Medico-Legal Knowledge, Ethical Attitudes and Responses to Clinical-Ethical Scenarios Among Senior Medical Students in Sarawak, Malaysia: A Cross-Sectional Study

Lim Siong Hee[1*], Lau Bik Liang[1,3], Low Yong Lee[1], Dayang Suhana Abg Madzhi[2], Sia Chin Chin[4], Kueh Tze Siew[1]

[1]Department of Community Medicine and Public Health, Faculty of Medicine and Health Sciences, Universiti Malaysia Sarawak. Datuk Mohammad Musa Road, 94300, Kota Samarahan, Sarawak. Malaysia

[2]Department of Otolaryngology Head and Neck Surgery, Faculty of Medicine and Health Sciences, Universiti Malaysia Sarawak. Datuk Mohammad Musa Road, 94300, Kota Samarahan, Sarawak, Malaysia

[3]Kuching Specialist Hospital, Lot 18807, Block 11 Muara Tebas Land District, Jalan Stutong, 93350 Kuching, Sarawak, Malaysia

[4]Faculty of Business & Law, Jalan Taylor's, 47500 Subang Jaya, Selangor, Malaysia

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ABSTRACT

Background: Medico-legal knowledge and ethical attitudes may inform students' responses to clinical-ethical dilemmas, but questionnaire responses cannot establish clinical competence. This study described these domains among senior medical students at University Malaysia Sarawak (UNIMAS) and explored associations between educational exposure and knowledge.

Methods: In May–June 2026, all 275 Year 4 and Year 5 students were invited to a cross-sectional survey; 255 responded (92.7%). A questionnaire adopted and adapted from previous Malaysian research assessed medico-legal knowledge, ethical attitudes and responses to seven hypothetical clinical-ethical scenarios. An exploratory 24-item knowledge index (one point per response judged correct; zero for incorrect, unsure or non-standard multiple responses; range 0–24) excluded two context-dependent statements. It was not a validated clinical-competency scale. Descriptive analyses and exploratory Mann–Whitney U and chi-square tests were performed.

Results: Most respondents agreed that understanding medical law improves healthcare quality (92.5%), but only 35.0% felt confident explaining patient rights and 32.9% reported knowing where to seek help for an ethical dilemma. The exploratory knowledge-index mean was 12.47/24 (SD 4.06). Higher scores were observed among students reporting formal teaching (13.18 versus 10.10; $p<0.001$) and prior medico-legal case exposure (14.32 versus 11.94; $p<0.001$). Hypothetical responses revealed uncertainty about treatment refusal and emergency consent; awareness of ethical referral pathways was limited.

Conclusions: Positive ethical attitudes were not consistently accompanied by self-reported confidence or scenario responses reflecting clear ethical decision-making. Findings identify priorities for case-based teaching, patient-rights communication and accessible referral guidance, but neither establish actual clinical behaviour or ethical competence nor demonstrate a causal benefit of formal teaching.

Keywords: medical ethics; medical law; ethical decision-making; patient autonomy; informed consent; confidentiality; medical students; empirical ethics; Malaysia

BACKGROUND

Medico-legal knowledge concerns awareness of legal duties, professional standards and patients' rights, whereas ethical attitudes describe the importance students assign to values such as autonomy, confidentiality and accountability. Ethical reasoning is the process of identifying competing obligations and justifying a course of action in context. Practical ethical decision-making additionally involves communication, judgement and action in real clinical settings. These constructs are related but not interchangeable: endorsement of a principle or selection of a questionnaire option does not demonstrate its enactment during patient care [1–3].

Senior clinical students are a particularly relevant population because they encounter consent, disclosure, treatment refusal and professional accountability during patient-facing placements while still practising under supervision. Hypothetical scenarios may reveal areas of uncertainty as students approach graduation, although such responses are not direct observations of ethical reasoning processes or clinical decisions [4–7].

In Malaysia, medico-legal obligations arise from legislation, Malaysian Medical Council guidance and case law, including developments in informed consent [8–10]. Medical law sets enforceable obligations, while ethical judgement may require balancing values beyond minimum legal requirements.

