# Integrating Ethics, Professionalism, and Academic Integrity in Medical Education: A Systems-Based Conceptual Framework

Mohammad Muzaffar Mir[1]*, Muffarah Hamid Alharthi[2], Ahmed Yahia Al Ameer[3], Sultan Abdullah S Al Amri[3], Gulzar Muzaffar Mir[4], Fahad Alremthi[5], Sadaf M Mir[6], Abdullah M. Al-Shahrani[2], Alsaleem Mohammed Abadi[7], Mushabab Alghamdi[8], Ayyub Ali Patel[9], Ayaz Khurram Mallick[9], Ahmed Mussad Senbel[10], Hany M. A. Sonpol[11]

[1]Department of Clinical Biochemistry, College of Medicine, University of Bisha, Bisha, 61922, Saudi Arabia

[2]Department of Family and Community Medicine, College of Medicine, University of Bisha, Bisha, 61922, Saudi Arabia

[3]Department of surgery, College of Medicine, University of Bisha, Bisha, 61922, Saudi Arabia

[4]Department of Psychiatry, SKIMS Medical College, Bemina, 190018, J and K, India

[5]Diabetes and Endocrine Centre, King Abdullah Hospital, Ministry of Health, Bisha, 61922, Saudi Arabia

[6]Al-Falah School of Medical Science and Research Centre, Dhauj, Faridabad, 121004, Haryana, India.

[7]Department of Family and Community Medicine, College of Medicine, King Khalid University, Abha 61421, Saudi Arabia

[8]Department of Internal Medicine, College of Medicine, University of Bisha, Bisha, 61922, Saudi Arabia

[9]Department of Clinical Biochemistry and Medical Education, College of Medicine, King Khalid University, Abha 61421, Saudi Arabia

[10]Department of surgery, College of Medicine, University of Bisha, Bisha, 61922, Saudi Arabia/Surgical Oncology Department, Oncology Centre, Faculty of Medicine, Mansoura University, Mansoura, 35516 Egypt

[11]Department of Anatomy, Faculty of Medicine, Mansoura University, Mansoura, Egypt

**HOW TO CITE:**

Mohammad Muzaffar Mir, Muffarah Hamid Alharthi, Ahmed Yahia Al Ameer, Sultan Abdullah S Al Amri, Gulzar Muzaffar Mir, Fahad Alremthi, Sadaf M Mir, Abdullah M. Al-Shahrani, Alsaleem Mohammed Abadi, Mushabab Alghamdi, Ayyub Ali Patel, Ayaz Khurram Mallick, Ahmed Mussad Senbel, Hany M. A. Sonpol (2026). Integrating Ethics, Professionalism, and Academic Integrity in Medical Education: A Systems-Based Conceptual Framework.

## ABSTRACT:

**Background**

Ethics, professionalism, and academic integrity are central to medical education and to sustaining public trust in the medical profession. However, ongoing transformations in health professions education, including competency-based reforms, intensified assessment cultures, digitalization, and the emergence of generative artificial intelligence, have introduced new and persistent challenges to their development. Increasing reports of ethical lapses, professionalism concerns, and academic misconduct suggest that traditional, fragmented approaches to ethics instruction and regulation may no longer be sufficient.

**Focus**

This paper examines ethics, professionalism, and academic integrity as socially situated and developmental processes rather than static competencies or solely individual attributes. Drawing on professional identity formation, sociocultural learning theory, the hidden curriculum, and systems thinking, it explores contemporary challenges

International Journal of Special Education, 41(2s), 188-208.



related to role modelling, assessment pressures, learner moral distress, digital professionalism, and institutional governance. A systems-oriented conceptual framework is proposed, positioning professional identity formation as a central mediating process through which formal curricula, informal learning environments, assessment structures, and organizational cultures interact to shape ethical outcomes.

**Implications**

By interpreting ethical lapses as potential indicators of system misalignment rather than solely individual failure, this analysis highlights the importance of coherent, longitudinal, and institutionally aligned approaches to ethical development. The framework offers a structured lens to inform curriculum design, assessment practices, faculty development, and governance. Future work should prioritize theory-informed, longitudinal research and system-level interventions to better understand and support sustainable ethics, professionalism, and academic integrity in medical education

Keywords: Medical Ethics; Professionalism; Academic integrity; Professional identity formation; Hidden curriculum; Health professions education

## 1. Introduction

Ethics, professionalism, and academic integrity constitute the moral and social backbone of medical education. Beyond technical competence, society entrusts physicians with responsibilities that demand moral judgment, accountability, and commitment to ethical standards. Medical education, therefore, is not merely a process of knowledge transmission and skills acquisition; it is a formative enterprise through which learners are socialized into a profession defined by public trust, ethical obligation, and service to humanity [1, 2]. Historically, ethical conduct in medicine has been guided by foundational moral principles and professional codes, such as the Hippocratic tradition and contemporary ethical frameworks. These principles — autonomy, beneficence, non-maleficence, justice, integrity, and accountability — continue to shape expectations of professional behavior in clinical practice. However, translating these abstract principles into consistent conduct during training remains a persistent challenge [3, 4]. Increasing reports of academic dishonesty, lapses in professionalism, and ethical distress among medical trainees have raised concerns about the effectiveness of existing educational approaches [1, 2].

Over the past two decades, medical education has undergone substantial structural and pedagogical transformation [5]. Expansion of medical schools, implementation of competency-based medical education, reliance on high-stakes assessments, and widespread adoption of digital learning technologies have reshaped learning environments globally [6, 7]. While these reforms have improved standardization and accountability, they have also intensified performance pressures, increased competition, and introduced novel ethical challenges. Online assessments, artificial intelligence assisted learning tools, and remote supervision have blurred traditional boundaries of academic integrity and professional responsibility [6, 7].

Within this evolving context, ethics and professionalism are often addressed in fragmented ways. Ethics may be taught as a standalone course, professionalism framed as a set of expected behaviors, and academic integrity enforced through disciplinary policies [2, 8]. Such compartmentalized approaches risk overlooking the complex interactions between individual learners, faculty role models, institutional cultures, and regulatory environments. Evidence increasingly suggests that ethical behavior is shaped less by formal instruction alone and more by the implicit messages conveyed

through assessment practices, organizational norms, and leadership behaviors; the so-called hidden and informal curricula [7].

