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RESEARCH ARTICLE

The Impact of Teaching Medical Law through Small Group Teaching for Early Clinical Preparedness Among 3rd Professional Part-II MBBS Students

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Abstract: ***Background:*** Medical law forms a critical component of professional competence, equipping future physicians to manage medico-legal responsibilities with confidence and accountability. Traditionally, this subject has been taught through didactic lectures, which may limit student engagement and hinder clinical preparedness. Small Group Teaching (SGT) provides an interactive, learner-centered approach that can enhance understanding and application of medico-legal concepts. ***Methods:*** A prospective, interventional study was conducted among 146 MBBS students at Gouridevi Institute of Medical Sciences, Durgapur. Participants were divided into 10 groups and underwent 10 structured SGT sessions covering key medico-legal topics including informed consent, medico-legal documentation, issuance of certificates, medico-legal responsibilities under POCSO, MTP Act, THOTA, and indemnity provisions. Pre- and post-intervention assessments were carried out using a 20-item multiple-choice questionnaire and open-ended questions. Feedback was collected to evaluate student perceptions. Data were analyzed using descriptive statistics, Chi-square tests, and paired t-tests. ***Results:*** Statistically significant improvements were observed in 17 out of 20 test items ($p < 0.0001$), with correct responses rising markedly for informed consent (29.5% to 83.6%), SAFE kit components (17.8% to 81.5%), and MTP Act provisions (9.6% to 78.8%). Feedback analysis revealed high satisfaction, with over 90% of students strongly agreeing that SGT enhanced their knowledge, interest, and confidence in handling medico-legal cases. Qualitative responses highlighted professional growth, improved ethical awareness, and the need for further practical exposure. ***Conclusion:*** Teaching medical law through SGT significantly improves knowledge acquisition, clinical preparedness, and professional development in MBBS students. The overwhelmingly positive feedback underscores its potential for integration into the medical curriculum. Longitudinal studies with real-case exposures are recommended to consolidate these gains and enhance medico-legal competency.

Keywords: Medical law, Small group teaching, Clinical preparedness, Medico-legal education, MBBS curriculum, Student feedback.

INTRODUCTION

Medical law is crucial to training future healthcare providers for the many medico-legal issues that may arise during patient care. Physicians routinely comply with the Protection of Children from Sexual Offences (POCSO) Act, the Medical Termination of Pregnancy (MTP) Act, and the Transplantation of Human Organs and Tissues Act (THOTA), as well as patient consent and medico-legal case documentation. Lack of awareness with these legal frameworks puts medical personnel at danger of professional responsibility issues, lawsuits, and patient injury. To ensure that future doctors are competent and ethically qualified for clinical practice, undergraduates must learn medico-legal basics. Despite its importance, many MBBS schools neglect medical legal education. Medical law is traditionally taught in long, dull lectures that focus more on facts and figures than on application. Traditional classroom methods may not prepare students for the complicated medico-legal concerns they will confront in clinical rotations or the amount of engagement and participation they will experience in coursework (Annas, 1990). Surveys of future doctors suggest that many are unprepared for professional indemnity, recordkeeping, and legal responsibilities. This emphasises the need for greater practical medical education. Students must learn medico-legal topics in pre-clinical and early clinical years to provide ethical and legal care. Before facing difficult clinical situations, instilling these principles in pupils enhances their self-confidence and medico-legal skills. Small group teaching (SGT) fills these educational gaps. SGT's student-centered, interactive approach promotes critical thinking, active learning, and peer discussion. SGT students explore ethical issues, apply legal concepts to hypothetical clinical situations, and work on case studies instead than passively listening to lectures. This strategy improves medical practitioners' capacity to learn and remember new knowledge, communicate properly, and make good professional decisions (McLean et al., 1997). Through role-playing, case discussions, and practical activities, SGT helps

students apply classroom theory to real-world application.