Ministry of Health reporting also documents medico-legal complaints and litigation [11], underscoring the relevance of clear communication and professional accountability.

Previous Malaysian research has described institutional barriers to bioethics education, students' perceptions of integrating medical law into curricula, and professionalism-related attitudes or conduct [13–15]. However, evidence remains limited on the combined patterns of legal knowledge, ethical attitudes, confidence concerning patient rights and answers to hypothetical clinical-ethical situations specifically among senior clinical students. This study addresses that narrower, descriptive gap at one Malaysian institution rather than claiming national representativeness.

Conceptual Framework

The study used a conceptual framework in which medico-legal knowledge and ethical attitudes are distinct, potentially complementary inputs to ethical reasoning and responses to clinical-ethical situations. Prior teaching, case exposure and clinical context may be associated with these domains. Scenario selections are observable questionnaire outcomes, not validated proxies for reasoning quality or actual practice. The cross-sectional design does not test the direction of these relationships.

Accordingly, this study aimed to (1) describe medico-legal knowledge, ethical attitudes and responses to selected hypothetical clinical-ethical scenarios among Year 4 and Year 5 UNIMAS medical students; (2) identify discrepancies between endorsement of ethical principles, self-reported confidence and selected scenario responses; and (3) explore associations of academic year, gender, formal teaching and prior case exposure with an exploratory knowledge index. No inference about actual clinical competence or behaviour was intended.

Accordingly, this study aimed to: (1) describe medico-legal knowledge, ethical attitudes and responses to selected clinical-ethical scenarios among Year 4 and Year 5 medical students at UNIMAS; (2) examine the extent to which strong endorsement of ethical and medico-legal principles was accompanied by confidence and consistent application in scenario-based questions; and (3) explore whether academic year, gender, previous formal teaching and previous exposure to medico-legal cases were associated with an exploratory core knowledge index.

The study was intended to provide an empirical account of the relationship between ethical awareness, medico-legal knowledge and applied responses rather than to classify students as ethically competent or incompetent.

METHODS

Study Design and Setting

A cross-sectional questionnaire study was conducted at the Faculty of Medicine and Health Sciences, University Malaysia Sarawak (UNIMAS), Sarawak, Malaysia, from May to June 2026. UNIMAS delivers a five-year undergraduate medical programme. Years 4 and 5 represent senior clinical training and were selected because students have substantial patient-facing exposure while remaining within the undergraduate curriculum.

Study Population, Sampling, and Response Rate

Universal sampling was used. All Year 4 students (30 male, 85 females; n=115) and all Year 5 students (48 male, 112 female; n=160) enrolled during the study period were invited, giving an eligible population of 275. The analysed dataset contained 255 completed responses: all 115 Year 4 students and 140 Year 5 students, corresponding to an overall response rate of 92.7%. The response rate was 100% for Year 4 and 87.5% for Year 5.

Questionnaire and Ethical Domains

The questionnaire was adopted and adapted from earlier Malaysian work on medical-law education, particularly Lee, Arumugam and Sim [15], and contextualised to Malaysian medico-legal practice. It included demographic and educational-exposure items, 26 knowledge statements, ethical-attitude questions and seven hypothetical clinical-ethical situations: falsified records, treatment refusal, emergency consent, media disclosure, suspected negligence, medication error and seeking ethical guidance. Adaptation does not imply that this revised instrument underwent full content or construct validation. Scenario selections were analysed as self-reported answers, not direct measures of clinical behaviour or validated ethical competence.

For item-level reporting, the original knowledge statements were retained. For exploratory group comparisons, the research team constructed a post hoc 24-item index from statements considered sufficiently unambiguous to support binary scoring against Malaysian law, professional guidance or established principles. Two context-sensitive statements, indirect advisory liability and broad application of the Personal Data Protection Act 2010 were excluded. Each designated correct answer was scored 1; incorrect, unsure and non-standard multiple answers were scored 0 (possible range 0–24). The index was not externally validated, weighted or linked to a competency threshold; its Cronbach alpha of 0.79 indicates internal consistency in this sample, not validity or clinical competence.

