

How Healthcare Ethics Education Changes Clinical Deliberation: A Realist Review of Learning Mechanisms, Supervisory Relationships, and Organizational Conditions Supporting Ethical Action

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Abstract

Healthcare ethics education is commonly evaluated through knowledge, moral sensitivity, confidence, or performance in educational exercises. These outcomes do not establish whether learning alters clinical deliberation when learners encounter hierarchy, uncertainty, competing obligations, time pressure, role modelling, or organizational constraints. A realist account is therefore needed to explain how educational resources interact with learner reasoning, supervision, and workplace conditions. To explain for whom, in what educational and clinical contexts, through which mechanisms, and under what supervisory and organizational conditions healthcare ethics education contributes to changes in clinical deliberation and ethically consequential action. A realist review was undertaken using iterative searching, theory development, relevance and rigour assessment, and context–mechanism–outcome analysis. Five targeted PubMed-domain searches were conducted on 22 September 2026 across ethics and bioethics education, moral and ethical sensitivity, simulation and reflective pedagogies, hidden curricula and professionalism, ethical climate, supervision, and realist health-professions education. The accessible search interface displayed 60 records; two duplicated records were removed, leaving 58 unique records, of which seven fell outside the 2018–2026 date window. **Figure 1** presents the documented search and date-screening stages through 51 date-eligible unique records. Analysis distinguished proximal educational change from persistence, supervised enactment, workplace transfer, and clinical action. Ethics education most consistently altered proximal deliberative resources when learners actively rehearsed ethical reasoning through simulation, debate, role play, structured reflection, or dilemma analysis. Effects were neither uniform nor necessarily durable. Programme responses depended on whether learners experienced psychological safety, credible supervision, structured feedback, time for interpretation, and opportunities to articulate competing reasons. Transfer into clinical action was further conditioned by ethical climate, role modelling, hierarchy, organizational permission, and whether learners could exercise newly developed capabilities without unacceptable interpersonal or institutional cost. Moral sensitivity, confidence, professional identity, and assessment performance functioned as intermediate indicators rather than equivalent measures of ethical action. Healthcare ethics education is most plausibly effective when educational resources activate reflective and relational learning mechanisms that are subsequently reinforced through credible supervision and organizational conditions that permit ethical reasoning to influence practice. Educational exposure alone is insufficient to establish durable change in clinical deliberation.

Keywords: Healthcare ethics education, Clinical deliberation, Realist review, Moral sensitivity, Clinical supervision, Ethical climate

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Introduction

Healthcare ethics education is expected to prepare clinicians to recognize ethically salient situations, articulate reasons, engage competing perspectives, and act responsibly under conditions that are rarely as controlled as classroom cases. The central educational

problem is therefore larger than acquisition of ethical vocabulary or successful completion of an assessment. Contemporary commentary has increasingly questioned whether ethics education is sufficiently connected to the collective and institutional circumstances in which ethical practice actually occurs [1]. Longitudinal curriculum evaluations likewise suggest that ethics learning becomes more meaningful when formal teaching is linked to clinical application and reflection rather than delivered as an isolated theoretical exercise [2].

Assessment complicates interpretation of educational effectiveness. Medical schools use heterogeneous approaches to assessing ethics and law, and the underlying construct is not reducible to a single objectively correct response [3]. Clinical reflection exercises can make empathy, inclusion, moral distress, and conflicting obligations visible to learners [4], but visibility is not equivalent to durable changes in practice. A learner may reason convincingly about a written scenario while remaining unable to articulate disagreement during a high-stakes clinical encounter. Conversely, a learner may develop context-sensitive practical judgment that is only imperfectly represented by conventional scores.

Simulation illustrates this distinction. In a 2026 mixed-method study of clerkship students, sequential standardized-patient ethics scenarios were associated with gains in ethical knowledge, sensitivity, vignette-based decision making, and confidence [5]. The qualitative findings also pointed to enactment, structured reasoning, voice, consensus building, feedback, and reflection as potentially important learning processes. Yet the authors did not demonstrate durable workplace transfer. Such evidence is useful because it shifts the explanatory question from whether simulation produces an immediate score change to what learners experience during simulation that might later influence deliberation. Clinical environments may then reinforce, redirect, or contradict formal teaching. Professional guidance has long described the hidden curriculum as a source of ethical and professional learning that can undermine explicitly taught norms [6]. Analyses of medical role modelling similarly show that learners encounter conduct and institutional practices that do not always align with formal professionalism teaching [7]. These experiences are not distributed uniformly. Hidden-curriculum exposures may be interpreted differently according to learner position and may contribute to morally injurious

experiences for some groups [8]. Learner-led approaches can also make otherwise tacit norms discussable, suggesting that the response to a problematic environment depends partly on whether learners possess legitimate routes to question what they observe [9].

