

**ORIGINAL RESEARCH ARTICLE****SELF-MEDICATIONS PRACTICE OF PATIENTS VISITING DERMATOLOGY
OUTPATIENT DEPARTMENT OF CHITWAN MEDICAL COLLEGE**N Parajuli ^{1*}, H Jha ¹, A Pokhrel ¹¹ Department of Dermatology and Venereology, Chitwan Medical College Teaching Hospital, Bharatpur 10, Chitwan, Nepal***Correspondence to:** Dr. Niraj Parajuli, Department of Dermatology and Venereology, Chitwan Medical College, Bharatpur, Chitwan, Nepal.Email: drnirajparajuli@gmail.com**ABSTRACT**

A simple pretested questionnaire was used to find out on the pattern of self-medications and prior outside consultation in patient visiting Chitwan Medical College (CMC). A total of 160 patient were included in the study. Out of the total 160 respondents, 83.1% did some form of consultation outside medical college. Majority of them sought treatment from non-doctors (77.4%) to only a few (22.6%) with a medical doctor. Majority of the patients (88.1%) had some form of self-medications over the last one year period.

Key words: *Consultations, Dermatology, Self-medications.***DOI:** <http://dx.doi.org/10.3126/jcmc.v5i3.16526>**INTRODUCTION**

Self-medication has been defined in various ways as the act of procurement and consumption of pharmaceuticals without consulting medical practitioner.¹ In economically deprived communities, most episodes of illnesses are treated by self-medication.^{2,3} Due to the hilly terrain in Nepal, the poor socioeconomic status, the high cost of modern medicines and non-availability of doctors in rural areas, difficulties arise in accessing modern healthcare. Drug retail shops frequently serve as the public's first point of contact with the healthcare system.⁴ In India, another south Asian country with economic and cultural similarities to Nepal, pharmacists and pharmacy attendants play an important role in fostering self-medication among the public.⁵ Non-doctor prescribing of medicines is also common in developing countries.^{2,3} In Nepal, certified health assistants (CHAs) and community health volunteers (CHVs) carry out preventive and curative health activities in rural areas.⁶ Complementary and alternative medicine (CAM) practitioners are found in both the rural and urban areas.⁷ The World Health Organization supports responsible self-medication as it economizes on both the individual and the health care system.⁸ Self-care is defined by World Health Organization (WHO) as activities that individuals, families and communities

undertake with the intention of enhancing health, preventing disease, limiting illness, and restoring health.⁹ Self-care and self-medication have attracted considerable international healthcare policy interest, because they do not only effectively reduce the burden on health services, but also improve compliance and disease outcome.^{10,11}

But on the other hand, use of nonprescription drugs is a serious problem that has increased over the past few years.¹² Matoulková and colleagues found that convenient access to a large variety of over the counter (OTC) medicines presents patients with the opportunity for the self-treatment of many health problems. Yet this also brings on other health risks, especially to the elderly.¹³

The abuse of medications is more common in youth and it might be due to pharmaceutical industries media advertisement strategies. This raises flawed self-assessment, drug interaction and misuse.¹⁴

There are only few studies on self-medication pattern done in Nepal and till date no such studies have been published focused in Chitwan. This city is also popular being medical city of the country due to multiple tertiary care hospital and two medical colleges. But still a lot of patients get treatment from paramedics and pharmacists rather than coming to tertiary central for specialist doctors.

OBJECTIVE

General- To find the self-medication practice of

patients visiting the dermatology OPD of Chitwan Medical College

Specific:

- 1) To find the prevalence of self-medication practice over the previous 1 year.
- 2) To find the rationale of treatment done from outside medical college
- 3) To find the demographic details of patients visiting the dermatology OPD
- 4) To find the average duration of problem before seeking consultation, place of consultation apart from medical college and the medications prescribed.
- 5) To find the correlation of self-medication with education, profession, distance from the medical college, cost of medications, travel time and transportation cost to reach the medical college.

Methodology:

Study design: This study is a cross-sectional study was done in Chitwan Medical College Teaching Hospital, Bharatpur, Nepal for a period of three months from 2070/9 to 2070/11.