Attitudinal items using five-point Likert responses were summarized as mean (SD) and as agree/strongly agree versus neutral versus disagree/strongly disagree. Categorical attitudinal questions and scenario-based responses were summarised as frequencies and percentages. The internal consistency of the exploratory 24-item knowledge index was acceptable (Cronbach's alpha=0.79), while the 10 numeric attitude items demonstrated high internal consistency (Cronbach's alpha=0.89).

Statistical Analysis

Data were analysed using descriptive and exploratory inferential statistics. Categorical variables are presented as frequencies and percentages. Because the knowledge index was a bounded count score and normality was not assumed, two-group comparisons were performed using the Mann-Whitney U test. Associations between categorical variables were examined using chi-square tests.

All tests were two-sided and $p<0.05$ was used as an exploratory significance threshold. Missing values were excluded pairwise and no imputation was performed. Given the observational cross-sectional design and multiple exploratory comparisons, p values are interpreted as evidence of association rather than causation or confirmatory hypothesis testing.

Ethics

Ethical approval was obtained from the University Malaysia Sarawak ethics committee before data collection (reference number: UNIMAS/TNC(PI)/09 – 65/01 Jld.5 (92)). Participation was voluntary. Students received information about the purpose of the study and consented to participate before completing the questionnaire. Data were analysed in de-identified form and were used solely for research and curriculum-evaluation purposes. The study was conducted in accordance with the Declaration of Helsinki.

RESULTS

Participant Characteristics and Prior Exposure

Of 275 eligible senior clinical students, 255 completed the survey (92.7%). The sample comprised 115 Year 4 students (45.1%) and 140 Year 5 students (54.9%). Females constituted 72.5% of respondents. Age was available for 252 students and was strongly concentrated between 23 and 25 years. Most respondents (76.9%) reported previous formal teaching in medical law or ethics; lectures/classes were the dominant modality. Only 22.0% reported prior exposure to legal cases related to medical practice.

Participant characteristics are shown in Table 1.

Table 1. Participant characteristics and prior medico-legal exposure.

Characteristic	Overall n (%)	Year 4 n (%)	Year 5 n (%)
Academic year	255 (100)	115 (45.1)	140 (54.9)
Female	185 (72.5)	85 (73.9)	100 (71.4)
Male	70 (27.5)	30 (26.1)	40 (28.6)
Formal teaching in medical law/ethics: Yes	196 (76.9)	96 (83.5)	100 (71.4)
Formal teaching: No	59 (23.1)	19 (16.5)	40 (28.6)
Prior exposure to legal cases: Yes	56 (22.0)	24 (20.9)	32 (22.9)
Prior exposure to legal cases: No	199 (78.0)	91 (79.1)	108 (77.1)

Medico-legal knowledge relevant to ethical practice

Across the 24-item exploratory core knowledge index, the mean was 12.47 (SD 4.06) and the median was 13. These values are presented descriptively and should not be interpreted against a competency threshold. Item-level responses showed comparatively high proportions of correct answers for practising without a valid certificate, potential institutional and individual liability, registration requirements, the Mental Health Act and euthanasia. Lower proportions of correct responses were observed for several questions concerning risk disclosure, control of medical information, record retention, statutory notification, emergency consent, electronic consent and identification of statutory frameworks. Because several of these topics are legally or contextually nuanced, the item-level pattern is interpreted as identifying areas of uncertainty that warrant educational attention rather than as proof of incompetence.

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Table 2 summarizes the legal-knowledge responses.

Table 2. Selected legal-knowledge responses. Percentages use n=255 as denominator; non-standard multiple responses were treated as not correct for the exploratory score.