Professional identity formation provides another potential bridge between education and practice. A recent scoping review described identity formation as a product of interacting individual, relational, educational, and contextual influences [10]. Identity may stabilize particular ethical commitments, but it should not be treated as proof that those commitments govern behaviour. The same caution applies to moral sensitivity. Nursing-education literature indicates that sensitivity to ethically salient features can develop through education and experience, yet definitions and measurement approaches vary substantially [11]. Sensitivity is thus better understood as one possible component of deliberative capability than as a terminal outcome.

The review therefore addressed a realist question: How, for whom, and under which learning, supervisory, and organizational conditions does healthcare ethics education contribute to changes in clinical deliberation and ethically consequential action? The analysis treated educational techniques as resources whose effects depend on what learners notice, infer, rehearse, value, and feel permitted to enact. It also examined rival explanations, including short-lived test effects, certainty seeking, identity conformity, unsupportive supervision, hostile hidden curricula, hierarchical silence, and lack of organizational permission. The objective was not to identify a single superior teaching method, but to explain the conditions under which educational experiences are translated—or fail to be translated—into clinical ethical practice.

Materials and Methods

A realist review design was selected because the literature concerns heterogeneous educational resources delivered to different learners in different clinical and organizational settings. Realist synthesis is particularly suited to questions in which an intervention does not act as an invariant causal input but instead provides resources that may activate different reasoning processes under different conditions. A realist synthesis of supervision training, for example, showed that educational effects depended on configurations of context, participant reasoning, and opportunity for

enactment [12]. Realist evaluation of supervision workshops likewise demonstrated that participants responded differently according to perceived relevance, credibility, usefulness, and the practical circumstances in which new supervisory practices could be used [13].

Search and evidence identification

Searches were executed on 22 September 2026 through five targeted PubMed-domain search routes. The concept blocks covered: healthcare ethics and bioethics education; moral and ethical sensitivity; simulation, debate, role play, reflection, and dilemma-based learning; hidden curriculum, professionalism, and ethical climate; and supervision, realist review, realist synthesis, and realist evaluation. Searches were iterative rather than restricted to one intervention label because programme-theory development required evidence about educational mechanisms, supervisory relationships, organizational conditions, transfer, persistence, and competing explanations.

The five searches displayed 60 records. Removing two duplicate presentations yielded 58 unique displayed records. Excluding seven records outside the 2018–2026 temporal boundary yielded 51 date-eligible unique records for relevance assessment. **Figure 1** traces these identification and date-screening stages. Methodological and contextual sources informed programme-theory development without being treated automatically as evidence that a particular ethics intervention changed clinical practice.

Extended supervision research was examined because temporal reinforcement and workplace opportunity may affect whether educational learning is enacted [14]. Evidence concerning practice-education facilitators was used to test the importance of credibility, accessibility, preparation, and local learning environment [15]. Realist work on person-centredness suggested that meaningful experience becomes educationally consequential when learners can connect that experience with explanatory theory and supported sense-making [16]. Other realist reviews in medical education demonstrated the value of examining how learner responses are generated by particular configurations rather than reducing educational programmes to lists of components [17].

Initial programme theory

The initial programme theory proposed that ethics education influences clinical deliberation only when an educational resource activates a relevant learner

mechanism and subsequent environments permit that mechanism to be rehearsed and used. Assessment was included as a contextual feature because assessment structures can change motivation and what learners treat as educationally consequential [18]. Analysis therefore distinguished the resource offered by an educational activity from the reasoning, emotion, expectation, or relational response that the activity triggered.

Qualitative realist analysis followed an iterative and retroductive logic. Candidate explanations were compared against supporting, contradictory, and context-dependent evidence rather than coded as independent themes. Contemporary methodological guidance emphasizes movement between data, theory, relevance, rigour, and configurational explanation in realist health-professions research [19]. Recent realist reviews further demonstrate that multiple programme theories may be required when an educational strategy acts through different mechanisms in different settings [20]. Faculty-development evidence also supports explicit attention to professional legitimacy, recognition, and institutional conditions when explaining whether learning becomes enacted practice [21].

