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# **Knowledge and Practice Regarding Self-Medication of Analgesic Drugs of the Students of Nursing Institute, Naogaon**

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### ABSTRACT ARTICLE DETAILS

This was a cross-sectional type of descriptive study that was carried out with a view to assessing knowledge and practice regarding self-medication of analgesic drugs of the students of the Nursing Institute, Naogaon. The sample size was 175 which were selected purposively. The mean age was 19.34±0.95 years. Here, 56.0% knew self-medication practice is a bad habit for a nursing student, 92.0% of respondents said that pain-relieving drugs are dangerous without anti-acid drugs, 60.0% told that self-medication practice is completely unethical, most 85.7% told that purchase of medicine needs a prescription, 67.43% respondents took medicine without doctor's advice. This study provides some important information which might help the concerned people to take appropriate measures and might be the basis for further in-depth study on this issue.''

**Keywords:** Self-medication, analgesic drugs, nursing student, knowledge, practice.

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## INTRODUCTION

Self-medication, the practice of individuals treating their own health conditions without consulting a healthcare professional, is a common phenomenon, particularly when it comes to managing pain using analgesic drugs. The knowledge and practice of self-medication with analgesics can have significant implications for individuals' health outcomes and well-being. Therefore, it is crucial to understand the benefits, risks, and responsible use of these medications.

Self-medication with analgesics accounts for a significant proportion of over-the-counter medication use. The accessibility and availability of these drugs without a prescription makes them convenient options for individuals seeking relief from common conditions such as headaches, muscle aches, and minor injuries [1]. However, the study also highlighted that improper or excessive use of analgesics can lead to adverse effects and potential drug interactions. A study conducted by Porteous et al. (2020) emphasized the widespread prevalence of self-medication with analgesics, highlighting that it accounts for a significant portion of overthe-counter medication use globally [2]. However, it is essential to approach self-medication with caution and

Adequate knowledge. Inadequate knowledge and misconceptions about analgesic drugs can lead to improper use and potential harm. Without a proper understanding of dosage, contraindications, and potential side effects, individuals may inadvertently put themselves at risk [3].

Analgesic drugs, such as nonsteroidal anti-inflammatory drugs (NSAIDs) and acetaminophen (paracetamol), are commonly used for the relief of pain, fever, and inflammation. These medications are readily available in various formulations, including tablets, capsules, creams, and syrups, making them easily accessible for self-medication purposes. The prevalence of self-medication with analgesics is influenced by factors such as cost, convenience, prior knowledge, and cultural norms [4]. Moreover, selfmedication can be particularly beneficial in situations where prompt medical attention is unavailable or inaccessible [5]. Inadequate knowledge about potential contraindications, precautions, and side effects can further contribute to misuse and harm. Additionally, self-medication may mask underlying medical conditions or delay appropriate medical diagnosis and treatment [6]. Numerous studies have investigated the prevalence, patterns, and factors influencing self-medication practices with analgesic drugs. For example,

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a study conducted by [7] in Portugal found that 85% of the surveyed population engaged in self-medication practices, with analgesics being one of the most commonly used drug classes. Adequate knowledge and understanding of analgesics are essential to ensure their safe and effective use in self-medication practices. Healthcare professionals play a crucial role in educating individuals about appropriate analgesic use, raising awareness of potential risks, and promoting responsible self-care practices.

#### MATERIAL AND METHODS

**Study design:** This was a cross-sectional type of descriptive study.

**Place of study:** This study was carried out at Nursing Institute, Naogaon, Bangladesh.

**Duration of the study:** The duration of the study was 8 months from September 2015 to April 2016.

**Study population:** The students of the Nursing Institute, Naogaon constituted the study population.

**Sample size:** The sample size of the study was 175.

**Sampling technique:** Purposive sampling technique was followed.

### Research question

What is the level of knowledge of students of the Nursing Institute of Naogaon regarding the self-medication of analgesic drugs?

### **Objectives**

The study was carried out with a view to assessing knowledge and practice regarding the self-medication of analysesic drugs of students of the Nursing Institute of Naogaon.

**Data collection instrument:** A partially structured questionnaire which was duly pre-tested was used to collect data from the respondents.

**Data collection procedure:** The researcher herself collected data from the students of the Nursing Institute, Naogaon by face-to-face interview.