Knowledge statement (abbreviated)	Correct response	Correct n	Correct %
Medical practitioners must be registered under the Medical Act 1971	True	202	79.2
Doctor may prescribe without valid practising certificate	False	237	92.9
Another doctor who is not performing procedure may obtain consent	False	141	55.3
Mental Health Act permits involuntary admission under specified criteria	True	211	82.7
Advertising oneself as the 'best' doctor is permissible	False	158	62.0
Informed consent requires disclosure of all possible consequences regardless of materiality	False	4	1.6
All medical information solely belongs to the hospital	False	62	24.3
Private Healthcare Facilities and Services Act regulate private facilities	True	168	65.9
Negligence requires breach, damage and causation	True	206	80.8
Consent by a competent 17-year-old is automatically legally valid solely because of understanding	False	166	65.1
Patient information may be disclosed to media with valid patient consent	True	66	25.9
Hospital and doctor may both be liable in malpractice	True	229	89.8
Medical (Amendment) Act 2012 introduced fitness-to-practise mechanisms	True	110	43.1
Emergency life-saving treatment can proceed without consent when valid consent cannot be obtained	True	128	50.2
Medical records need only be retained for at least five years after last visit	False	35	13.7
All suspected communicable diseases must be notified	False	32	12.5
Act 852 prohibits sale of smoking products to minors	True	206	80.8
Practising without valid APC is an offence	True	209	82.0
Euthanasia may be performed with patient consent in Malaysia	False	149	58.4

A general 'Public Health Act 2024' empowers inspections of risky premises	False	6	2.4
Electronic Commerce Act 2006 by itself establishes legal validity of clinical e-consent	False	15	5.9
Patient may sue a doctor for negligence under civil law	True	173	67.8
Medical Regulations 2017 govern CPD/APC-related compliance	True	99	38.8

Factors associated with legal knowledge

Students reporting previous formal teaching had higher exploratory index scores than those reporting no formal teaching (mean 13.18 vs 10.10; Mann-Whitney $p<0.001$) (Table 3). Students reporting previous exposure to legal cases also had higher scores (14.32 vs 11.94; $p<0.001$). Index scores did not differ significantly by academic year (Year 4 mean 12.63 vs Year 5 mean 12.34; $p=0.127$) or gender (female mean 12.57 vs male mean 12.20; $p=0.294$). Formal teaching was reported more frequently by Year 4 than Year 5 respondents (83.5% vs 71.4%; chi-square $p=0.034$). These comparisons are exploratory and do not demonstrate an effect of teaching or case exposure.

Table 3. Exploratory comparison of the core knowledge index.

Factor	Group	n	Mean exploratory knowledge index (SD)	p value
Academic year	Year 4	115	12.63 (4.50)	0.127
	Year 5	140	12.34 (3.68)	
Gender	Female	185	12.57 (3.50)	0.294
	Male	70	12.20 (5.29)	
Formal teaching	Yes	196	13.18 (3.06)	**<0.001**
	No	59	10.10 (5.78)	
Prior legal-case exposure	Yes	56	14.32 (2.38)	**<0.001**
	No	199	11.94 (4.29)	

Ethical attitudes, patient rights and professional responsibility

Attitudes were strongly supportive of medico-legal education. More than nine in ten students agreed that understanding medical law improves healthcare quality and that early teaching of law and ethics increases professionalism (Table 4). A large majority supported compulsory legal knowledge, reinforcement during clinical years and continuous medico-legal education. In contrast, confidence in explaining patient rights was substantially lower: only 35.0% agreed/strongly agreed, while 53.1% were neutral. Regarding current UNIMAS training, 103 students (40.4%) considered it inadequate, 104 (40.8%) were unsure and only 46 (18.0%) considered it adequate. Moreover, 140 (54.9%) endorsed the statement that doctors should practise defensive medicine to avoid legal consequences, 90 (35.3%) were unsure and only 23 (9.0%) rejected it, suggesting conceptual confusion between prudent risk management and defensive practice.

Table 4. Attitudes toward medical law, ethics and medico-legal education.