Relevance concerned whether an evidence unit could inform the review question or test the programme theory. Rigour concerned whether the source provided a sufficiently credible basis for the particular inference being drawn. Evidence was not rejected solely because it was qualitative, context specific, or methodologically unlike another source. Instead, causal language was calibrated to the design. Experimental and quasi-experimental findings were used to examine educational change; qualitative evidence was used to identify reasoning and relational mechanisms; observational studies were used to identify associations and contextual patterns; and realist reviews were used to examine transfer and configurational explanations.

The initial theory generated six linked analytical questions: whether an educational resource created ethical salience; whether learners could articulate and test competing reasons; whether they could rehearse action; whether supervisors legitimized or discouraged that reasoning; whether organizational conditions made enactment feasible; and whether the effect persisted beyond the educational encounter.

Figure 1 presents the documented search and date-screening stages: 60 displayed records, two duplicate presentations, 58 unique records, seven outside the date window, and 51 date-eligible records.

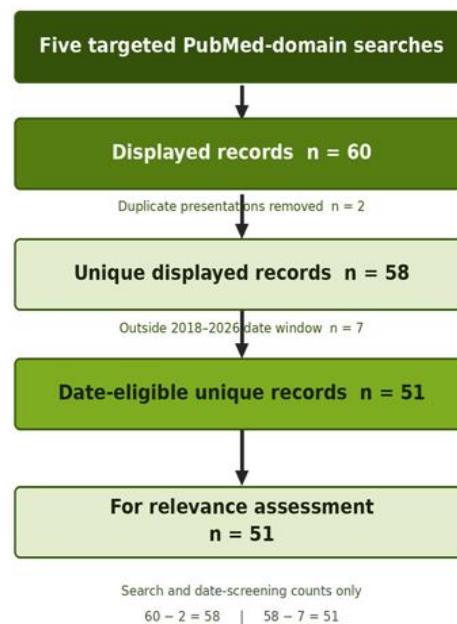


Figure 1. Documented search and date-screening stages

The initial explanatory structure derived from these procedures is summarized in **Table 1**.

Table 1. Initial programme-theory tests linking ethics-learning resources to possible clinical deliberation

Ethics-learning resource	Learner reasoning or response to test	Supervisory condition to examine	Organizational condition to examine	Provisional deliberative outcome	Disconfirming pattern sought
Structured ethical dilemma	Recognition that more than one defensible value is at stake	Supervisor permits uncertainty to be voiced	Time and forum for discussing disagreement	Greater differentiation of competing reasons	Rapid rule application without reconsideration
Simulation or role enactment	Anticipation of interpersonal consequences and perspective taking	Feedback is credible and psychologically safe	Rehearsed conduct resembles available clinical roles	Greater readiness to articulate ethical concern	Performance remains confined to simulated setting
Debate or counter-position exercise	Active engagement with reasons that challenge an initial view	Disagreement is treated as legitimate rather than disloyal	Hierarchy does not penalize reasoned challenge	More explicit justification and revision	Argument becomes competitive display rather than reflection
Reflective narrative or debrief	Reinterpretation of discomfort, uncertainty, or moral tension	Supervisor helps distinguish uncertainty from incompetence	Reflection has protected time and institutional legitimacy	More context-sensitive ethical interpretation	Discomfort produces avoidance or certainty seeking
Assessment and feedback	Attention to what counts as acceptable ethical reasoning	Feedback addresses reasoning rather than only correctness	Assessment priorities align with desired clinical conduct	Stronger connection between ethical reasoning and professional expectations	Learner optimizes for assessment without practice transfer
Repeated clinically situated practice	Development of confidence to use ethical reasoning during care	Supervisor models and authorizes enactment	Ethical climate permits speaking, escalation, and revision	Greater likelihood that capability becomes observable action	Capability is present but remains practically unusable

Results and Discussion

The evidence did not support a simple progression from ethics teaching to ethical action. Instead, four recurrent explanatory patterns emerged: educational methods

differed in the mechanisms they could plausibly activate; immediate improvement did not reliably establish persistence; supervision altered whether learners could enact developing capabilities; and organizational conditions affected whether ethical reasoning could influence real decisions.