Furthermore, ethical lapses during training are not isolated educational concerns; they may foreshadow future professional misconduct. Research has demonstrated associations between unprofessional behavior in medical school and later disciplinary action in clinical practice, underscoring the long-term implications of ethical development during training. These findings reinforce the need for a systems-oriented understanding of ethics and professionalism that extends beyond individual moral reasoning [2, 9, 10].

Despite growing recognition of these complexities, the medical-education literature lacks integrative conceptual models that coherently link ethical principles, institutional determinants, educational processes, and learner outcomes. Existing frameworks often focus narrowly on professional identity formation, learning environments, or assessment integrity without fully articulating how these elements interact across levels of the education system. As a result, educators and policymakers may struggle to design interventions that address root causes rather than symptoms of ethical challenges [11, 12].

The purpose of this paper is to address this gap by proposing an integrated, multi-level conceptual framework for ethics, professionalism, and academic integrity in medical education. The framework positions ethical principles as foundational values that are operationalized through system-level and institutional structures, mediated by educational processes, and reflected in learner-level outcomes. By emphasizing feedback and quality-improvement loops, the model highlights ethics and professionalism as dynamic, context-sensitive phenomena rather than static attributes [2, 3]. By offering a coherent conceptual lens, this paper aims to support medical educators, institutional leaders, accrediting bodies, and researchers in understanding how ethical and professional behaviors are cultivated, reinforced, or undermined within contemporary medical-education systems. Ultimately, strengthening ethics, professionalism, and academic integrity is essential not only for individual learner development but also for sustaining public trust in the medical profession[13]

## 2. Theoretical Foundations of Ethics and Professionalism in Medical Education

Ethics and professionalism in medical education are grounded in a rich body of moral philosophy, professional theory, and educational scholarship. These foundations shape not only expectations of conduct but also how learners understand their roles, responsibilities, and identities as future physicians [13, 14]. Contemporary scholarship increasingly recognizes that ethics and professionalism are not static attributes, but dynamic, developmental constructs shaped through interaction with social, institutional, and cultural contexts [13, 14].

### 2.1 Ethical Foundations and Normative Principles

The ethical principles of medicine are conventionally defined by autonomy, beneficence, non-maleficence, fairness, integrity, and accountability. These concepts, articulated in principlism and professional ethical norms, function as normative benchmarks guiding morally permissible conduct in educational and clinical settings [3, 8]. Figure 1 demonstrates how these values collectively support professionalism and academic integrity. In medical education, the principle of autonomy applies to learners as emerging moral actors, necessitating educational settings that foster reflective judgment, informed decision-making, and incremental responsibility [15]. Beneficence and non-maleficence compel institutions to develop curriculum and evaluation frameworks that facilitate learning while mitigating harm, such as undue stress, humiliation, or hazardous clinical exposure [16, 17]. Justice necessitates equity, clarity, and uniformity in admissions, evaluations, and disciplinary procedures, especially in high-stakes assessment contexts. Integrity and accountability consolidate these concepts by underscoring honesty, responsibility, and answerability to colleagues, institutions, and society [18, 19].

Importantly, ethical principles derive their educational significance not from formal articulation alone but from their consistent enactment within institutional policies and everyday practices. Misalignment between espoused values and lived experiences can erode learners' trust and distort ethical development [20]. Figure 1 illustrates how these principles collectively underpin professionalism and academic integrity.


***Figure 1.***

*Integration of core ethical principles and professional values as the foundational framework for professionalism and academic integrity in medical education. Core ethical principles including autonomy, beneficence, non-maleficence, justice, integrity, and accountability function as normative anchors that guide ethical conduct. Their consistent enactment within educational systems supports the development of professionalism and sustains academic integrity across learning environments.*

### 2.2 Professionalism as a Social Contract

Professionalism is widely conceptualized as a manifestation of the social contract between medicine and society, wherein physicians are granted professional autonomy and societal trust in exchange for commitments to competence, ethical conduct, altruism, and self-regulation [2, 13]. Medical education plays a central role in transmitting and sustaining this contract across generations of practitioners.

From this perspective, professionalism extends beyond individual virtues to encompass collective norms, shared values, and institutional responsibilities. Professional conduct is shaped not only by personal morality but also by expectations embedded in professional communities, regulatory frameworks, and organizational cultures [20, 21]. Consequently, professionalism education must address both individual behaviors and the broader systems that legitimize or undermine professional values. Failures of professionalism during training are therefore not merely learner deficits but potential indicators of systemic misalignment. When institutions tolerate unethical conduct, inequitable practices, or exploitation of learners, they risk undermining the legitimacy of professional self-regulation itself [22].

### 2.3 Professional Identity Formation and Academic Integrity

Professional identity formation (PIF) offers an essential perspective for comprehending the longitudinal development of ethics and

professionalism. It denotes the progressive process by which learners assimilate professional ideals, norms, and roles, incorporating them into their self-concept as physicians [18, 23, 24]. Ethical reasoning and professional behavior are fundamental to this identity formation process. Students perceive ethical challenges, faculty conduct, evaluation methods, and institutional reactions as indicators of the profession's genuine ideals. Positive role modelling, narrative reflection, and supportive mentorship promote alignment between personal values and professional expectations [23, 24]. Conversely, exposure to moral suffering, cynicism, or hidden curricula that contradict formal education may lead to fragmented or conflicted professional identities.

Academic integrity embodies the implementation of ethical and professional standards in educational settings. It includes integrity in evaluation, responsible scholarship, respect for intellectual property, and accountability for educational procedures [25, 26]. Academic integrity is fundamentally a professional ideal that transcends academic settings, influencing clinical practice and research [18, 27]. Modern scholarship increasingly regards academic integrity as a developmental and contextual concern rather than merely an issue of individual wrongdoing. Intense performance pressure, unclear expectations, competitive educational settings, and inconsistent policy enforcement can compromise integrity, even among individuals who uphold ethical principles [27, 28]. Educational methods that prioritize equity, clarity, and constructive feedback are more likely to cultivate an internalized ethical commitment than only punitive measures [27, 29]. Table 1 summarizes the interpretation of ethical concepts and their implementation within educational institutions.

