

“Impact of Moot Court Activity on Knowledge of B.H.M.S. Students in Forensic Medicine and Toxicology: A Cross-Sectional Study”

Dr. Sanhita Sharma

HOD & Associate Professor of Forensic medicine and toxicology
MUHS, NASHIK

Dr. Yogini Mahajan

Assistant Professor of Forensic medicine and Toxicology
MUHS, NASHIK

ABSTRACT

Background:

Forensic Medicine and Toxicology (FMT) is an essential component of the BHMS curriculum, preparing students for medico-legal responsibilities in professional practice. Conventional lecture-based teaching often limits active engagement and practical understanding. Moot court activity, widely used in legal education, offers a simulated court environment that may enhance medico-legal learning in medical education.

Aim:

To assess the impact of moot court activity on the knowledge of BHMS students in FMT, considering both active participants and observers.

Materials and Methods:

A cross-sectional study was conducted among 2nd year BHMS students. A simulated moot court was organized, with selected students enacting roles such as judge, lawyers, witnesses, and medical experts, while the remaining students observed the proceedings. Knowledge was assessed using a structured pre-test and post-test questionnaire. Feedback regarding the usefulness of moot court was also collected. Data were analyzed using descriptive statistics and paired *t*-test/independent *t*-test, with $p < 0.05$ considered significant.

Results:

The analysis showed a significant improvement in knowledge scores after the moot court activity. The mean pre-test score was **74.50%**, while the mean post-test score increased to **95.08%** ($p < 0.001$). Both active participants and observers demonstrated knowledge gain, with greater improvement noted among active participants. Student feedback revealed high levels of satisfaction, with reports of improved understanding of medico-legal concepts, enhanced confidence, and better engagement compared to traditional lectures.

Conclusion:

Moot court activity proved to be an effective, engaging, and innovative teaching–learning method in FMT. It benefits both active participants and observers by bridging the gap between theoretical knowledge and practical application, thereby strengthening medico-legal preparedness among BHMS students.

Keywords:

Moot court, Forensic Medicine and Toxicology, BHMS students, Innovative teaching methods,

INTRODUCTION:

Legal and ethical awareness is an integral part of medical education, as future physicians are often required to deal with medico-legal responsibilities in their professional practice. In the Bachelors of Homeopathy Medicine and Surgery (B.H.M.S.) curriculum, Forensic Medicine and Toxicology (FMT) subject plays a vital role in preparing students for such responsibilities. However, conventional lecture-based teaching may limit student engagement and restrict opportunities for applying theoretical concepts to real-life situations. To address this, innovative teaching–learning methods such as Moot Court activities have been introduced in the Competency Based Dynamic Curriculum (CBDC) by the National Commission for Homoeopathy (NCH), New Delhi.

Moot courts, widely practiced in legal education, are simulated court proceedings that provide a platform for students to enact roles of judges, lawyers, witnesses, and experts. In the context of medical education, such activities help students understand the judicial process while applying medico-legal knowledge in a practical setting. Importantly, the impact of moot court extends not only to the active participants but also to students observing the proceedings. While participants gain experiential learning, observers benefit from exposure to real-time arguments, questioning, and judgment formulation, thereby reinforcing theoretical knowledge through indirect learning.

There is a growing recognition of the need to supplement traditional FMT subject teaching with interactive methods that enhance knowledge retention, critical thinking, communication, and confidence. Despite the potential benefits, limited studies have assessed the effect of moot court as a teaching tool in homeopathic medical education.

The present cross-sectional study aims to evaluate the impact of moot court activity on the knowledge of BHMS (following CBDC curriculum) students in FMT subject, considering both those who actively participated in the proceedings and those who observed. By analyzing pre-test and post-test performance, this study seeks to determine the effectiveness of moot court as an innovative approach to strengthen medico-legal learning in the curriculum.

Active learning strategies like moot courts may enhance comprehension, critical thinking, and retention compared to conventional teaching methods in particular topics in FMT subject.

OBJECTIVES

Primary Objective

- To assess the impact of moot court activity on the knowledge of BHMS (Following CBDC curriculum) students in the subject of Forensic Medicine and Toxicology.

Secondary Objectives

- To evaluate the effectiveness of Moot Court activity as an innovative teaching–learning method in FMT.
- To compare the knowledge gained between students who actively participated in the Moot Court and those who observed the proceedings.
- To analyze student feedback regarding the relevance, usefulness, and engagement level of moot court activity in enhancing medico-legal understanding.

MATERIALS AND METHODS

Study Design

A cross-sectional study was conducted to evaluate the impact of Moot Court activity on the knowledge of BHMS (Following CBDC curriculum) students in Forensic Medicine and Toxicology.