**Data analysis:** After proper verification, data were coded and entered into the computer by using the SPSS program version 25. And central tendency

RESULT

Table 1: Distribution of the respondents by sociodemographic characteristics (n = 175)

Age in group	Frequency	Percentage
Less than 18 years	33	18.86
18-22 years	142	81.14
Monthly family income		
Up to Taka-10,000	118	67.43
Taka 10,001-20,000	41	23.43
More than 20,000	16	9.14
Place of living		
Rural	134	76.57
Urban	41	23.43
Total	175	100.00

This table showed the distribution of the respondents according to sociodemographic characteristics. Regarding the age distribution of the respondents, it was found that most (81.14%) of the respondents were in the age group of 18-22 years and 18.86% were in the age group of less than 18 years. The mean age of the respondents was  $19.34 \pm 0.95$  years. The majority 67.43% (n=118) of the respondents had a monthly

income of up to Taka 10,000, followed by Taka 10,001-20,000 (n=41, 23.43%), and only 9.14% (n=16) belonged to the income group more than Taka 20,000. The average monthly family income was Tk. 13306.29±8012.29. It was revealed that the majority (n=134, 76.57%) of the respondents came from rural areas and (n=41, 23.43%) respondents came from urban areas.

Table 2: Distribution of the respondents by knowledge about self-medication of analysis drugs (n = 175)

	Answer			
Parameter	Yes		No	
	Frequency	%	Frequency	%
Distribution of the respondents by knowing about self- medication	164	93.71	11	6.29
Distribution of the respondents by knowing the name of some analgesic drugs	162	92.57	13	7.43
Distribution of the respondents by knowing about NSAID	92	52.57	83	47.43
Distribution of the respondents by knowing long time NSAID is vulnerable to kidney failure	93	53.14	82	46.86

Distribution of the respondents by knowing self-medication	98	56.0	77	44.0
practice influence addiction				
Distribution of the respondents by knowing self-medication	98	56.0	77	44.0
practice is a bad habit for a nursing student				
Distribution the respondents by knowing pain-relieving	161	92	14	8.0
drugs are dangerous without anti-acid drugs				
Distribution of the respondents by knowing pain-relieving	140	80	35	20
drugs may cause perforation				
Distribution of the respondents by knowing self-medication	124	70.86	51	29.14
practice should always be avoided by a nursing student				
Distribution of the respondents by knowing self-medication	105	60.0	70	40.0
practice is completely unethical				
Distribution the respondents by knowing the purchase of	150	85.71	25	14.29
medicine needs prescription				

This table revealed that most of the respondents (n=164, 93.71%) knew about self-medication, (n=162, 92.57%) respondents knew the names of some analgesic drugs, (n=92, 52.57%) respondents knew about NASID, (n=93, 53.14%) of the respondents knew about long time NSAIS is vulnerable for kidney failure, (n=98, 56.0%) respondent knew self-medication practice influence addiction, (n=98, 56.0%) respondents knew self-medication practice as bad habit for a nursing student, (n=161, 92%) respondents mentioned that

pain-relieving drugs are dangerous without anti-acid drugs, (n=140, 80%) respondents told that pain-relieving drugs may cause perforation, (n=124, 70.86%) respondents told that self-medication practice should always be avoided by a nursing student, (n=105,60%) respondents told that self-medication practice is completely unethical and (n=150, 85.71%) respondents told that purchase of medicine needs a prescription

Table 3: Distribution of the respondents by practice of self-medication of analgesic drugs (n = 175)

	Answer			
Parameter	Yes		No	
	Frequency	%	Frequency	%
Distribution of the respondents by knowing always self-medication was not needed	47	26.86	128	73.14
Distribution of the respondents by taking medicine without doctor's advice.	118	67.43	57	32.57
Distribution of the respondents by taking medicine by representative's advice.	40	22.86	135	77.14
Distribution of the respondents by any bitter experience after self-medication.	91	52.0	84	48.0
Distribution of the respondents by suffering from side effects after any pain-relieving drug.	54	30.86	121	69.14
Distribution of the respondents by reading literature while purchasing medicine without a prescription	157	89.71	18	10.29
Distribution of the respondents by asking pharmacist while purchasing medicine without a prescription	120	68.57	55	31.43

This table revealed that most of the respondents (n=128, 73.14%) told that always self-medication was not needed, (n=118, 67.43%) of the respondents took medicine without a doctor's advice, (n=135, 77.14%) respondents did not take medicine by representative's advice, (n=91, 52.0%) respondents had a better experience after self-medication,

(n=121, 69.14%) respondents suffer from side-effect after any pain relieving drug, (n=157, 89.71%) respondents read literature while purchasing medicine without prescription and (n=120, 68.57%) respondents asked pharmacist while purchasing medicine without a prescription.