**Table 1.** Ethical principles and their operationalization in medical education

| Ethical Principle | Educational Interpretation | Institutional Structures | Educational Processes | Ref |
|---|---|---|---|---|
| **Autonomy** | Respect for learner agency and moral reasoning | Fair policies, transparent governance | Reflective learning, shared decision-making | [1,2] |
| **Beneficence** | Promoting learner development and well-being | Supportive leadership, wellness policies | Formative feedback, mentorship | [3,4] |
| **Non-maleficence** | Avoidance of harm in training environments | Safe reporting systems, workload regulation | Psychological safety, remediation | [3,5] |
| **Justice** | Equity and fairness in education | Equitable admissions and assessment | Standardized evaluation, bias mitigation | [6,7] |
| **Integrity** | Honesty and accountability | Academic integrity policies | Ethical assessment practices | [10, 18, 29] |
| **Accountability** | Responsibility to profession and society | Accreditation and oversight mechanisms | Professionalism assessment | [14,19] |

### 2.4 Systems Thinking and the Ethical Climate in Medical Education

Systems thinking has become an essential foundation for comprehending ethics and professionalism in medical education [30, 31. Ethical behavior is increasingly seen as a resultant quality of intricate interactions among persons, structures, and cultures, rather than merely the outcome of solitary moral reasoning. The ethical environment of an institution profoundly impacts learner behavior, characterized by the shared perception of which activities are promoted,

rewarded, or dissuaded. Governance frameworks, evaluation systems, workload requirements, and leadership methodologies jointly influence ethical opportunities within educational settings. This viewpoint contests the idea that ethical violations are only attributable to individual shortcomings. In modern medical education, rising organizational complexity, digitalization, and performance expectations may inadvertently promote unprofessional conduct if ethical considerations are not deliberately integrated into system design. These theoretical viewpoints jointly endorse the creation of integrated conceptual frameworks that connect values, institutional structures, educational processes, and learner outcomes. Ethical principles offer normative foundations professionalism frames expectations [32], professional identity formation delineates developmental pathways [23, 32], academic integrity embodies applied ethical conduct and systems thinking clarifies structural and cultural impacts [2, 28].

## 3. System-Level and Institutional Determinants of Ethics, Professionalism, and Academic Integrity

The principles of ethics, professionalism, and academic integrity in medical education are significantly influenced by systemic and institutional factors [1-3]. Although personal moral reasoning is significant, ethical conduct is predominantly shaped by organizational frameworks, governance systems, and cultural standards [34, 35]. Institutions not only convey ethical ideas; they also actively shape the circumstances that increase the likelihood of ethical or unethical behaviors. Comprehending these characteristics is crucial for tackling ethical concerns in a sustainable and equitable fashion. The intricate interplay of these components is encapsulated in Table 2.

**Table 2.** Multi-level determinants, processes, and outcomes shaping ethics, professionalism, and academic integrity

| Level | Key Components | Illustrative Examples | Expected Outcomes | |
|---|---|---|---|---|
| System-level | Regulation, accreditation | National standards, licensure exams | Accountability, public trust | [2, 13], 20 |
| Institutional | Governance, leadership, culture | Ethical leadership, policy enforcement | Ethical climate, fairness | [16, 18] |
| Educational processes | Teaching, assessment, feedback | Programmatic assessment, reflection | Ethical decision-making | [12, 13] |
| Faculty | Role modelling, supervision | Faculty development programs | Professional socialization | [18, 33] |
| Learner | Identity and behavior | Integrity in assessment | Trustworthy practice | [9,10] |

### 3.1 Regulatory Frameworks and Institutional Governance

Regulatory agencies and accreditation bodies establish ethical and professional norms via licensure criteria, standards, and codes of conduct [2, 32]. Effectively constructed regulatory frameworks include ethics and integrity into institutional accountability systems, indicating that professionalism, learner welfare, and ethical educational settings are fundamental priority rather than secondary issues [34]. Nonetheless, regulatory oversight may yield unforeseen outcomes. Overemphasis on compliance and documentation may promote cosmetic adherence instead of

authentic ethical commitment. Institutions may prioritize fulfilling accreditation standards over fostering thoughtful ethical cultures, so diminishing ethics to mere procedural requirement. Institutional governance and leadership influence the ethical atmosphere by determining resource allocation, policy enforcement, and strategic priorities. Transparent governance, equitable decision-making, and uniform policy execution foster trust and strengthen ethical standards [36]. Ethical leadership exemplifying responsibility, transparency, and respect fortifies professionalism, whereas tolerance of inequity, favoritism, or unethical conduct undermines institutional credibility [36, 37].

### 3.2 Curriculum, Assessment Systems, and Educational Processes

Curriculum and assessment systems implement ethical values in daily educational practice. The curriculum, pedagogical methods, and assessment practices collectively influence learners' impressions of institutional priorities. When ethics and professionalism are undervalued or evaluated superficially, learners deduce that these areas are subordinate to technical proficiency [38]. The design of assessments is notably impactful. High-stakes assessments, competitive evaluation, and stringent advancement standards may unintentionally promote academic dishonesty when regarded as inequitable [18, 39. Conversely, formative, transparent, and multi-source assessment methodologies foster integrity, responsibility, and reflective learning [39].
The incorporation of ethics and professionalism throughout clinical experiences, simulations, and reflective practices enhances their significance for practical decision-making. Alignment between curricular objectives and evaluation methodologies guarantees that ethical development is acknowledged, supported, and rewarded, rather than seen as a mere abstract expectation.

### 3.3 Faculty Development, Role Modelling, and the Learning Environment

Faculty members are crucial in conveying ethical and professional ideals. Daily contacts, feedback, and conduct significantly influence learners' comprehension of professionalism, beyond the impact of formal education alone [33, 40]. Role modelling functions perpetually and is a fundamental catalyst for the development of professional identity.

Faculty development programs that focus on integrity, equitable assessment, and constructive criticism augment educators' ability to exemplify desired behaviors [40, 41]. Conversely, inadequate faculty support may sustain detrimental aspects of the hidden curriculum. Tolerance for dishonesty, contemptuous attitudes towards professionalism, and uneven evaluation processes normalize unethical behavior and undermine institutional ideals [41].