Active learning altered different components of ethical capability

Debate-based teaching illustrates the multidimensionality of outcome response. In a quasi-experimental nursing study, debate-based ethics education improved moral judgment, whereas moral sensitivity did not show an equivalent intervention effect [22]. The finding challenges the assumption that ethical capability behaves as a single construct. An activity that trains articulation, justification, and counterargument may affect judgment without producing the same change in sensitivity to ethically salient features.

Temporal findings were similarly important. Problem-based learning and reflective practice were associated with initial improvements in moral sensitivity, but later follow-up showed attenuation [23]. Immediate post-course change therefore could not be interpreted as evidence of a stable disposition. This pattern supported the decision to treat persistence as a separate programme-theory question rather than as an implied consequence of successful instruction.

Simulation-based problem learning produced favourable changes in moral sensitivity, empathy, and critical thinking among nursing students [24]. These outcomes are consistent with the hypothesis that experiential methods can activate several proximal processes simultaneously: perspective taking, recognition of conflict, emotional engagement, and rehearsal of reasoning. However, none is identical to ethically consequential conduct in clinical practice.

Randomized evidence also resisted a simple active-versus-didactic dichotomy. Role play produced improvement across several ethics-related outcomes, yet

students receiving more conventional instruction also improved on some measures [25]. The relevant question was therefore not whether one method “worked” while another did not. More plausibly, different instructional formats provided different combinations of case exposure, explanation, enactment, feedback, and social interaction.

Newer technology-mediated teaching showed the same interpretive requirement. Learner-generated artificial-intelligence ethical dilemmas combined with role play were associated with gains in biomedical-ethics awareness, critical thinking, and empathy, while qualitative findings described emotional immersion and reflective engagement [26]. These data did not isolate artificial intelligence as the causal ingredient. Active authorship, scenario construction, role enactment, novelty, debriefing, and peer interaction were all plausible contributors.

A 2025 systematic review of interventions to strengthen ethical sensitivity in nursing students in Asia and the Middle East likewise found generally favourable findings for participatory and situational approaches, but substantial heterogeneity in interventions, outcome measures, and research designs limited stronger causal generalization [27]. Interactive ethics education among practicing nurses also produced favourable short-term changes in moral sensitivity [28], indicating that ethical development is not confined to pre-registration curricula. Curriculum design nevertheless determines what learners are given opportunities to practise. A multi-country workshop study involving professionals and patient representatives identified a broad range of ethics content considered important for undergraduate education [29]. Such content prioritization is valuable, but curriculum content alone does not specify how learners convert concepts into situated judgment. The synthesis therefore separated what is taught from what learners are required to do with what is taught.

These configurations are summarized in **Table 2**.

Table 2. Context–mechanism–outcome configurations linking ethics education to changes in deliberation

Educational or clinical context	Resource made available	Mechanism that may be activated	Deliberative consequence	Configuration that may weaken or reverse the effect
Protected simulation with credible debrief	Enacted ethical dilemma and feedback	Perspective taking, anticipation of consequences, rehearsal of voice	More explicit and context-sensitive reasoning	Simulation feels artificial, punitive, or disconnected from clinical authority
Debate with legitimate disagreement	Requirement to defend and revise reasons	Counter-reason engagement and metacognitive checking	Greater justification and willingness to reconsider	Learner treats debate as competitive performance

Reflective case or narrative work	Time and structure for interpreting moral discomfort	Meaning making and recognition of ambiguity	Greater tolerance of ethically relevant uncertainty	Reflection is rushed or discomfort is interpreted as personal inadequacy
Role play with psychologically safe participation	Embodied participation in conflicting roles	Emotional perspective taking and behavioural rehearsal	Greater readiness to articulate concern	Participation is performative or feedback lacks credibility
Learner-generated dilemma construction	Active authorship of ethically difficult scenarios	Ownership, salience, and critical interrogation of assumptions	Deeper engagement with competing values	Technology novelty displaces attention from ethical reasoning
Clinically situated ethics teaching	Real or realistic practice problems	Recognition that ethical reasoning belongs to ordinary care	Stronger connection between principle and practical judgment	Formal teaching conflicts with what the workplace rewards

Deliberative capability did not transfer automatically into clinical action

Observational evidence suggested that ethical decision-making ability is associated with more than prior course exposure. A national survey of senior nursing interns identified relationships involving educational experience, moral sensitivity, and contextual factors [30]. Because the design was cross-sectional, these relationships could not establish that education itself caused better decision making. They nevertheless supported a realist interpretation in which educational resources interact with learner characteristics and clinical environments.

