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## **A cross sectional study on self medication practice of analgesics among nursing students**

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**Abstract**---Background: Self medication with analgesics is prevalent worldwide among medical students due to easy availability as over the counter drugs. Materials and Methods: A cross-sectional study was conducted on nursing students of Dr. B.R. Ambedkar Medical College, Bengaluru. A Pre-designed questionnaire was used to collect relevant information on self medication of analgesics. Data was analyzed using descriptive statistics. Results: A total of 90 students participated in the study. Practice of self-medication was reported by 87.3% nursing students. The most common condition for self-medication was headache (42.86%), followed by dysmenorrhoea (32.38%). Non seriousness of illness (69.4%) was the major reason followed by prior experience (62.6%) for seeking self medication. Most common source of drug information was previous prescription of a physician (61.2%) followed by pharmacist's advice (46.7%). Among these students, 34.4% were unaware about adverse drug reactions and 51.1% were unaware about drug interactions. Conclusion: The present study

indicates that self-medication is widely practiced among nursing students. Consumption of over the counter analgesics can mask the actual diagnosis of the underlying disease. It is also necessary to create awareness among the nursing students regarding the dangers of self medication.

**Keywords**---self medication, analgesics, over the counter drugs, nursing students.

## **Introduction**

Self-medication is an important concern for health authorities at global level. According to the WHO's definition "Self medication is the use of drugs to treat self – diagnosed disorders or symptoms, or the intermittent or continued use of a prescribe drug for chronic or recurrent diseases or symptoms." <sup>1</sup> Self-medication is not only prevalent in general population but is also common among the health care providers. Medical students have basic knowledge about drugs. Therefore they are more prone to indulge in self medication compared to the general population. <sup>2</sup>

Easy availability of wide range of drugs without prescription of registered practitioner coupled with inadequate health care services in our country is the major factor responsible for irrational use of drugs as self-medication.<sup>3</sup> The irrational medication can have a negative outcome in some and may have an epidemiological impact on the society as it can lead to resistance, adverse reactions, interactions, drug dependence besides wasting financial resources.<sup>4,5.</sup>

Analgesics are one of the commonly available over the counter drugs. FDA has strongly advocated that labeling of over the counter drugs should be easy to understand by the consumer and should contain the list of active ingredients, warnings, directions and inactive ingredients.<sup>6</sup> A very few studies have been conducted in India on self medication practice among the nursing students. Hence this study was undertaken to assess the knowledge and to know about the practice of self medication with analgesics among nursing students.

## **Methods**

It was a cross-sectional, questionnaire-based study conducted on 2<sup>nd</sup> year B.Sc. nursing students of Dr. B. R. Ambedkar Medical College, Bengaluru in June 2022. A predesigned semi-structured questionnaire was used to collect the relevant information. . It included both open- ended and close-ended questions. The study protocol was approved by the Institutional Ethics Committee. The questionnaire was distributed to 2<sup>nd</sup> year B.Sc. nursing students and data was collected in the lecture hall. Appropriate instructions about filling the questionnaire were given. They were also informed that the information collected would be kept confidential and participation would be totally voluntary. Only completely filled questionnaire were included for statistical analysis and incompletely filled questionnaire were excluded for the analysis. Students were given 20 minutes to fill and return the questionnaire. Students not willing to

participate in the study and incompletely filled questionnaires were excluded from the study.

### **Statistical Analysis**

Data collected was analyzed using descriptive statistics and results were expressed in numbers and percentage.