The comprehensive learning environment, including social interactions, customs, and infrastructure, embodies the experiential aspect of medical education. Psychological safety, inclusion, respect, and equity are fundamental components of an ethical environment. When learners see an environment conducive to questioning, acknowledging ambiguity, and expressing concerns, they are more inclined to participate in moral contemplation and professional development [42]. In contrast, hierarchical or punitive societies stifle ethical discourse and promote conformity. Even well-crafted programs cannot thrive if the organizational culture undermines the proclaimed ideals [42, 43].

### 3.4 Systems Integration and Organizational Ethical Climate

Ethics, professionalism, and academic integrity arise from the interplay of various systemic components rather than from single factors. Regulatory frameworks, governance structures, curricula, faculty practices, and organizational culture all influence the ethical environment in which learners function [1, 40, 43]. Framing these domains as systemically ingrained phenomena redirects attention from individual responsibility to collective institutional accountability. This viewpoint facilitates the discovery of leverage points for intervention, alignment of policies with principles, and the creation of circumstances that consistently promote ethical behavior. System-level integration guarantees that ethical ideals are not merely stated but ingrained within structures,

procedures, and outcomes. This congruence enhances professionalism, fosters academic integrity, and maintains public confidence in medical education institutions [34, 43, 45].

## 4. Educational Processes and Learning Experiences Influencing Ethics, Professionalism, and Academic Integrity

Educational procedures and learning experiences serve as the essential intermediary between systemic factors and learner outcomes. Regulatory frameworks, governance structures, and institutional cultures create the conditions for ethical education; however, it is through daily interactions that ethics, professionalism, and academic integrity are enacted, interpreted, and internalized [40, 43].

### 4.1 Instructional Interactions and Experiential Learning

Teaching–learning interactions offer essential chances for learners to engage with ethical ideals in practice. Faculty-learner connections, clinical supervision, and small group discussions convey both implicit and explicit messages regarding respect, responsibility, and professional standards. Pedagogical methods that encourage dialogue, reflection, and active participation enhance moral reasoning and ethical awareness [2, 44]. Experiential learning significantly impacts this approach. Clinical interactions, simulations, and case-based discussions immerse learners in ambiguity, conflicting values, and authentic ethical issues, facilitating a more profound integration of professional values [2, 44, 45]. Conversely, authoritarian, dismissive, or demeaning pedagogical methods may impede moral development and normalize unprofessional conduct [44, 45].

### 4.2 Assessment Practices, Academic Integrity, and Feedback Systems

Assessment techniques significantly influence integrity and professionalism. Students frequently view assessment as indicative of institutional priorities; when evaluation systems are regarded as inequitable, stress and academic dishonesty may escalate [9, 10, 18]. In contrast, formative, transparent, and well-aligned assessments enhance responsibility, integrity, and professional development [46].

Feedback mechanisms are equally vital to ethical advancement. Prompt, polite, and constructive feedback exemplifies accountability and humility while facilitating learner advancement [47]. When feedback specifically pertains to communication, respect, and accountability, it underscores the significance of ethical behavior in conjunction with technical proficiency. Systematic reflection enhances this approach [47]. Reflective writing, mentorship dialogues, and structured debriefing facilitate learners in critically analysing experiences, values, and ethical quandaries, so promoting moral discernment and professional development. Remediation methods must adhere to ethical values. Transparent and helpful repair embodies justice and beneficence, while punitive or stigmatizing methods may exacerbate disengagement and distress [48]. Figure 2 depicts the correlation between evaluation methods and ethical decision-making in medical education.


Figure 2. Educational processes shaping ethics, professionalism, and academic integrity

Educational processes mediate the translation of institutional values into learner experiences and ethical outcomes. Teaching–learning interactions, assessment and feedback systems, professional socialization, and digital learning environments influence learner responses, including stress and moral distress, which in turn shape ethical decision-making and professional behavior. Feedback loops support continuous alignment between educational practices and desired ethical outcomes, reinforcing ethics and professionalism as system-embedded rather than purely individual attributes.

### 4.3 Professional Socialization and the Hidden Curriculum

Professional socialization denotes the process by which learners assimilate norms, values, and behaviors through engagement in professional groups. This process is influenced by both formal curricula and the hidden curriculum, which encompasses implicit expectations, institutional hierarchies, and daily interactions [25, 26, 49]. Positive role modelling, ethical leadership, and collaborative practice environments facilitate the formation of cohesive professional identities. Conversely, exposure to cynicism, moral compromise, or allowed unethical behavior may result in internal conflict and the deterioration of professional ideals. Addressing the hidden curriculum necessitates deliberate initiatives, encompassing faculty development, evaluation of institutional culture, and organized spaces for learners to contemplate and discuss ethical dilemmas. Such methodologies empower learners to critically interact with, rather than merely assimilate, the conventions of their surroundings [40, 43, 49].

### 4.4 Digital Learning Environments and Integration Within the Conceptual Framework

The expansion of digital and technology-enhanced learning environments presents both potential and ethical dilemmas. Digital platforms, remote evaluations, and AI-enhanced instruments provide significant issues with academic integrity, data confidentiality, and professional limits. Although technology can improve ethics teaching by providing greater accessibility, realistic simulations, and tailored feedback, insufficient oversight may promote wrongdoing or undermine trust. Incorporating ethical concepts into the design, implementation, and governance of digital technologies is crucial for maintaining professionalism in dynamic educational environments [6, 7, 50, 51]. Within this digital context, the strategic integration of artificial intelligence (AI) technologies into educational processes represents a paradigm shift in formative

assessment. By utilizing AI to continuously detect and correct errors in regular assignments, institutions can identify learning gaps early and guide the development of academic integrity without exclusive reliance on punitive methods. Furthermore, this utilization helps alleviate the administrative and grading burdens on faculty members, allowing them more time to fulfil their essential roles as mentors and professional role models [7, 18] Educational processes function as the essential connection between institutional frameworks and learner results. Instructional methodologies, evaluative frameworks, feedback mechanisms, and socialization experiences jointly convert abstract ethical ideas into tangible educational realities. The quality and alignment of these processes dictate the internalization or erosion of ethical ideals [39, 40, 43]. By enhancing critical leverage points such as faculty development, equitable and transparent evaluation, and organized reflective practice, institutions can foster the sustainable advancement of ethics, professionalism, and academic integrity [43, 52, 53].