The organizational environment became particularly important when ethical climate was considered. Among senior nursing interns, hospital ethical climate statistically mediated the association between moral sensitivity and ethical decision-making ability [31]. Temporal causality cannot be established from a cross-sectional mediation model, but the finding is theoretically consequential: the practical expression of sensitivity may depend on whether learners perceive that ethical issues can be raised, discussed, and acted upon.

Correlational evidence further showed that ethical sensitivity is related to perceived clinical decision-making competence while remaining distinct from it [32]. A learner can recognize an ethical problem yet feel unable to decide or act. This separation was reinforced by evidence connecting ethical decision-making competence with moral distress, protective factors, and resilience [33]. Ethical capability may therefore increase awareness of conflict without eliminating the emotional costs of working within constrained systems.

Transfer evidence from simulation research offered a further test of the programme theory. A 2026 realist review of simulated patients found that transfer into clinical practice depended on conditions including preparation, perceived realism, authenticity, spontaneity, psychological safety, and previous experience [34]. The educational encounter therefore provided resources, but whether those resources became usable in practice depended on how learners interpreted the experience and whether later settings offered comparable opportunities for enactment.

These findings led to a staged interpretation of transfer, shown in **Table 3**.

Table 3. Distinguishing educational acquisition from ethically consequential clinical transfer

Transfer stage	What may become observable	Evidence that remains insufficient at this stage	Principal failure mode	Stronger evidence of progression
Ethical salience	Learner notices value conflict or moral concern	Recognition alone	Salience without capacity to analyse	Learner differentiates competing obligations and stakeholders
Deliberative development	Learner articulates reasons and revises an initial view	Written or simulated reasoning alone	Competence remains assessment-bound	Similar reasoning appears across varied cases and over time
Behavioural rehearsal	Learner practises questioning, explanation, negotiation, or escalation	Successful simulation performance alone	Action depends on protected educational setting	Learner uses the behaviour under authentic interpersonal pressure
Supervised enactment	Learner raises and works through ethical concern during care	Single successful encounter	Supervisor-specific permission	Capability persists across supervisors and circumstances
Organizational authorization	Ethical reasoning can legitimately alter discussion or decision processes	Perceived ethical climate alone	Formal capability but practical silence	Learner can influence care without disproportionate interpersonal or institutional penalty

Stabilized ethical action	Deliberative habits recur in ordinary clinical work	Self-reported intention or confidence	Decay, conformity, competing workload, or hidden-curriculum reversal	Repeated context-sensitive reasoning linked to observable practice over time
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The combined Results therefore indicated that educational effects are best understood as conditional transitions rather than a single intervention outcome. Active methods can increase moral sensitivity, reasoning, empathy, confidence, or critical reflection, but these gains may diverge across constructs and decline over time. The clinically consequential transition occurs later, when developing capabilities encounter supervisors, role models, hierarchies, ethical climates, and institutional arrangements that determine whether reasoning can be voiced and used. The next section refines this pattern into a context–mechanism–outcome programme theory that distinguishes educational capability from supervised enactment and organizational permission.

Refined programme theory

The synthesis indicates that ethics education changes clinical deliberation through a sequence of contingent mechanisms rather than through educational exposure alone. The first requirement is acquisition of usable deliberative resources: learners must be able to recognize ethical salience, distinguish competing obligations, articulate reasons, consider other perspectives, and tolerate uncertainty long enough for reconsideration to occur. These capabilities become clinically relevant only when the practice environment gives learners opportunities to exercise them. Realist evidence from education for person-centred clinical practice similarly suggests that professional responsibility, assessment expectations, and workplace culture influence whether educational learning becomes routine behaviour [35].

A second mechanism concerns the interpretation of uncertainty. Clinical ethics education frequently introduces ambiguity deliberately, but ambiguity does not invariably produce reflection. Realist evaluation of behavioural-science education showed that narrative engagement, structured reflection, time, and productive discomfort could stimulate learning, while certainty-seeking operated as a competing response [36]. In ethics education, the same distinction explains why difficult cases may either deepen deliberation or prompt premature reliance on rules. Productive uncertainty

therefore requires sufficient psychological safety, explanatory support, and time for learners to treat discomfort as material for reasoning rather than as evidence of incompetence.