The Indian National Medical Commission (NMC) recently made revisions emphasising SGT in medical education. The NMC's competency-based medical education includes medico-legal and ethical electives. SGT for medical law aligns with these curricular improvements by providing structured learning about informed consent, professional indemnity, case documenting, certificate issuing, and reporting standards . SGT increases the possibility that students will gain the knowledge, self-confidence, and competence needed for early clinical preparation, supporting NMC's goal of producing ethically conscious and legally literate medical graduates. SGT is useful, but there is no data on how well it teaches first-year medical students medical law. Lecture-based methods have been studied for their effects on students' knowledge, clinical preparation, and satisfaction, while interactive, case-based methods have not. To fill that gap, this study examines how SGT improves third-year MBBS students' medico-legal competence. We need to know how effective this strategy is to improve medical school curricula, teach medico-legal ideas early on, and develop doctors who can handle today's healthcare system's ethical and legal issues. SGT integration in medical legal courses may address gaps in conventional education, increase student involvement, and better prepare students for clinical rotations early on. SGT provides interactive, practical, and student-centered learning experiences to help MBBS students transition from theoretical knowledge to clinical application in a safe, responsible, and professional manner.

Objectives

- **Primary Objective:** Evaluate the role of SGT in teaching medical law
- **Secondary Objectives:**
- Assess students' clinical preparedness in medico-legal scenarios
- Identify areas for improvement in medical law education

2. Review of Literature

Numerous studies have proved the importance of teaching future doctors the law and ethical reasoning, supporting medical law education's longstanding importance in medical school. Annas (1990) stressed that doctors must know medico-legal principles to treat clinical issues. Since medical law education is under-represented despite its relevance, legal and ethical training is needed. (McLean and Maher's, 1997) supplementary research of teaching tactics found that structured and participatory methods like problem-based learning and case discussions increased student understanding more than lectures. They did remark that analysing creative teaching approaches, particularly legal knowledge retention, is still lacking. In their survey of medical students, (Preston-Shoot and McKimm, 2013) found that many lacked fundamental legal understanding, specifically about medico-legal paperwork, professional indemnity, and consent. Their findings showed that early medical training should include legal knowledge to prepare for clinical practice. Equally, (Scott and Sazama, 2001) noted that formal legal education improves ethical thinking. They noted that the lack of real-world medico-legal competency studies is a major limitation of current research. In 2006, Jha et al. proposed an interdisciplinary approach to combine medical ethics and law into clinical training. Early medico-legal education could improve knowledge retention and application, they said.

(Yeo and Moorhouse, 2014) and (Pattison and Wainwright, 2010) examined evidence-based medical law instruction and its efficacy. Both studies found that medico-legal tasks were taught inconsistently and that many students felt unprepared. Yeo and Moorhouse argued that case-based, interactive training improved practical understanding and long-term retention to support Small Group Teaching (SGT) as the optimal method. Legal education in medical curricula affects professional accountability, as (Baker and McCullough, 2005) noted. Knowing medico-legal principles improves patient safety and reduces clinical errors. Interdisciplinary lesson plan creation and assessment have also been studied. Stolberg and Norman's (2002) medical law curriculum improved students' skills. Dickenson (2004) found that combined teaching frameworks improved decision-making, emphasising the significance of ethics and law in practical training. Savulescu (2003) found that narrowing the gap between academic legal understanding and practical application improved clinical outcomes. Hope's(2007) research on medical law and professional identity found that legal literacy promotes accountability, ethics, and professionalism. Systematic reviews and meta-analyses support early and interactive exposure. (Kuper and D'Eon, 2011) discovered that pre-clinical students who were exposed to medico-legal concepts early on retained more and were more comfortable with legal tasks throughout clinical rotations. Gillespie (2009) suggested that innovative teaching methods could address student disengagement and faculty shortages. (Montserrat and Braddock, 2012) found that real-world cases improved students' legal application, underscoring the importance of experiential learning and case-based education.

According to research, early, interactive, and structured medical legal exposure improves knowledge acquisition, retention, and clinical preparation. Despite these outcomes, gaps remain. Most research on pedagogy has focused on lectures or modules, not small group teaching (SGT). Another difficulty is inconsistent multidisciplinary integration of ethics, regulation, and clinical practice, and there is little long-term research on professional competency and patient safety. Although highly recommended, case-based learning and

role-play activities are rarely implemented or graded in Indian medical curriculum. Summarising the literature, medical legal education is essential, early and interactive exposure may be advantageous, and multidisciplinary and practical teaching techniques are valuable. SGT's systematic use and evaluation in medico-legal education lacks research. This study will evaluate SGT's preparation of third-year medical students for clinical rotations by measuring their knowledge, confidence, and early clinical preparedness. The findings will inform curriculum and instruction.