## 5. Ethical Decision-Making as a Central Integrative Process

Ethical decision-making represents the critical point at which ethical principles, professional values, and contextual influences converge into action. It functions as the central integrative mechanism linking institutional structures, educational processes, and learner behavior, thereby translating abstract ethical commitments into observable professional conduct [54, 57]. Rather than a purely individual cognitive activity, ethical decision-making is increasingly understood as a dynamic, context-sensitive process shaped by interactions between learners and their environments.

### 5.1 Conceptual Foundations and Components of Ethical Decision-Making

In medical education, ethical decision-making involves recognizing moral dilemmas, evaluating competing values, and selecting actions aligned with professional standards. Classical models emphasize cognitive reasoning and staged moral development [52, 53]. However, contemporary perspectives recognize that ethical judgement is not solely an intellectual exercise but is embedded within social, organizational, and cultural contexts. Ethical decision-making comprises interconnected components, including moral sensitivity (recognition of ethical issues), moral judgement (evaluation of alternatives), moral motivation (prioritization of ethical values), and moral action (implementation of decisions) [54, 55, 56]. These components do not function linearly but interact dynamically, influenced by situational complexity and experiential learning. Ethical choices arise across both clinical and educational contexts, including honesty in assessment, accountability to patients and institutions, responsible use of authority, and navigation of uncertainty. Formal instruction, assessment expectations, and role modelling collectively shape how learners interpret and respond to these situations [3, 18, 39].

### 5.2 Contextual and System-Level Influences on Ethical Decisions

Ethical decision-making is deeply influenced by contextual and system-level factors. organizational pressures, including workload, time constraints, and hierarchical structures, can either facilitate or constrain ethical action [54]. Learners frequently encounter moral distress when institutional realities prevent them from acting in accordance with their ethical judgement.

Power dynamics within clinical and educational hierarchies may discourage learners from raising ethical concerns or challenging questionable practices. In contrast, psychologically safe environments and supportive supervision enable open dialogue, critical reflection, and ethical engagement [56].

Institutional cultures play a decisive role in shaping moral motivation. Environments that reward honesty, transparency, and accountability reinforce ethical behavior, whereas ambiguous expectations or punitive climates may promote compliance rather than genuine moral commitment [55]. This underscores that ethical lapses are often not failures of knowledge but consequences of misaligned systems.

### 5.3 Ethical Decision-Making, Professional Identity, and Moral Development

Ethical decision-making is closely intertwined with professional identity formation. Each decision contributes to the evolving self-concept of the learner as a physician, reinforcing internalized values and professional norms [57]. Repeated engagement with ethical dilemmas, supported by reflection and mentorship, facilitates the integration of ethical reasoning into professional identity. When personal values align with institutional expectations, ethical decision-making becomes habitual and intrinsic rather than externally enforced. Conversely, persistent misalignment between espoused and enacted values may lead to moral disengagement, cynicism, or erosion of professional identity [57].

Educational environments that encourage reflection, dialogue, and critical engagement with ethical challenges enable learners to move beyond rule-based reasoning toward contextually grounded, value-driven judgement. In this sense, ethical decision-making is both an outcome of professional development and a mechanism through which that development is sustained.

### 5.4 Educational Strategies and Integration Within the Conceptual Framework

Targeted educational strategies play a crucial role in strengthening ethical decision-making capacity. Case-based discussions, simulations, and guided mentorship provide structured opportunities for learners to practice ethical reasoning in complex, realistic scenarios [37, 57]. These approaches are most effective when embedded longitudinally across the curriculum, allowing progressive development rather than episodic exposure. Assessment systems also shape ethical behavior by signalling institutional priorities. Evaluations that measure ethical reasoning, professionalism, and reflective capacity reinforce accountability and alignment with professional standards. Importantly, assessment should emphasize contextual application and critical thinking rather than rote recall of ethical codes [44, 58].

Within the broader conceptual framework, ethical decision-making represents the point at which theoretical principles, institutional determinants, and educational processes converge into action. It transforms values into behavior and reveals the effectiveness of system-level design. Viewing ethical decision-making as an integrative process shifts attention from individual responsibility alone to the enabling or constraining conditions created by educational systems [57].

This perspective provides a foundation for institutional interventions that strengthen ethical capacity by addressing both individual competencies and contextual influences, thereby promoting professionalism, academic integrity, and trustworthy practice in a sustainable manner [59, 60, 61].

## 6. Learner Outcomes: Identity and Integrity in Practice

Learner-level outcomes represent the culmination of ethical principles, system-level determinants, educational processes, and ethical decision-making within the conceptual framework. These outcomes extend beyond observable behaviors to include deeper developmental transformations in values, judgement, and professional responsibility. Conceptualizing outcomes as products of educational systems rather than isolated individual traits allows for a more comprehensive evaluation of ethics and professionalism initiatives [44, 59].

### 6.1 Ethical Decision-Making Competence and Professional Judgement

Ethical decision-making competence is a central learner outcome, reflecting the ability to recognize moral dilemmas, balance competing values, and act consistently with professional standards [37, 57, 59]. True competence extends beyond knowledge of ethical principles to include contextual judgement, moral reasoning, and the capacity for ethical action under pressure.

Educational environments that consistently integrate reflection, feedback, and experiential learning cultivate graduates capable of navigating complex and uncertain moral situations. In contrast, fragmented or inconsistent instruction risks producing superficial understanding without meaningful application. Ethical competence therefore represents not only cognitive mastery but

also the integration of judgement, motivation, and action within real-world contexts.

### 6.2 Professional Identity Formation as a Developmental Outcome

Professional identity formation (PIF) reflects the internalization of professional values, norms, and roles, shaping how individuals understand themselves as physicians. It emerges through the integration of institutional expectations with personal beliefs and experiences [23, 44]. Alignment between curriculum, role modelling, and assessment fosters coherent and internally grounded professionalism. Conversely, persistent dissonance between formal teaching and lived experience may result in fragmented identities, disengagement, or cynicism, undermining ethical practice [24, 60]. Viewing PIF as an outcome emphasizes the enduring influence of educational environments, extending beyond graduation into lifelong professional conduct.