### **Results**

A total of 92 students participated in the study and filled the questionnaire. 2 questionnaires were incomplete and excluded from the study. 65 students (72.2%) were females and 25 (27.7%) were males. They were in the age group of 18 – 20 years. 75.5% students had some knowledge regarding definition of self medication and 65.5% students were aware about the side effects of analgesics. They did not have knowledge regarding the difference between opioid and non- opioid analgesics, dose, duration of treatment and drug interactions. (Table 1) The most common condition for self medication with analgesics was headache (51.1) and dysmenorrhoea (23.3%) (Table 2) The most common reason for seeking self medication was non seriousness of illness (69.4%) and prior experience of illness (62.6%). (Table 3) The most common source of information for self medication was the previous prescription of a physician (61.2%), followed by pharmacist's advice (46.7%). (Table 4)

### **Discussion**

The present study shows that the self medication is widely practiced (90.1%) by the nursing students of this institute. It is similar to other studies done by Divya etal <sup>7</sup>(88.24%) and Ali SS <sup>8</sup> (84.5%). This might be because the students study Pharmacology in second year and hence feel that they can practice self medication as they have some knowledge about drugs. The present study revealed that students mostly choose analgesics for headache (51.1) and dysmenorrhoea (23.3%). Headache was the most common indication as reported by previous studies.<sup>9,10</sup>

Most of the students had some knowledge regarding definition of self medication (75.5%) and 65.5% students were aware about the side effects of analgesics. The most common reason for use of self medication in the present study was non seriousness of illness (69.4%) which is similar to a study done by James H, etal <sup>11</sup> The most common source of drug information reported was the previous prescription of a physician (61.2%), followed by pharmacist's advice (46.7%). These study findings are supported by previous studies.<sup>12,13</sup> Emphasis should be given on rational use of medicine in the undergraduate curriculum to avoid side effects. More stringent rules should be introduced on dispensing of drugs without prescription across the pharmacies in the country which can aid to reduce self medication practices.

A significant percentage of paramedical students do not know about the exact precautions to be followed while taking analgesics. Since paramedical staffs play a vital role in patient care, emphasis should be given to educate paramedical

students regarding rational drug administration. The present study has certain limitations such as attitude of students towards self medication was not tested. There is also a probability of recall bias and mutual influence between the students while filling the questionnaire.

### Conclusion

This study indicates that self-medication is widely practiced among nursing students in our institute. Consumption of over the counter analgesics can mask the actual diagnosis of the underlying disease. It is also necessary to create awareness among the nursing students regarding the dangers of self medication as they play a vital role in patient care. There is also a great responsibility on drug regulatory authorities to curb the practice of self medication.

Table 1: Assessment of knowledge on self medication of analgesics

Sl.No	Knowledge regarding self medication of analgesics	Not at all n (%)	Some n (%)	None n (%)
1	Do you have the knowledge about definition of self medication ?	15 (16.6)	68 (75.5)	7 (7.7)
2	Do you know the difference between opioid and nonopioid analgesic ?	50 (55.5)	34 (37.7)	6 (6.6)
3	Do you know the dose of analgesic used in the treatment of the concerned disease?	58 (64.4)	32 (35.5)	0
4	Do you know the duration of treatment with analgesic for the concerned disease?	68 (75.5)	22 (24.4)	0
5	Do you know the available dosage form of the analgesics?	48 (53.3)	39 (43.3)	3 (3.3)
6	Do you know the side effects of analgesics ?	31 (34.4)	59 (65.5)	1 (1.1)
7	Do you know the drug interactions with the use of analgesics ?	57 (63.3)	33 (36.6)	0

Table 2: Conditions for self medication with analgesics

Sl.No	Conditions	Frequency (%)
1	Headache	46 (51.1)
2	Dysmenorrhoea	21 (23.3)
3	Backache	10 (11.1)
4	Toothache	7 (7.7)
5	Abdominal pain	6 (6.6)

Table 3: Reasons for self medication

Sl. No	Reasons for self medication	Percentage
1	Non seriousness of illness	69.4
2	Prior experience of illness	62.6
3	Convenient	53.2
4	Cost effectiveness	41.7
5	Limitation of time	23.3

Table 4: Sources of information

Sl. No	Sources of information	Percentage
1	Previous prescription	61.2
2	Pharmacist advice	46.7
3	Own opinion	32.6
4	Medical Textbooks	21.3
5	Internet	14.5
6	Advertisement	12.4

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