MATERIAL AND METHODS

Study Design and Setting

This prospective interventional study at the Gouri Devi Institute of Medical Sciences, Durgapur, examined how Small Group Teaching (SGT) affects medical law knowledge and early clinical readiness in 3rd Professional Part-II MBBS students. The study measured knowledge growth and practical preparation before and after the intervention. The Institutional Review Board (IRB) approved the research before it began to ensure ethical conduct. Student participants signed an informed consent form after obtaining thorough information about the study's goals, methodology, and ability to withdraw without penalty. All student responses were kept personal and anonymous by the study.

Study Population

One hundred fifty qualified third-year medical students from Gouri Devi Institute of Medical Sciences were studied. Four students missed SGT sessions, but 146 completed the study. Participation in the study requires willingness and enrolment in the Third Professional Part-II MBBS program. We eliminated children who skipped sessions or didn't give consent to ensure everyone received the same assistance. SGT was tested in this group with an equal number of male and female students aged 22–24.

Intervention

The intervention included ten Small Group Teaching sessions led by medical ethics and legal faculty. We divided the class into 10 15-student groups to ensure interest and individual attention. Informed consent and refusal, medico-legal documentation and formats, fitness, death, injury, and drunkenness certificates, sexual assault evidence handling, professional indemnity and the Consumer Protection Act (COPRA), POCSO legal obligations, the Medical Termination of Pregnancy (MTP) Act and its 2021 amendments, THOTA brain death certification, infectious disease reporting protocols, and medical record maintenance were among the topics covered. Each session includes short lectures, case-based discussions, and role-playing to simulate real-world problems. This multi-modal teaching method aimed to engage, educate, and give students medico-legal experience.

Data Collection Tools

Data collection was performed using two primary instruments. Knowledge assessment was conducted using a validated, structured multiple-choice questionnaire (MCQ) consisting of twenty questions covering all key topics addressed in the SGT sessions. This questionnaire was administered both before the first session (pre-test) and after the final session (post-test) to measure improvement in knowledge. In addition, structured feedback forms were employed to capture qualitative insights from students regarding the effectiveness, clarity, and relevance of the sessions. The feedback focused on student perceptions of confidence, preparedness, and preference for SGT over traditional lectures. This dual approach enabled the evaluation of both objective knowledge gains and subjective student experiences.

Outcome Measures

The primary outcome measure was the improvement in knowledge scores, determined by comparing pre-test and post-test results. Secondary outcome measures included self-reported preparedness for handling medico-legal responsibilities during clinical practice and student feedback on the acceptability and effectiveness of SGT as a teaching strategy. These outcomes allowed for a comprehensive assessment of both cognitive and practical benefits of the intervention.

Statistical Analysis

All data were analyzed using SPSS software. Descriptive statistics were used to summarize demographic information and overall performance trends. Paired t-tests were applied to compare pre- and post-test scores, and chi-square tests were used for categorical variables. A p-value of less than 0.05 was considered statistically significant. Qualitative feedback was analyzed thematically to identify recurring patterns, perceptions, and suggestions for improvement in future SGT sessions. The combination of quantitative and qualitative analyses provided a robust evaluation of the impact of SGT on student knowledge, preparedness, and satisfaction.

RESULTS AND OBSERVATIONS:

Demographic Profile of Participants

A total of 146 students from 3rd Professional Part-II MBBS participated in the study. The age distribution showed that the majority (77.4%) were between 23–24 years, while 22.6% were between 25–29 years. The mean age was 23.8 years. Regarding gender, 84 students (57.5%) were male, and 62 (42.5%) were female.

Table 1: Distribution of Age

Age (Years)	Frequency	Percent
23	45	30.6
24	68	46.8
25	12	8.2
26	21	14.4
Total	**146**	**100**

Table 2: Distribution of Sex

Sex	Frequency	Percent
Male	84	57.5
Female	62	42.5
Total	**146**	**100**

Knowledge Assessment: Pre- vs. Post-Test Comparison

All 146 students were assessed using a 20-item structured questionnaire. The analysis showed statistically significant improvement ($p < 0.0001$ in most cases) in knowledge across nearly all domains of medical law after the SGT sessions.