### 6.3 Academic Integrity and Ethical Behavior in Practice

Academic integrity behaviors, including honesty in assessment, responsible scholarship, and accountability for learning, represent early and formative expressions of professional ethics [27, 29, 61]. These behaviors are not merely academic expectations but predictors of future professional conduct, with evidence linking misconduct during training to later unprofessional practice [60, 61]. Educational systems that prioritize fairness, transparency, and support foster authentic commitment to integrity, whereas punitive or fear-driven approaches often produce compliance without internalization [28, 29]. Framing academic integrity as a developmental outcome shifts the focus from enforcement to ethical formation, reinforcing its role as a foundational component of professionalism.

### 6.4 Trustworthy Practice, Contextual Variation, and System Integration

Trustworthy clinical practice represents the synthesis of technical competence and ethical reliability, forming the basis of patient and societal trust. It reflects the consistent integration of knowledge, skills, and values in decision-making and professional behavior [3, 59,]. Medical education therefore carries the responsibility to model ethical practice, address moral distress, and ensure alignment between institutional policies and professional values. Learner outcomes are not uniform but vary across institutional, cultural, and contextual environments. Curriculum design, assessment systems, and organizational culture significantly influence how ethics and professionalism are expressed [1, 43]. Equity, inclusivity, and psychological safety are essential to support diverse learners in navigating ethical challenges effectively.

Within the integrated conceptual framework, learner outcomes, ethical decision-making competence, professional identity formation, academic integrity behaviors, and trustworthy practice are interdependent and emergent. They reflect the alignment of systems, processes, and values rather than isolated individual capacities [62, 63, 64]. Evaluating both educational structures and learner performance enables institutions to foster continuous improvement and shared accountability for ethical development.

## 7. Feedback Loops, Alignment, and Quality Improvement in Ethics and Professionalism Education

Feedback loops and continuous quality improvement (QI) systems sustain ethics, professionalism, and academic integrity within medical education. Ethical development is inherently iterative rather than linear; dynamic interactions between values, policies, practices, and outcomes ensure responsiveness and resilience to evolving challenges [47, 64, 65]. Within the integrated framework, feedback loops reconnect learner-level outcomes to institutional structures, enabling adaptive and ethically grounded system reform [47].

### 7.1 Conceptualizing Feedback as a Multi-Level Ethical Process

Traditionally, feedback has focused on individual learner performance. From a systems perspective, however, feedback extends across multiple levels, including institutional processes, governance structures, and organizational culture. Data derived

from professionalism assessments, academic integrity incidents, and learning environment evaluations provide critical insight into how effectively ethical principles are enacted in practice [41, 43]. Ethical feedback processes promote transparency, accountability, and institutional self-awareness. Organizations that systematically collect, interpret, and act upon feedback demonstrate ethical stewardship, whereas neglecting such data risks perpetuating systemic blind spots and eroding trust [40, 41, 43]. In this sense, feedback functions not only as an educational tool but also as a mechanism of institutional accountability.

### 7.2 Alignment Between Policy, Practice, and Institutional Reality

Sustaining ethical credibility requires alignment between formal policy and lived experience. Discrepancies between stated values and everyday practices weaken trust and undermine professionalism. Policies on academic integrity or professional conduct may articulate ethical ideals that are inconsistently implemented in practice.

Continuous feedback enables identification and correction of such misalignments. Patterns of misconduct or learner dissatisfaction often reflect systemic issues in assessment design, supervision, or organizational culture rather than isolated individual failure [35, 56, 57]. Incorporating these insights into governance reform restores coherence between ethical aspiration and operational reality, reinforcing institutional integrity.

### 7.3 Quality Improvement as an Ethical and Institutional Responsibility

QI in medical education parallels ethical obligations in clinical practice, encompassing continuous monitoring, evaluation, and refinement of systems [65]. Ethical QI involves iterative cycles of data collection, analysis, intervention, and reassessment, integrating both quantitative indicators and qualitative experiences [65, 66].

Framing QI as an ethical responsibility shifts its purpose from technical compliance to collective moral accountability. It emphasizes that institutions bear responsibility not only for defining ethical standards but also for ensuring that systems consistently support ethical behavior. Such an approach strengthens institutional integrity and promotes sustainable ethical practice.

### 7.4 Closing the Loop: Learner Voice, System Integration, and Sustainable Reform

Effective feedback systems depend on meaningful inclusion of learner perspectives. When learners are able to express concerns without fear of reprisal, psychological safety transforms feedback into collaborative engagement rather than passive reporting [56, 62, 67]. Mechanisms such as confidential reporting channels, structured forums, and participatory committees institutionalize ethical dialogue and strengthen shared responsibility.

Feedback achieves its full value only when translated into action. Integrating outcome data into policy revision, assessment reform, faculty development, and governance practices completes the feedback loop between evidence and institutional change [33, 40, 62]. This iterative cycle; data, insight, action, and re-evaluation, supports continuous alignment between values and practice.

Sustained ethics education therefore depends on embedding feedback and improvement processes within routine institutional function. By positioning feedback and QI as ethical imperatives, the framework reframes professionalism and academic integrity as collective, evolving responsibilities shared across learners, educators, and organizations [43, 62]. This integrated feedback and quality improvement cycle is illustrated in Figure 3.