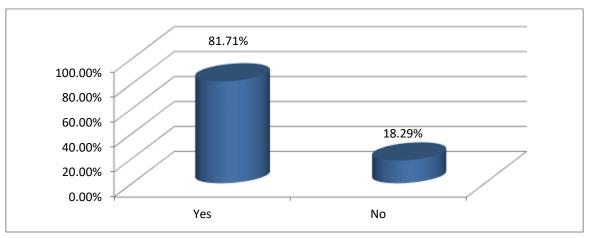


Figure 1: Distribution of the respondents by knowing complications of analgesic medicine (n=175)

Figure 1 shows that 81.71% (n=143) of the respondents knew analysesic complications and the remaining (n=32, 18.29%) answered no.

#### DISCUSSION

The cross-sectional descriptive study aimed to assess the knowledge and practice of self-medication with analgesic drugs among nursing students at the Nursing Institute in Naogaon, Bangladesh. The findings are important for understanding the self-treatment practices of this specific population and identifying areas that require intervention and further investigation.

The results indicated that the majority of respondents were in the age group of 18-22 years, with a mean age of 19.34±0.95 years. This age distribution is consistent with other studies conducted among young adults and student populations [8]. It is noteworthy that young adults are more likely to engage in self-medication practices, possibly due to their relatively good health and easy access to over-the-counter medications [9].

Regarding the knowledge of self-medication with analgesic drugs, a significant proportion of respondents demonstrated awareness about various aspects of self-medication. Notably, a high percentage (93.71%) of respondents were aware of the concept of self-medication. Similar findings were reported in studies conducted among young adults and university students [10]. This high awareness might be attributed to the prevalence of self-medication practices and the easy availability of analgesic drugs without a prescription.

However, despite the overall awareness, there were some gaps in knowledge. For instance, only 53.14% of respondents knew about the vulnerability of long-term NSAID use to kidney failure. This finding is consistent with research highlighting the inadequate understanding of potential risks associated with analgesic use [11]. The lack of awareness about specific risks emphasizes the need for targeted educational interventions to improve knowledge and promote responsible self-medication practices.

The study also explored the self-medication practices among nursing students. It was concerning that a significant portion (67.43%) of respondents reported taking medicine without a doctor's advice. This behavior might be driven by factors such as convenience, prior experience with similar health issues, and familiarity with analgesic drugs [12]. However, this practice can lead to potential harm, especially if individuals lack adequate knowledge about appropriate dosage and potential drug interactions.

On the positive side, a considerable number of respondents (89.71%) reported reading literature before purchasing medicine without a prescription. This behavior indicates a proactive approach to seeking information about the medications they use. Encouraging such behavior can contribute to better-informed decisions and safer self-medication practices [13].

Comparing the findings of this study with existing literature, similar patterns of self-medication practices have been observed among young adults and student populations in other regions [14]. However, the specific knowledge gaps and practices may vary across different cultural contexts and healthcare systems. For example, in a study conducted in Portugal, researchers reported a high prevalence of self-medication practices, with analgesics being commonly used drugs [15]. These findings highlight the global significance of self-medication with analgesics and the need for tailored educational strategies to address knowledge gaps and promote responsible self-care practices.

#### **CONCLUSION**

The study sheds light on the knowledge and practice of self-medication with analgesic drugs among nursing students in the Nursing Institute, Naogaon, Bangladesh. While the respondents demonstrated awareness of self-medication, specific knowledge gaps and risky practices were identified. To promote responsible self-medication, targeted educational interventions are crucial. Healthcare professionals can play a pivotal role in raising awareness about potential risks, proper

analgesic use, and the importance of seeking professional advice. Further research is warranted to explore the reasons behind self-medication practices and to assess the effectiveness of educational interventions in improving knowledge and practices related to analgesic drug use among nursing students and similar populations.

# RECOMMENDATIONS

The study recommends implementing educational programs targeting nursing students and young adults to enhance knowledge about self-medication of analgesic drugs, emphasizing responsible practices and potential risks. Health literacy should be promoted to encourage informed decision-making and professional consultation should be encouraged before self-medicating. Regular monitoring of self-medication practices, strengthening regulatory measures, and involving pharmacists in educating individuals about proper analgesic use are essential. Research collaboration, and integrating self-medication education in nursing curricula, and public health campaigns can further improve safe and effective self-medication practices.

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### **Conflict of interest:**

None to declare

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