Attitude item	Mean (SD)	Agree/strongly agree %	Neutral %	Disagree/strongly disagree %
Understanding medical law improves healthcare quality	4.63 (0.69)	92.5	6.3	1.2
Medico-legal knowledge should be compulsory	4.58 (0.72)	89.4	9.8	0.8
Fear of litigation encourages defensive medicine	3.82 (0.84)	58.0	40.0	2.0
Knowing patient rights helps prevent disputes	4.49 (0.74)	89.8	9.0	1.2
Early law/ethics teaching increases professionalism	4.54 (0.75)	90.6	7.1	2.4
Understanding Mental Health Act improves psychiatric practice	4.53 (0.71)	92.2	6.7	1.2
Confidence explaining patient rights	3.39 (0.96)	35.0	53.1	11.8
Law/ethics training should be reinforced in clinical years	4.32 (0.82)	85.5	11.8	2.7
Ethical dilemmas are common in clinical practice	4.33 (0.81)	82.4	16.9	0.8
Need for continuous medico-legal education	4.51 (0.72)	89.4	9.8	0.8

Responses to clinical-ethical scenarios

Scenario responses suggested a mixed pattern of appropriate ethical instincts and uncertainty as shown in Table 5. Reporting a colleague who falsified patient data to a supervisor was selected in 193 responses when single and combined responses were counted. For treatment refusal, 153 respondents included respect for the patient's decision, whereas 14 selected overriding the decision and 14 gave unsure-containing responses. In an emergency-consent scenario, 159 answered that proceeding without consent could be justified, but 57 were unsure and 28 answered no. For a journalist requesting patient details, 199 responses included refusal, whereas eight selected disclosures. Suspected departmental negligence was reported by 229 students when single and combined 'report' responses were counted. Following a medication error without apparent harm, 133 selected documentation and 95 selected reporting to a superior, but 27 were unsure or would ignore the event. Most importantly, only 84 students (32.9%) stated that they knew where or to whom to refer when facing an ethical dilemma.

Table 5. Responses to clinical-ethical scenarios.

Scenario	Most defensible response	Observed response pattern
Colleague falsifies patient data	Escalate through appropriate supervisory/professional channels	193 reporting to a supervisor; 49 chose discussion only

Competent patient refuses life-saving treatment	Assess capacity, ensure informed refusal and respect autonomous decision	153 respecting the decision; 14 chose overrides
Emergency life-saving treatment without obtainable consent	Treat in patient's best interests when valid consent cannot be obtained	159 Yes; 57 unsure; 28 No
Journalist requests patient details	Maintain confidentiality unless valid legal/consensual basis for disclosure	199 included refusals; 8 disclose
Suspected negligence in department	Report/escalate through institutional channels	229 included reports
Wrong medication but no apparent harm	Document, disclose/escalate according to policy and monitor patient	133 documents; 95 reports to superior; 6 ignore
Referral for ethical dilemma	Know institutional/senior/ethics referral pathway	84 Yes; 170 No

DISCUSSION

This study identifies a central empirical-ethics finding: senior medical students strongly endorsed the importance of ethical and medico-legal principles, but this endorsement was not consistently accompanied by confidence or certainty when those principles had to be applied. More than nine in ten respondents agreed that understanding medical law improves healthcare quality, and large majorities supported compulsory and clinically reinforced teaching. Yet only 35.0% felt confident explaining patient rights, and substantial uncertainty appeared in scenarios concerning treatment refusal, emergency consent and ethical escalation. The findings therefore suggest an awareness-to-application gap rather than simple lack of interest in ethics.

This distinction matters because ethical practice cannot be reduced to agreement with desirable values. A student may endorse autonomy yet remain uncertain when a competent patient refuses life-saving treatment; endorse confidentiality yet struggle with the boundaries of disclosure; or value professionalism without knowing how to escalate suspected misconduct. Similar gaps between perceived importance and applied understanding have been described internationally [4,5]. The present findings extend this concern to senior Malaysian medical students and show why empirical assessment of ethical reasoning should include clinically contextualised situations rather than attitudes alone.

The absence of a statistically significant difference between Year 4 and Year 5 students should be interpreted cautiously. It does not show that clinical experience fails to develop ethical or medico-legal understanding. The cross-sectional design, the one-year difference between cohorts and the exploratory nature of the index preclude that conclusion. Nevertheless, students reporting formal teaching or previous exposure to medico-legal cases had higher index scores. Although causation cannot be inferred, this pattern is compatible with the proposition that explicit engagement with ethical and legal problems may help students recognise issues that incidental clinical exposure alone may not make visible [1].