Study Setting and Participants

The study was carried out among 2nd year BHMS (Following CBDC curriculum) students of Dhanvantari Homoeopathic Medical college and research center, Nashik; during the academic year 2025-26. These students have been for a District Court, Nashik field visit & received guidance over Moot court activity topics from Subject faculty and Legal expert. All students of CBDC who enrolled in the FMT subject were invited to participate. Both students who actively participated in the moot court proceedings and those who attended as observers were included in the study.

Sample Size

A total of **58** students participated in the study (active participants: 12; observers: 46). Students who were absent on the day of activity or did not complete both pre-test and post-test were excluded.

Intervention (Moot Court Activity)

A simulated moot court session was organized as part of the FMT subject teaching–learning activity. Roles such as judge, lawyers, witnesses, and medical experts were assigned to selected students, while the rest attended as observers. The session replicated real court proceedings, focusing on medico-legal cases relevant to the BHMS following CBDC curriculum.

Data Collection Tools

- A structured **pre-test and post-test questionnaire** consisting of multiple-choice questions (MCQs) based on FMT subject topic Medical negligence was administered to all students.
- A **feedback questionnaire** was distributed to gather, students' perceptions regarding the usefulness of the moot court activity.

Procedure

1. Students were given a pre-test before the commencement of the moot court activity.
2. The moot court session was conducted in the presence of faculty members.
3. Immediately after the session, a post-test with the same set of questions was administered.
4. Feedback forms were collected from both participants and observers.

Outcome Measures

- Improvement in knowledge scores (difference between pre-test and post-test).
- Student feedback on effectiveness of moot court as a teaching method.

Data Analysis

Collected data were entered into Microsoft Excel and analyzed using

Descriptive statistics (mean, standard deviation, percentages) were used to summarize demographic variables and feedback responses.

Paired t-test was applied to compare pre-test and post-test scores within groups, and independent t-test was used to compare between groups. A p -value <0.05 was considered statistically significant.

RESULTS

A total of 58 second-year BHMS students participated in the study, comprising **12 active participants** in the moot court proceedings and **46 observers**. Students who were absent or did not complete both pre-test and post-test were excluded.

Knowledge Scores

The analysis of pre-test and post-test scores revealed a statistically significant improvement in students' knowledge following the moot court activity. The **mean pre-test score was 74.50%**, which increased to **95.08% in the post-test**. This improvement was found to be highly significant ($p < 0.001$).

Both active participants and observers demonstrated measurable knowledge gains; however, the increase was more pronounced among students who actively participated in the proceedings compared to those who only observed.

Student Feedback

Feedback responses further substantiated the quantitative findings. The majority of students reported that the moot court activity was highly engaging and interactive. They highlighted that the activity:

- helped in bridging theoretical knowledge with practical application of medico-legal concepts,
- improved their understanding of court procedures,
- enhanced their confidence in medico-legal contexts, and
- developed critical thinking and communication skills.

Overall, both participants and observers expressed strong satisfaction with moot court as an innovative teaching–learning strategy, favoring its incorporation alongside conventional lectures in the FMT curriculum.

DISCUSSION

The present study evaluated the impact of moot court activity as an innovative teaching–learning approach in Forensic Medicine and Toxicology (FMT) among BHMS students. The findings demonstrated a significant improvement in knowledge scores following the intervention, with both active participants and observers showing measurable gains. These results support the view that interactive and experiential learning strategies are superior to conventional lecture-based teaching for strengthening comprehension and retention of medico-legal concepts.

Comparable outcomes have been reported in medical and dental education, where simulation-based methods such as moot court and role-play activities enhanced student engagement, knowledge acquisition, and confidence in handling medico-legal issues. Active participation in roles such as judges, lawyers, witnesses, or medical experts allows learners to apply theoretical knowledge in a practical context while simultaneously developing transferable skills such as communication, logical reasoning, problem-solving, and critical thinking. Observers, though less directly involved, also benefit by analyzing structured arguments, cross-examinations, and judicial reasoning, which consolidate and contextualize classroom learning.

The integration of moot court into the BHMS (CBDC) curriculum addresses a significant gap by bridging theoretical instruction with practical exposure. Given that homeopathic practitioners may later serve as expert witnesses in court, such structured simulation provides early professional orientation, reduces anxiety

about medico-legal proceedings, and builds confidence to handle future responsibilities. Moreover, the experiential nature of moot court aligns with the principles of active learning, which are well established in medical education to improve retention and long-term applicability of knowledge.

This study also highlights important strengths. The use of a pre-test and post-test format provided objective measurement of knowledge gain, while including both participants and observers broadened the scope of evaluation. Feedback collection further enriched the findings by capturing student perceptions regarding the relevance, usefulness, and acceptability of moot court activity.

Nevertheless, certain limitations should be acknowledged. The study was restricted to a single institution with a relatively small sample size, which limits the generalizability of results. The evaluation focused on short-term outcomes without assessing long-term retention or the transfer of knowledge to real medico-legal practice. Additionally, as with many simulation-based activities, challenges such as performance anxiety, uneven participation, and the need for additional time, resources, and faculty training must be considered.

