharmacists and chemists should be made more aware about the adverse effects of such actions and the long-term consequences of drug resistance. Also, timely monitoring and intervention from the government sector to check such unauthorized usage should be promoted.

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CONFLICT OF INTEREST

The authors declare none.

ABBREVIATIONS

CI: Confidence Interval; **GI:** Gastro Intestinal; **OTC:** Over-the-Counter; **RTI:** Respiratory Tract Infection; **SPSS:** Statistical Package for Social Science

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