Patient autonomy provides a particularly important example. Confidence in explaining patient rights was low despite strong endorsement of their importance. In practice, respect for autonomy requires more than knowing that consent should be obtained: clinicians must communicate material risks and alternatives, assess capacity, respond appropriately to refusal and recognise when emergency circumstances justify treatment without prior consent. Malaysian jurisprudence and MMC guidance have progressively emphasised patient-centred disclosure and materiality [9,10,16]. The educational concern is therefore not simply whether students can recall legal rules, but whether they can connect those rules to the ethical justification for respecting patients as decision-makers.

Item-level knowledge results should, however, be interpreted with restraint. Some statements involved legal concepts whose application depends on wording, clinical context, institutional setting or the facts of an individual case. For this reason, the study does not treat the exploratory index as a validated measure of ethical or legal competence. The more defensible interpretation is that the response patterns identify areas of uncertainty worthy of further inquiry. Future work should use formally validated items and, where possible, qualitative interviews or think-aloud methods to determine whether an apparently incorrect response reflects deficient knowledge, ambiguity in the item or a different interpretation of the ethical problem.

The findings also highlight the relationship between law and ethics. Students need not memorise every statute to practise ethically, and legal compliance alone does not exhaust ethical responsibility. Nevertheless, knowledge of major statutory and professional frameworks can define important boundaries for action and signal when authoritative advice is required. Uncertainty concerning record keeping, notification duties, consent and other regulatory matters therefore has ethical significance when it affects confidentiality, patient safety, accountability or respect for rights. Teaching should make explicit where law establishes a minimum standard and where ethical reasoning requires consideration beyond legal compliance.

The clinical-ethical scenarios make this point particularly visible. Responses concerning confidentiality and suspected negligence were generally reassuring, whereas refusal of treatment and emergency consent produced greater uncertainty. These situations require integration of capacity, autonomy, beneficence, urgency and professional responsibility. Most strikingly, only 32.9% of respondents reported knowing where or to whom to refer an ethical dilemma. Ethical competence includes recognition of one's own limits. Knowing when and how to seek senior, institutional, ethics or medico-legal support is therefore not peripheral; it is itself a component of responsible ethical practice.

Attitudes toward defensive medicine reveal another ethically important tension. More than half of respondents endorsed the view that doctors should practise defensively to avoid legal consequences. Defensive practice can shift the focus from the patient's interests toward professional self-protection and may encourage unnecessary investigation, cost or avoidance of higher-risk care [18]. Ethics education should distinguish defensive medicine from defensible medicine: careful clinical reasoning, transparent communication, informed consent, appropriate documentation, consultation and timely disclosure or escalation. This distinction links professional accountability with beneficence, non-maleficence and stewardship of healthcare resources.

These findings sit within a broader Malaysian context in which bioethics teaching is established but curricular structures and educator capacity remain variable [13-15]. The ethical implication is not that students require more legal facts in isolation. Rather, they require repeated opportunities to deliberate about cases in which legal duties, professional standards and ethical values interact. Longitudinal case-based learning can help students recognise that ethically defensible practice often involves both knowing the relevant rule and explaining why a particular course of action respects the patient and professional obligations.

For UNIMAS, the findings support a longitudinal clinical-ethics and medical-law thread across the medical programme. Early teaching could establish autonomy, confidentiality, professionalism and the basic legal framework; later clinical teaching could revisit these concepts through refusal of treatment, capacity, disclosure, documentation, error, mental health law, end-of-life care, media or social-media requests and professional accountability. Case-based seminars, simulated consent and disclosure encounters, structured ethical debriefing and interdisciplinary teaching with clinicians, ethicists or legal academics would place normative principles in the contexts in which students must use them [1,19].

Assessment and ethical support pathways should complement teaching. Scenario-based written questions and OSCE/OSPE stations can assess reasoning and communication rather than factual recall alone. Equally important, students should be shown a clear pathway for seeking help when an ethical problem exceeds their competence. The low reported awareness of referral pathways in this study suggests a practical institutional intervention that can be implemented without waiting for major curriculum restructuring.