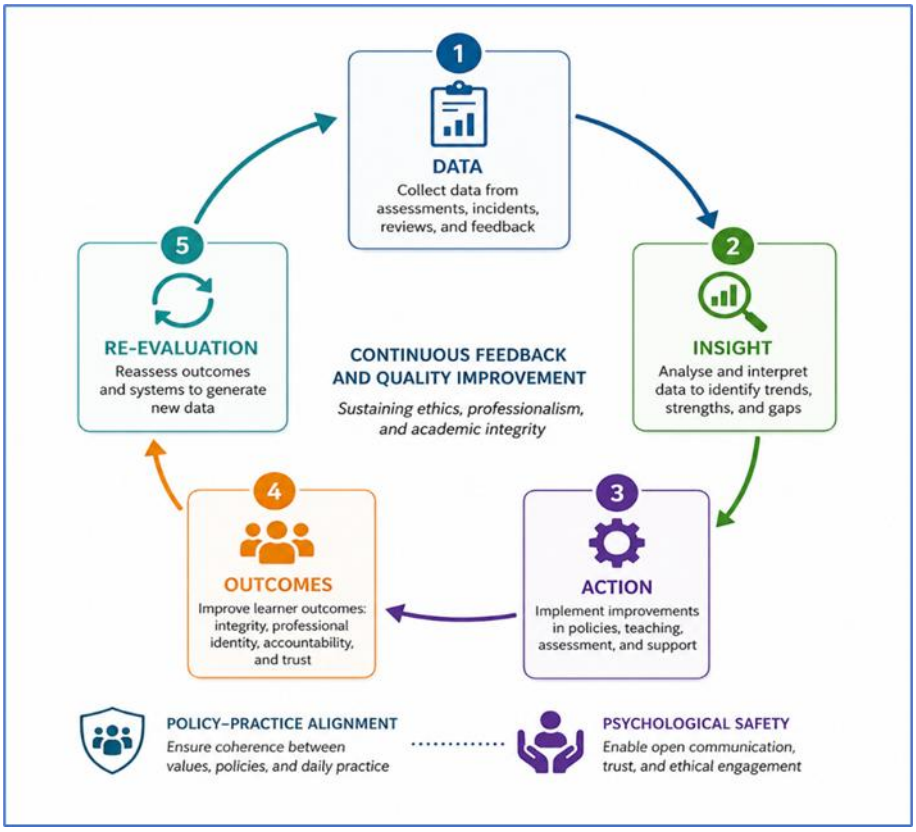


**Figure 3.** Continuous feedback and quality improvement loop in ethics and professionalism education. The figure illustrates a simplified systems-level feedback loop linking data, insight, action, outcomes, and re-evaluation. Data from assessments, integrity indicators, and stakeholder input are analysed to generate insights that inform institutional actions, including policy, teaching, and assessment reforms. These actions shape learner outcomes, which are continuously re-evaluated to generate new data. Policy–practice alignment and psychological safety underpin the cycle, enabling transparent feedback, institutional accountability, and sustained ethical development.

## 8. Implications for Medical Education Practice

The integrated conceptual framework has practical implications for curriculum design, faculty development, governance, and quality assurance. By positioning ethics, professionalism, and academic integrity as systemically embedded and developmentally constructed, the framework shifts attention from isolated, learner-centered interventions toward shared institutional responsibility [40, 43, 44]. It suggests that ethical practice is sustained not through individual effort alone, but through consistent alignment between structures, processes, and everyday educational experience.

### 8.1 Institutional Responsibility, Governance, and Policy Alignment

Ethical and professional conduct are more meaningfully understood as collective institutional responsibilities rather than solely learner attributes [13, 38, 40]. Organizational structures, incentives, and cultures shape what is feasible, rewarded, or discouraged in practice. For this reason, embedding ethical expectations within strategic planning and quality assurance processes becomes less an ideal and more a practical necessity [34, 43]. Alignment between governance, policy, and accreditation contributes to institutional credibility, but its value depends on how consistently policies are enacted. Accreditation frameworks that emphasize professionalism and ethical learning environments can support change, although their impact is often mediated by local implementation [2, 3].

In Saudi Arabia and the broader Gulf Cooperation Council context, rapid expansion in medical education creates both opportunity and risk. Growth, if not accompanied by coherent ethical integration, may lead to fragmentation. Conversely, aligning regulatory reforms with institutional practices offers a pathway toward sustaining

professional integrity alongside development [14, 18, 60]. However, achieving this alignment requires a critical shift toward greater administrative independence for educational institutions. Currently, rigid structures can constrain institutional leadership, limiting their flexibility to comprehensively evaluate and effectively manage human resources. To foster genuine accountability, institutions must be granted the autonomy necessary to take decisive action, particularly regarding the replacement of "toxic staff" who lack professionalism. Because such individuals can severely damage the ethical climate and pass on negative behaviors to learners through the hidden curriculum, empowering leadership to purify the educational environment is a prerequisite for maintaining psychological safety and supporting positive role modelling [60].

### 8.2 Curriculum Design, Assessment Reform, and Longitudinal Integration

Longitudinal integration of ethics and professionalism across the curriculum helps maintain continuity between foundational sciences, clinical training, and postgraduate development [2, 15, 39]. Educational approaches such as case-based learning, simulation, reflective practice, and interprofessional engagement provide opportunities for learners to encounter ethical reasoning within authentic contexts [35, 45, 68]. Assessment systems, however, often exert a stronger influence than formal curricula. High-stakes and competitive structures may unintentionally encourage short-term performance strategies at the expense of integrity, particularly when perceived as unfair [9, 10, 18]. In contrast, more transparent and developmental approaches—such as programmatic assessment—can reduce pressure while supporting ethical growth [39]. Methods including narrative evaluation, multisource feedback, and reflective portfolios offer more nuanced insights into professionalism, although they require careful implementation to maintain consistency and credibility [32, 47]. In culturally diverse settings, curricular design must remain attentive to local values while engaging with broader professional standards, recognizing that neither can be applied in isolation [14, 52, 60].

### 8.3 Faculty Development, Ethical Leadership, and Learning Environments

Faculty members remain central to the transmission of ethical and professional values. Their influence often lies less in formal teaching and more in everyday interactions, where learners observe how values are enacted in practice [33, 40]. Faculty development, particularly in areas such as feedback, supervision, and ethical facilitation, supports this role, although its effectiveness depends on sustained institutional commitment. Leadership also shapes the conditions under which ethical dialogue can occur. Transparent and consistent decision-making can strengthen trust, whereas perceived inconsistencies may undermine it [63]. Efforts to reduce hierarchical barriers and support psychological safety enable learners and faculty to engage more openly with ethical concerns [56].

The learning environment itself reflects the lived reality of institutional values. Regular evaluation, both quantitative and qualitative, can help identify areas of strength and tension [42, 43]. In more hierarchical or collectivist contexts, approaches such as mentorship, ethics rounds, and secure reporting mechanisms may offer culturally appropriate ways to support openness while maintaining respect for local norms [40, 65].

### 8.4 Feedback Systems, Quality Improvement, and Sustainable Institutional Change

Embedding ethics and professionalism within feedback and quality improvement processes allows institutions to respond to emerging challenges in a structured way [43, 64]. Data related to professionalism, academic integrity, and learner experience can provide useful signals, although interpretation requires attention to context and underlying causes [47, 64].

