

Adverse Effects of Antipyretic, Analgesic and Antispasmodic Drugs Among College Students

Ms. Diana Fernandes^{1*}, M.s Prachi Vavhal², Ms. Sakshi Shinde³

^{1*} Associate Professor SMES, Smt Sunanda Pravin Gambhirschand Institute of Nursing and Para-medical Sciences

² Clinical Instructor SMES, Smt Sunanda Pravin Gambhirschand Institute of Nursing and Para-medical Sciences

³ Student SMES, Smt Sunanda Pravin Gambhirschand Institute of Nursing and Para-medical Sciences

***Corresponding Author:** Ms. Diana Fernandes

* Associate Professor SMES, Smt Sunanda Pravin Gambhirschand Institute of Nursing and Para-medical Sciences

Introduction

The consumption of antipyretic, antispasmodic, and analgesic drugs among college-going students is often necessary due to the physical and mental demands of academic life. Students frequently experience conditions such as headaches, menstrual cramps, muscle pain, and fever, which can interfere with their ability to attend classes, focus on studies, or participate in extracurricular activities. Analgesics help relieve pain, antipyretics reduce fever, and antispasmodics ease muscle or abdominal cramps, allowing students to maintain productivity and comfort during stressful periods. However, while these medications offer quick relief, there is a growing need for responsible use, as misuse or self-medication without proper guidance can lead to side effects or long-term health risks. Therefore, increasing awareness about safe usage and encouraging consultation with healthcare providers is vital to ensure that students benefit from these drugs without compromising their health.

PROBLEM STATEMENT

A study to assess the effect of planned teaching programme on knowledge regarding adverse effect of antipyretic, analgesic and antispasmodic drug among college students of metropolitan city.

OBJECTIVE OF STUDY

1. To assess the existing knowledge of junior college students about antipyretic, analgesic and antispasmodic drugs.
2. To evaluate the pre-test and post-test scores about antipyretic, analgesic and antispasmodic drugs among junior college students.
3. To find out the association between the pre-test and post-test knowledge scores.

Methodology

Research Approach & Design: Quantitative, Experimental design

Setting: Selected college in Mumbai

Population: College students

Sample: Students in the age group of 16-21 years

Sample size: 30

Technique: Nonprobability convenient sampling

Tool: Semi Structed Questionnaire

Technique: Interview

Findings

A] Demographic data

The data stated that majority of students (60%) were in the age group of 16-18 years, 40% in the age group of 19-21 years. 76.7% of the samples were taking antipyretic, antispasmodic, and analgesic medications, while 23.3% were not consuming any such medications. Additionally, 50% of the samples were receiving some medication or treatment, while the other 50% were not taking any treatment.