The relevance extends beyond a single institution because newly qualified doctors enter a healthcare environment in which patient rights, complaints, litigation and professional accountability are increasingly visible [11,12]. Preparing graduates for this environment should not be framed primarily as protection from litigation. Its ethical purpose is to support patient-centred, transparent and accountable practice. Medico-legal education is most defensible when it strengthens ethical clinical judgement rather than when it promotes risk avoidance as an end in itself.

Strengths and Limitations

A strength was the high response rate (92.7%) across both senior clinical cohorts, alongside assessment of knowledge, attitudes and hypothetical scenarios. Nevertheless, this single-institution, cross-sectional study cannot establish causality or represent all Malaysian medical students. Self-reported teaching exposure may be subject to recall bias and confounding by student interest, prior learning or curricular experience. Questionnaire responses, including hypothetical scenario selections, may reflect social desirability and cannot demonstrate real clinical conduct or ethical competence.

The adapted questionnaire did not undergo comprehensive contemporary validation, including formal expert content-validity assessment, cognitive interviews, test–retest reliability or construct validation. Some legal statements were context-dependent, and multiple selections complicated scoring. The 24-item index was assembled post hoc for exploratory comparisons; item-level findings are more interpretable than a total score and no pass/fail threshold is justified.

The Year 5 response rate of 87.5% leaves potential non-response bias. The study did not measure teaching duration or quality, prior legal education, academic performance or clinical rotations; unmeasured factors may explain observed group differences.

No interviews or observed clinical assessments were conducted to explore reasoning or behaviour. Relevant laws and professional guidance may change, requiring legal review and psychometric evaluation before future competency-oriented use.

Implications for ethics education and clinical practice

The findings support several practical responses: explicit mapping of ethical competencies across the curriculum; repeated case-based discussion during clinical years; simulation of consent, refusal, disclosure, documentation and escalation; interdisciplinary teaching involving clinicians and legal or ethics expertise; scenario-based assessment; and a visible student-facing pathway for ethical consultation. These measures should be evaluated prospectively. Future studies should also incorporate validated instruments and qualitative methods to explore how students' reason through competing values, how the hidden curriculum influences their decisions and whether educational interventions improve applied ethical reasoning over time.

CONCLUSIONS

Senior clinical medical students at UNIMAS strongly recognised the importance of medical law, patient rights and ethical practice, but their responses revealed an important gap between endorsement of these principles and confidence or consistency in applying them to selected clinical-ethical situations. Uncertainty was particularly evident around patient rights, treatment refusal, emergency consent and ethical escalation, and only one-third reported knowing where to seek help for an ethical dilemma. Formal teaching and previous medico-legal case exposure were associated with higher exploratory knowledge scores, although the cross-sectional design does not establish causation. These findings should not be used to label students as ethically competent or incompetent. Rather, they provide empirical evidence supporting longitudinal, clinically integrated ethics and medical-law education that emphasises reasoning, communication, patient autonomy, professional accountability and knowing when to seek ethical support.

DECLARATIONS

Abbreviations

MMC, Malaysian Medical Council; SD, standard deviation; UNIMAS, Universiti Malaysia Sarawak.

Ethics approval and consent to participate

This study was conducted in accordance with the principles of the Declaration of Helsinki. Ethical approval was obtained from the Ethics Committee of the Faculty of Medicine and Health Sciences, University Malaysia Sarawak. Participation was voluntary and anonymous, and informed consent was obtained from all participants prior to participation.

Clinical trial number

Not applicable.

Consent for publication

Not applicable.

Availability of data and materials

The de-identified dataset used and/or analysed during the current study is available from the corresponding author on reasonable request, subject to institutional ethics and confidentiality requirements.

Competing interests

The authors declare that they have no competing interests.

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Authors' contributions

LSH conceived the study, conducted the analysis, and drafted the manuscript. LBL and LYL contributed to data collection and analysis. DSAM and KTS assisted in data collection. SCC conceived and supervised the study. All authors reviewed and approved the final manuscript.

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