Study population: A total of 160 randomly selected patients coming to dermatology OPD of CMCTH were included in this study. A simple questionnaire was used. Interview was conducted by the 4th year nursing students only on Monday, Wednesday and Friday. The questionnaire included few demographic details and practice of outside consultation prior to visit to skin OPD for dermatological problems.

Study tool: Prior to commencement of data collection, the study questionnaire was pretested with 10 respondents to evaluate its validity and comments received were taken into consideration in the reconstructed questionnaire. A questionnaire was used with Nepali translation with initial demographic information of the patients followed by question which included distance to medical college from the patient's residence, travel cost, prior consultation, place of consultation, medical personal of consultation, issuing of prescription, cost of medications issued, laboratory tests done or injection taken and any self-medication done in the past 1 year.

Study period: A total of 3 months from 2070/9 to 2070/11.

Data analysis: Data was analyzed statistically using software SPSS version 19 and Chi square test was applied to identify the significant association among variables.

Selection criteria

Inclusion- Any patient coming to dermatology OPD of Chitwan Medical College

Exclusion criteria- Age less than 15 years.

Patients with psychiatric illness

Patient on long-standing medical

illnesses.

Patient unwilling to give consent

Patient who had a dermatological

problem during travel to Chitwan.

METHODS AND METHODOLOGY

A questionnaire study was done in Chitwan Medical College Teaching Hospital, Bharatpur, Nepal for a period of three month from 2070/9 to 2070/11. A total of 160 randomly selected patients coming to dermatology OPD of CMCTH were included in this study. A self-constructed questionnaire was used. Prior to commencement of data collection, the study questionnaire was pretested with 10 respondents to evaluate its validity and comments received were taken into consideration in the reconstructed questionnaire. Interview was conducted by the 4th year nursing students only on Monday, Wednesday and Friday.

Permission was obtained before conducting the study from the ethics committee of the institution. The purpose of the study was explained in details to the participants and confidentiality was ensured. Written informed consent was obtained from every participant before filling the questionnaire.

RESULTS

The response rate was 100%. Brahmins were the most common caste (44.4%) followed by Chhetris (13.1%).

Out of the total 160 respondents, 83.1% did some form of consultation outside medical college.

Majority of them sought treatment from non-doctors

(77.4%) to only a few (22.6%) with a medical doctor. only 1.9% chose health-post as their first place of consultation.

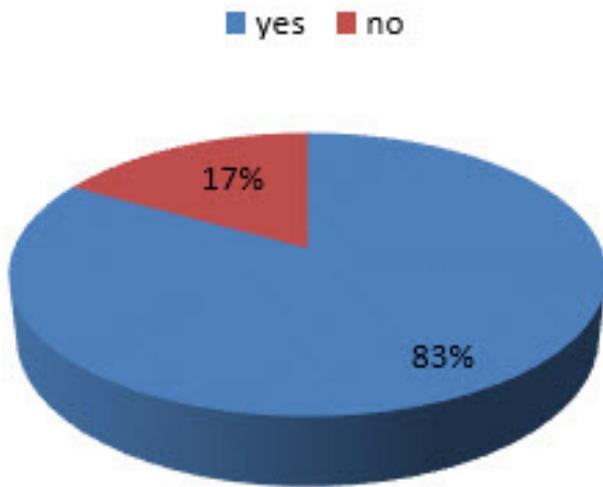


Figure 1: Distribution of patients according to consultation done outside medical college.