Feedback systems that are perceived as transparent and developmental are more likely to encourage engagement. When feedback is experienced as punitive or disconnected from action, its value diminishes [56]. Over time, consistent use of feedback within QI cycles can support gradual alignment between institutional intentions and everyday practice.

Sustaining ethical practice therefore depends less on discrete interventions and more on the routine integration of feedback, reflection, and adjustment. In this sense, professionalism and academic integrity are not fixed endpoints but evolving outcomes shaped through ongoing institutional effort [43, 64].

## 9. Implications for Research and Future Directions

The integrated conceptual framework provides a structured basis for theory-informed and context-sensitive research on ethics, professionalism, and academic integrity. By linking ethical principles with system-level determinants, educational processes, and learner outcomes, it offers a way to move beyond fragmented inquiry toward more coherent and cumulative understanding [43, 64]. At the same time, its usefulness will depend on how carefully it is applied and adapted across different institutional and cultural settings.

### 9.1 Strengthening Theory-Informed and Empirical Research

A substantial proportion of existing research in this area remains descriptive, often focusing on the prevalence of misconduct or learner perceptions without clear theoretical grounding. While such work is valuable, its explanatory power is limited when not linked to broader conceptual models. The present framework allows for more explicit formulation of relationships between system design, ethical decision-making, and learner behavior.

Future studies could, for example, examine how perceptions of fairness within assessment systems influence academic integrity, or how faculty role modelling contributes to professional identity formation through ethical decision-making processes [23, 54, 59]. Approaches that explicitly connect empirical findings to theory are more likely to support cumulative knowledge rather than isolated observations.

### 9.2 Methodological Approaches and Measurement Considerations

Given the complexity of ethical development, no single methodological approach is sufficient. Mixed methods design offers a more complete perspective, combining quantitative patterns with qualitative insights into context, meaning, and moral reasoning [15, 16]. Longitudinal studies are particularly valuable, as they allow examination of how professionalism and ethical identity evolve over time rather than at single points of measurement [2, 32].

Measurement remains a persistent challenge. Existing tools for assessing professionalism, ethical climate, and academic integrity often lack cross-cultural validation and may not capture the multidimensional nature of ethical development [43]. There is a need for instruments that integrate behavioral, cognitive, and developmental dimensions, while remaining sensitive to context.

At the same time, measurement should be approached with caution. Overreliance on incident-based metrics may oversimplify complex phenomena and introduce bias. Complementing quantitative indicators with qualitative sources, such as reflective portfolios, narrative feedback, and peer perspectives, can provide a more balanced understanding [43, 60].

### 9.3 Intervention Research, Program Evaluation, and System-Level Inquiry

The framework highlights multiple points at which educational and institutional interventions may be examined, including assessment design, faculty development, learning environments, and governance structures [40, 46]. Evaluating such interventions requires attention not only to learner-level outcomes but also to broader institutional and cultural shifts, which are often less visible but equally influential [43].

Quality improvement approaches, particularly those based on iterative cycles of implementation and feedback, align well with this perspective [65]. However, their effectiveness depends on careful interpretation of data and an understanding of local context. Research that integrates program evaluation with ongoing institutional learning may offer a more realistic pathway to improvement, even if findings are less easily generalizable.

### 9.4 Contextual, Cross-Cultural, and Regional Research Priorities

Ethics and professionalism are shaped by sociocultural norms, regulatory environments, and institutional histories. Comparative and cross-cultural research can therefore provide insight into how shared ethical principles are interpreted and enacted differently across settings [14, 34]. Such work is particularly relevant in increasingly globalized medical education systems, where international standards intersect with local values.

In Saudi Arabia and the broader Gulf Cooperation Council region, ongoing expansion in medical education creates both challenges and opportunities for research. Priority areas may include evaluation of learning environments and ethical climates in newer institutions [43], examination of professionalism within national licensing and assessment frameworks [9, 39], and identification of faculty development needs related to ethics and integrity [40]. The rapid integration of digital technologies also raises questions around academic integrity, artificial intelligence, and evolving forms of professional socialization [6, 10, 18].

Developing a sustainable research agenda in this context will likely require collaborative, multi-institutional approaches that balance methodological rigor with contextual sensitivity [14, 34]. Rather than seeking universal solutions, such work may be more useful in identifying patterns, tensions, and adaptable practices across settings.

## 10. Conclusion

Ethics, professionalism, and academic integrity constitute the moral and structural foundations of medical education. However, they have often been addressed as separate domains; taught as discrete topics, framed as individual virtues, or managed through regulatory mechanisms rather than understood as interdependent and institutionally embedded processes. The framework presented in this paper brings these dimensions into a more integrated perspective. It views ethics and professionalism not as static attributes but as processes shaped through the interaction of educational design, organizational culture, faculty practices, and assessment systems. Within this model, ethical decision-making serves as a central point of convergence, where values, structures, and lived experiences are translated into action and professional behavior.

By linking learner outcomes to institutional policies through feedback and quality improvement processes, the framework highlights the importance of alignment between intention and practice. It suggests that ethics education is less about isolated interventions and more about the consistency of everyday educational environments. In this sense, ethical development reflects not only what is taught, but how institutions function.

This perspective shifts attention from individual lapses toward the broader conditions that support or constrain ethical conduct. It invites educators and leaders to examine how governance, curriculum, assessment, and culture collectively shape professional formation. At the same time, it acknowledges that translating such alignment into practice requires sustained effort, contextual adaptation, and ongoing reflection.

As a conceptual model, the framework offers a structure for both educational practice and future research. Its value will ultimately depend on how it is tested, adapted, and refined across different settings. What remains consistent, however, is the underlying premise: the development of ethical and trustworthy physicians is closely linked to the integrity of the systems in which they are trained. Sustaining that integrity is therefore a shared and continuing responsibility within medical education.

**Acknowledgment:** The authors are thankful to the Deanship of Graduate Studies and Scientific Research at the University of Bisha for supporting this work through the Fast-Track Research Support Program.

**Declaration:** All the authors hereby declare that this is an original narrative review and has not been submitted for publication anywhere. They also declare that they qualify for the authorship, have reviewed and approved the manuscript for submission.

**Ethical approval:** The institutional ethical approval is not applicable.

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