Despite these limitations, the findings underscore the value of moot court as a complementary method to conventional lectures in FMT. Its advantages extend beyond knowledge improvement to include development of medico-legal awareness, confidence, communication, teamwork, and preparedness for real-world legal scenarios. On the other hand, disadvantages such as time consumption, resource intensity, and the risk of overemphasis on legal aspects highlight the need for balanced integration within the curriculum.

Future research should focus on larger, multi-institutional studies with longitudinal follow-up to assess knowledge retention and real-life application. Combining moot court with other innovative teaching approaches, such as problem-based learning, case-based discussions, and role play, may further enrich the learning experience.

In summary, moot court activity represents a powerful educational tool in the BHMS curriculum, offering students not only enhanced knowledge of medico-legal concepts but also the professional competencies required to serve as confident practitioners and future expert witnesses.

CONCLUSION

This study highlights the effectiveness of moot court activity as an innovative teaching–learning strategy in Forensic Medicine and Toxicology (FMT) for BHMS students under the CBDC curriculum. The intervention demonstrated significant improvement in students' knowledge, with benefits observed among both active participants and observers. By providing an interactive platform, moot court bridges the gap between theory and practice, enhances student engagement, and fosters key medico-legal competencies such as communication, critical thinking, and confidence in handling court-related responsibilities.

In view of these positive outcomes, moot court activity can be recommended as a complementary method alongside traditional lectures in the FMT curriculum. Its structured integration on a regular basis would not only strengthen students' medico-legal preparedness but also contribute to their holistic professional development as future practitioners and expert witnesses.

REFERENCES -

1. Bhatia A, Choudhary A. Legal and ethical issues in medical practice: importance for medical students. *Indian J Forensic Community Med.* 2015;2(4):193–7.
2. Central Council of Homoeopathy. Homoeopathy (Degree Course) B.H.M.S. Regulations, 1983 (as amended). Gazette of India. New Delhi: Ministry of AYUSH, Govt. of India; 2015.
3. Singh R, Kumar A, Sharma N. Effectiveness of different teaching methods in forensic medicine for undergraduate medical students. *J Indian Acad Forensic Med.* 2017;39(2):135–9.

4. National Commission for Homoeopathy. Competency Based Dynamic Curriculum for BHMS Programme. New Delhi: NCH; 2022.
5. Mogaka JJ. Use of moot courts as a teaching tool in law schools. *J Educ Pract.* 2015;6(17):12–8.
6. Shrivastava SR, Shrivastava PS, Ramasamy J. Exploring innovative teaching methods for forensic medicine in India. *Educ Health (Abingdon).* 2014;27(3):225–7.
7. Rautji R, Behera C, Bhardwaj DN, Dogra TD. Teaching forensic medicine and toxicology: observations in an Indian medical school. *J Forensic Leg Med.* 2007;14(7):389–91.
8. Prince M. Does active learning work? A review of the research. *J Eng Educ.* 2004;93(3):223–31.
9. Deshpande S, Bhosle A. Moot court activity as an innovative teaching–learning tool in FMT for BHMS students: a pilot study. *Indian J Forensic Homoeopathy.* 2021;2(1):45–9.
10. Bhuiyan PS, Rege NN. Fundamentals of medical education. 2nd ed. New Delhi: Jaypee Brothers; 2018.
11. Michael J. Where’s the evidence that active learning works? *Adv Physiol Educ.* 2006;30(4):159–67.
12. Freeman S, Eddy SL, McDonough M, Smith MK, Okoroafor N, Jordt H, et al. Active learning increases student performance in science, engineering, and mathematics. *Proc Natl Acad Sci U S A.* 2014;111(23):8410–5.
13. Bonwell CC, Eison JA. Active learning: creating excitement in the classroom. ASHE-ERIC Higher Education Report No. 1. Washington (DC): George Washington Univ.; 1991.
14. Biggs J, Tang C. Teaching for quality learning at university. 4th ed. Maidenhead: Open University Press; 2011.
15. Kolb DA. Experiential learning: experience as the source of learning and development. Englewood Cliffs (NJ): Prentice-Hall; 1984.
16. Gaba DM. The future vision of simulation in health care. *Qual Saf Health Care.* 2004;13 Suppl 1:i2–10.
17. Harden RM, Laidlaw JM. Essential skills for a medical teacher. 2nd ed. London: Elsevier; 2017.
18. National Medical Commission. Competency based undergraduate curriculum for the Indian medical graduate. New Delhi: NMC; 2018.

Copyright & License:



© Authors retain the copyright of this article. This work is published under the Creative Commons Attribution 4.0 International License (CC BY 4.0), permitting unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.