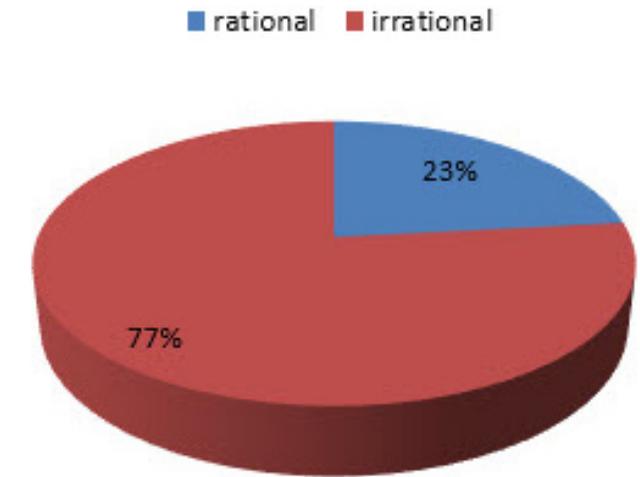


Figure 3: Distribution of patients according to treatment rationale received from outside CMC

A more significantly rationale treatment was done by a registered doctor as compared to paramedics and others ($p < 0.01$).

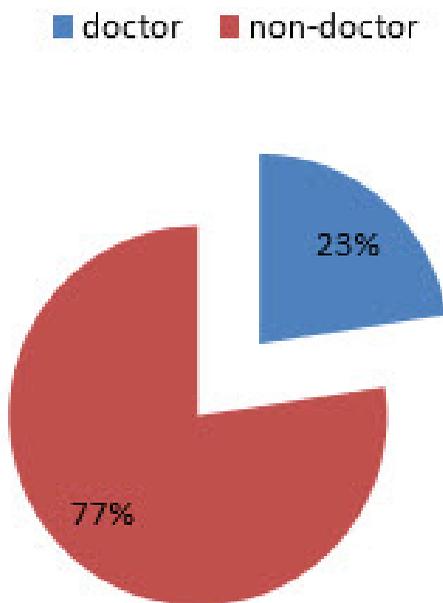


Figure 2: Distribution of patients according to treating personnel during a prior consultation

Among the patients seeking treatment outside the medical college, only 23.3% were treated rationally. Most of these consultations took place in a pharmacy or clinic setting (67.5%) and only 11.3% preferred consultation in a tertiary care center. Surprisingly,

Table 1: Distribution of patients according to time interval between consultation and duration of symptoms

Duration of symptoms	Number of patients
Less than 1 week	31 (19.4%)
1 week- 1month	38 (23.8%)
More than 1 month	91 (56.9%)

Most of them consulted dermatology OPD for problem of duration more than 1 month (56.9%). Only 19% sought consultation within one week of onset of problem.

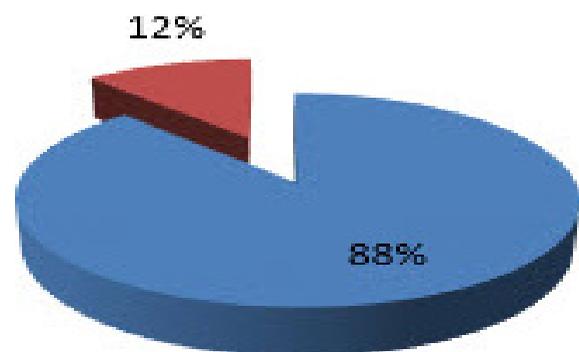


Figure 4: Distribution of patients according to use of self-medications in past 1 year

Similarly, majority of the patients (88.1%) also did some form of self-medications over the last one year period.

Most common age group was in 25- 50 years group (43.1%) with another large group (40%) were 15-25 years old. Most of patients had an education level of School leaving certificate to Bachelors level (42.5%) whereas only 28.8% were illiterate. Majority of these patients were living within 10 kms distance from the medical college (56.2%) Most of the patients had to spare only 50 Nepalese rupees to reach medical college (46.3%). But only 16.9% of them chose medical college as their first place of consultation. But nevertheless, many patient spent upto 500 NRs (43.1%) during their consultation outside medical college. Some spent even more than 500 NRs (23.8%).

Table 2: Medical expense for patient during consultation outside medical college (in NR)

Expenses for patient (in Nepalese rupees NRs)	Number of patient
Less than 100 rupees	26 (16.3%)
100-500 rupees	69 (43.1%)
More than 500 rupees	38 (23.8%)
Missing	27
Total	160

According to treating dermatologist at Chitwan medical college, most common diagnosis were infections (35.8%) followed by eczematous disorders (22%).