B] Adverse effects of medications

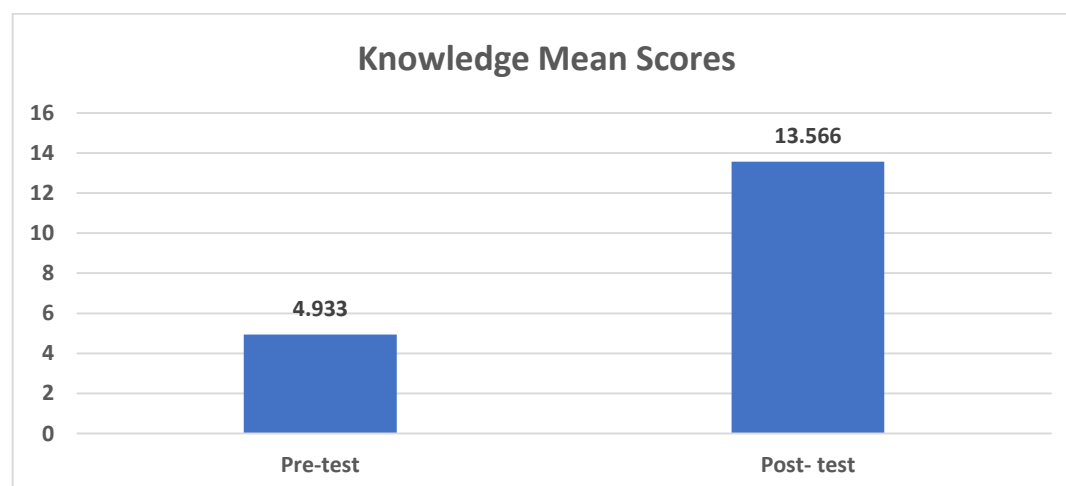
Antipyretic, antispasmodic, and analgesic drugs, while effective in managing fever, muscle spasms, and pain, can cause a range of adverse effects, especially when used improperly or over extended periods. Antipyretics like acetaminophen may lead to liver toxicity if taken in high doses, while NSAIDs such as aspirin and ibuprofen can cause gastrointestinal irritation, ulcers, kidney dysfunction, and increased risk of cardiovascular events. Analgesics, particularly opioids, may result in drowsiness, constipation, respiratory depression, and dependence with long-term use. Antispasmodics, especially those with anticholinergic properties like hyoscine or dicyclomine, may cause dry mouth, blurred vision, dizziness, urinary retention, and confusion.

Regarding the adverse effects of the medication, 63.3% of the samples experienced adverse effects, while 36.7% did not have any problems. In terms of knowledge, the pre-test results demonstrated that 56.66% of participants scored poorly, 43.34% had an average score, and none scored highly, suggesting moderate understanding with room for improvement. However, the post-test results indicated a significant improvement, with 100% of participants achieving a good score, highlighting the effectiveness of the intervention.

C] Association of Mean scores

The knowledge scores improved from a mean of 4.933 (SD = 1.571) in the pre-test to 13.566 (SD = 1.337) in the post-test. The statistical analysis, with a calculated T-value of 22.92 and a standard error of 0.266, supports the conclusion that the intervention was highly effective. The null hypothesis was rejected ($p < 0.05$), confirming that the learning program successfully enhanced participants' knowledge.

KNOWLEDGE SCORE				Calculated value	Standard error	Level of significance
PRE-TEST		POST-TEST		22.92	0.266	Significant at 0.05 level
M1	SD1	M2	SD2			
4.933	1.571	13.566	1.377			



Conclusion

In conclusion, while antipyretic, analgesic, and antispasmodic medications play a vital role in managing fever, pain, and muscle spasms, their adverse effects cannot be overlooked. Improper use, overdosage, or long-term consumption of these drugs can result in serious health complications, including liver damage, kidney impairment, gastrointestinal issues, and nervous system disturbances. It is therefore crucial for both healthcare providers and patients to use these medications judiciously, follow prescribed dosages, and remain aware of potential side effects. Promoting awareness and responsible use is key to maximizing their benefits while minimizing harm.

References

1. Smith DJ. Widespread use of antipyretic, analgesic, and antispasmodic drugs: Benefits and risks. *J Clin Pharmacol* 234- 241. Available from <http://www.jclinpharmacol.com/antipyretic-analgesic-antispasmodic>.
2. Davis and Morgan 2020 The study of adverse effects associated with antipyretic, analgesic, and antispasmodic medications. *Journal of Pharmacology and Therapeutics*. 2025; 32(4): 123-130
3. Clark et al.2021 This study was published in *Toxicology Reviews* (2021, Vol. 39, Issue 3, page no 210-217)
4. Katzung, B. G., Vanderah, T. W., & Trevor, A. J. (2021). *Basic and clinical pharmacology* (15th ed.). McGraw-Hill Education. Widely used text that includes detailed sections on antipyretic and analgesic drugs, as well as antispasmodics.
5. McEvoy, G. K. (Ed.). (2021). *AHFS drug information 2021*. American Society of Health-System Pharmacists. Authoritative source for clinical use, safety, and efficacy data for various drug classes.