Key findings per item (examples):

- **Q1 (Consent in medicolegal cases):** Correct responses increased from **29.5% to 83.6%** ($p < 0.0001$).
- **Q2 (Components of informed consent):** Increased from **17.8% to 65.1%** ($p < 0.0001$).
- **Q4 (SAFE kit components):** Increased from **17.8% to 81.5%** ($p < 0.0001$).
- **Q10 (MCCD issuance):** Increased from **35.6% to 80.8%** ($p < 0.0001$).
- **Q20 (MTP Act 2021 upper limit):** Increased from **9.6% to 78.8%** ($p < 0.0001$).

Notably, a few areas such as **informed refusal (Q3)** and **brain death certification under THOTA (Q17)** showed improvements, but the differences were not statistically significant.

Table 3: Selected Examples of Pre- and Post-Test Results

Question	Correct Response (%) Pre-Test	Correct Response (%) Post-Test	p-value
Q1. Consent in medicolegal cases	29.5	83.6	<0.0001
Q2. Components of informed consent	17.8	65.1	<0.0001
Q4. SAFE kit components	17.8	81.5	<0.0001
Q6. POCSO case condition	19.9	80.8	<0.0001
Q10. MCCD issuance exception	35.6	80.8	<0.0001
Q13. Valid dying declaration recorder	8.9	86.3	<0.0001
Q16. COPRA full form	34.2	80.8	<0.0001
Q20. MTP Act 2021 limit	9.6	78.8	<0.0001

Overall, **17 out of 20 questions showed statistically significant improvements** ($p < 0.0001$), confirming the positive impact of SGT.

Improvements in Clinical Preparedness

Students reported increased readiness to handle medicolegal responsibilities in the clinical setting. After SGT sessions:

- A higher proportion demonstrated confidence in **issuing medico-legal certificates** (injury, death, and fitness).
- Awareness of **legal obligations in POCSO and sexual assault cases** improved dramatically.
- Students gained clarity on **documentation protocols, infectious disease reporting, and indemnity coverage**.
- Some areas (informed refusal, brain death certification) still required reinforcement, indicating scope for curriculum refinement.

Student Feedback Analysis

Satisfaction with Teaching and Materials

Feedback revealed very high satisfaction with the SGT method:

- **89% strongly agreed** that class materials were useful and accurate.
- **94.5% strongly agreed** that the class description matched the content.
- **93.2% strongly agreed** that technology used was appropriate.
- **89.7% strongly agreed** that exams were based on lecture/assignments.

Table 4: Summary of Student Feedback on Course Delivery

Feedback Item	Strongly Agree (%)	Agree (%)
Materials useful & accurate	89	11
Class description accurate	94.5	5.5
Technology appropriate	93.2	6.8
Exams based on lectures	89.7	10.3
Instructor qualified	92.5	7.5
Class size appropriate	89.7	10.3
Increased knowledge	91.8	8.2
Increased interest	91.8	8.2

Perceived Professional Development

When asked how the course helped them professionally:

- **37%** reported gaining a new vision for approaching patients.
- **34.9%** felt more legally confident in communication with patients and relatives.
- **18.5%** highlighted the need to practice implementation during internship.
- **9.6%** saw it as opening a new path for continuous upgradation.

Changes in Attitude and Behavior

Students noted they would:

- Treat patients more **ethically and empathetically** (42.5%).
- Explain conditions and understand patient views better (23.3%).
- Improve medical record preservation (8.9%).
- Examine vulnerable patients more confidently (25.3%).

Recommendations for Improvement

Students also suggested ways to enhance the course:

- **43.2%** felt the course was already adequate.
- **23.3%** requested more classes on selected topics.
- **17.8%** suggested adding more medico-legal topics.
- **19.2%** recommended hospital visits for practical relatability.
- **8.9%** wanted more role-plays and group discussions.

Table 5: Suggestions for Course Modification

Suggested Modification	Frequency	Percent
More classes needed on few topics	34	23.3
Course already sufficient	63	43.2
Add more important topics	26	17.8
Extend to 3rd-year students	16	11.0
Hospital visits for practical relatability	28	19.2
More group discussions, role plays	13	8.9

DISCUSSION

This study examined how Small Group Teaching (SGT) of medical law affects pre-clinical preparation in third-year MBBS students. Most areas demonstrated a statistically significant improvement in medico-legal understanding and use. Informed consent, medico-legal paperwork, sexual assault management, medical certifications, POCSO and MTP Act duties, and indemnification provisions improved significantly post-test. This improvement shows that SGT is effective as a learner-centred teaching style that encourages critical engagement, active participation, and contextual understanding of medico-legal standards.