No correlation could be derived between consultation done outside medical college with age, sex, education, profession, duration of illness, distance from the medical college or travel cost to reach medical college(p<0.05). But a significant correlation was noted between education level to preference for consultation with a doctor as compared to non-doctors (p <0.05%) in a consultation done outside medical college.

Likewise, no significant correlation was noted with self-medications over the last one year according to sex, profession of the patients, duration of illness, distance from the medical college, or travel cost to reach medical college(p<0.05%).

But interestingly, a significant strong correlation was noted between rationale treatment and treating person as compared with the treatment cost (p<0.009).

DISCUSSION

This study showed greater population practicing self-medication in the past 1 year (88.1%) as compared to other studies of variable results.^{15,16} This is similar to study conducted in Ethiopia, which showed that out of a total of 414 students, 213 (51.5%) reported at least one episode of an illness, and 82 (38.5%) of them practiced self-medication.¹But Pandey and colleagues on the other-hand found that only 56% practiced self-medication over the past six months in the Pokhara valley. Similarly, another study done in Iranian students showed 76.6% of the college students

had used analgesics in self-medication in the previous 3 months.¹⁷ But there is also a study from Puducherry which showed the prevalence of self-medication to be at only 11.9%¹⁸. The larger prevalence of patients practicing self-medication might be resulting from the rampant nature of prescribing over-the-counter medication as well as patient's willingness to try different medications rather than consultation for dermatological problems. Distance plays a vital role in the use of health facilities.¹⁹ This study, however, shows that urban respondents were more frequent users of self-medication since in this study the majority of the patients using self-medications were living within 10 kms distance from the medical college (56.2%).

The use of nonprescription medicine among patients/consumers was reported by 66.9% of pharmacists to have increased in the past 4 years in a study conducted in Egypt but this study found similar pattern in use of self-medications over last one year compared to the current dermatological problem (88.1% vs 83.1%).²⁰ There was similar response on both sexes regarding self-medication in this study. But there are conflicting reports of response rate in different studies. Some of them have a higher response rate of self-medication from females^{16,21} and other with males.¹⁷

In this study, a significantly higher proportion of outside consultation prior to seeking consultation in Chitwan Medical College was found in older patients

of more than 50 years of age. This contradicts the finding from Pokhara which showed more self-medications among the young age groups correlating it to better education.¹⁷

The absence of a significant difference in rural *versus* urban prescribing of allopathic drugs by persons other than an allopathic doctor is surprising, given the concentration of doctors in urban areas in Nepal¹⁷. The findings from this study was even worse considering the fact that Chitwan has been known as a medical city with more than 500 doctors both specialist and non-specialist with many of them reaching to periphery clinics on regular basis but still paramedics and pharmacist were prescribing allopathic medications beyond their capacity. This fact could be seen as patients seeking consultation with doctors vs non-doctors (23% vs 77%) prior to seeking consultation at CMC. Similarly, a significant correlation between rationale treatment provided by doctors with non-doctors with $p < 0.01\%$ further proves the fact that non-doctors are prescribing over-the-counter medications beyond their capacity.

A study done in Kathmandu showed that all retailers were engaged in diagnostic and therapeutic behavior beyond their scope of training or legal mandate. Although legislation in Nepal mandates a medical prescription for purchase of antibiotics, unauthorized dispensing is clearly problematic.²² Drug retailers in

this study did not demonstrate adequate understanding of the disease processes to justify their use of these drugs. In this study as well, prescription were not issued to patient's seeking treatment outside. Only 23% of patients were given rationale treatment which only correlated significantly by medications provided by doctors ($p < 0.001$). Clearly it shows that the paramedics and pharmacist are treating patients beyond their comprehensive knowledge.

RECOMMENDATION

A greater public awareness is required to decrease the rate of outside consultation and self-medications. Patient should be made aware of the adverse effect associated with any kind of medication.

A strong government rule is needed to be implemented regarding drug regulation and monitoring.

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