Prior studies has indicated that medical students need systematic medico-legal training. (Preston-Shoot and McKimm, 2013) revealed significant legal literacy gaps in medical students, which our pre-test results confirm. Similarly, Jha et al. (2006) advocated for a medico-legal curriculum that integrated clinical and legal knowledge. The significant advances in our study's post-test suggest that interactive small-group strategies improve knowledge and connect classroom learning to clinical

application. Our findings support Savulescu (2003)'s emphasis on mixing theoretical and practical knowledge, showing that role plays, case simulations, and hands-on talks provide lasting learning experiences.

This study has substantial implications for how SGT prepares students for their first clinical assignments. Certification, consent, and medico-legal reporting complicate the ever-changing medico-legal landscape, as do sexual assault and abortion laws. SGT prepares students to face ethical and legal issues by introducing these concepts early. Kuper and D'Eon (2011) revealed that early medico-legal education enhances workplace retention and responsibility. In this study, students improved their factual knowledge and qualitative abilities including empathy, ethical awareness, and confidence in working with vulnerable patients.

The study's qualities support its findings. The prospective, interventional method allowed strong baseline-post-intervention comparisons. The 146-student sample has enough statistical power to identify significant differences. This interactive course covered all medico-legal topics in 10 sessions by integrating academic knowledge with practical activities and case-based learning. Feedback analysis documented student perceptions and professional development, adding qualitative value to quantitative data.

Such limits can't be ignored. Due to its single-center design, the results may not apply to other medical schools with different curricula and funding. We were unable to establish whether participants retained medical-legal information or used it in clinical settings due to the study's short duration. The intervention had relatively minor effects on informed refusal knowledge and THOTA Act brain death certification. This shows that some medico-legal topics may require more education or hands-on examples to obtain proficiency levels.

Major implications for medical education. The findings strongly supports including SGT in MBBS medical legal curriculum. Thus, students who understand both theory and practice of their subject would be more equipped for clinical rotations. Policymakers and curriculum architects in medico-legal education should consider replacing lecture-based models with interactive, case-based, and experiential ones. If medico-legal training and assessment were standardised across institutions, Pattison and Wainwright (2010) suggested that graduates nationwide would be proficient.

The results suggest that SGT transforms medical students' medico-legal and clinical preparation. There are still challenges, but the data strongly supports curricular change in this crucial medical school area.

CONCLUSION

Small Group Teaching (SGT) improved third-year medical students' understanding and readiness to practise medical law, according to this study. Both pre- and post-tests showed significant improvements in informed consent, medico-legal paperwork, case handling, and POCSO, MTP, and THOTA compliance. Students' glowing opinions of SGT's effects on self-esteem, job progress, and ethics support its value.

The results suggest that SGT engages students and helps them apply classroom theory to real-world practice better than lectures. All students wanted the course enlarged, with many suggesting hospital field excursions, role plays and case studies to increase its practicality.

The study suggests using SGT to teach undergraduates clinical readiness and medico-legal literacy. But we need additional long-term study to assess how well students retain what they learn, how well they implement what they learn during internships, and how well real-world settings help students grow their skills over time.

7. Recommendations

The study's findings propose several medical education and curriculum development ideas. Start by including Small Group Teaching (SGT) in medical law curricula for all MBBS schools. This strategy encourages active involvement, peer learning, and better recall than lecture. Second, hospital displays, medico-legal case simulations, mock trials, and role-playing activities give students real-world experience and bridge the classroom-real-world gap. If they used these methods, students may apply their knowledge in clinical settings.

Third, medical schools must standardise medico-legal instruction and evaluation. National Medical Commission should assist establish a standard national module to ensure all students learn the same. Fourth, extra class time, expert lectures, and practical demonstrations should be used to improve areas like informed refusal and brain death certification that showed little development. Finally, longitudinal follow-up studies are needed to determine how SGT affects patient safety and medico-legal competence over time. These proposals can help medical schools improve healthcare quality and accountability by graduating students with legal and ethical understanding as well as clinical skills.

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