A third mechanism involves professional identity. Transformational learning can alter how clinicians understand their professional roles and integrate new perspectives into practice [37]. Within the present programme theory, identity is not treated as an outcome equivalent to ethical behaviour. It functions instead as a possible stabilizing mechanism: ethical reasoning is more likely to recur when learners come to regard reasoning, respectful challenge, and attention to competing values as legitimate features of competent clinical practice.

Interpretation must also account for measurement. Instruments used to assess ethical or moral sensitivity differ in construct coverage, reliability, and cultural applicability [38]. Apparent inconsistency across educational studies can therefore arise from genuine contextual variation, differences in activated mechanisms, or differences in what the instruments measure. Increased sensitivity, confidence, or assessment performance should consequently be interpreted as evidence about particular components of deliberative capability rather than as interchangeable indicators of ethical action.

Finally, clinical behaviour cannot be read independently of context. Professionalism scholarship has emphasized the continuing tension between observable behaviour, professional identity, and the meaning assigned to action in particular situations [39]. The same behaviour may reflect confidence, compliance, strategic silence, or genuine deliberative agreement depending on circumstances. The refined programme theory therefore locates ethical action at the intersection of learner capability, supervisory authorization, and organizational opportunity.

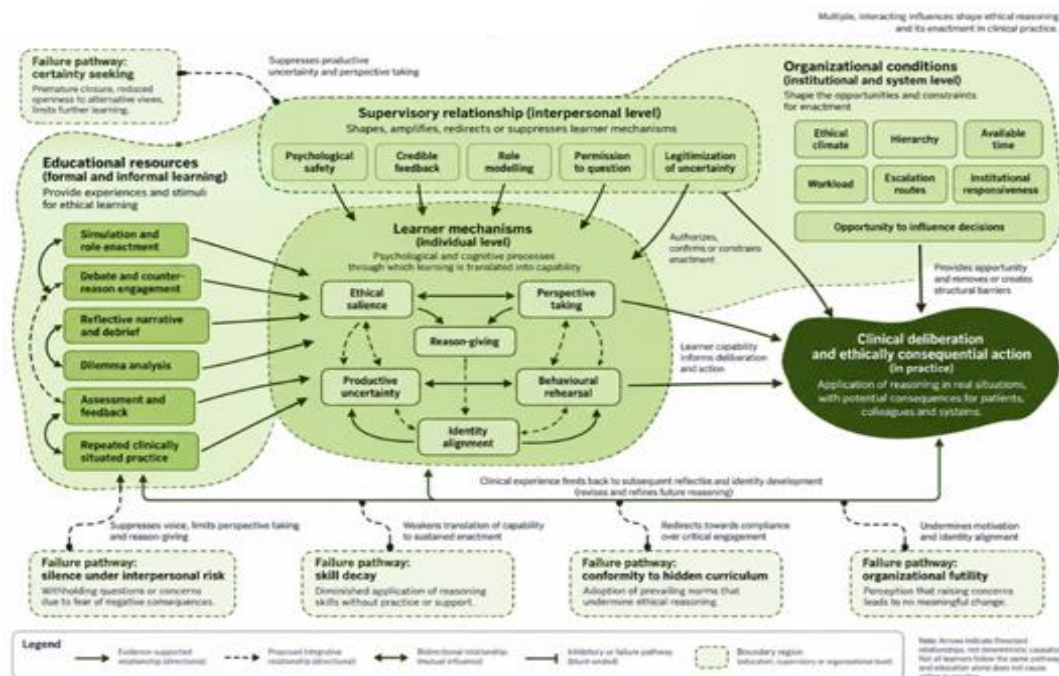
Table 4 states the resulting programme-theory configurations and the evidence patterns that would challenge them.

Table 4. Refined programme-theory configurations for transfer from ethics education to clinical ethical action

Configuration	Enabling context	Mechanism activated	Expected deliberative consequence	Competing or failure mechanism	Evidence that would challenge the configuration
Ethical salience becomes deliberation	Cases require genuine value comparison rather than rule recall	Learner recognizes competing obligations and searches for reasons	More differentiated ethical interpretation	Premature certainty	Learners identify issues but do not reconsider initial judgments
Deliberation becomes voiced concern	Supervisor treats questioning and uncertainty as legitimate	Psychological safety and perceived permission to speak	Ethical concerns are articulated during care	Anticipated interpersonal penalty	Reasoning remains private despite adequate knowledge
Rehearsal becomes clinical enactment	Educational task resembles credible clinical interaction	Behavioural readiness and perspective taking	Learner explains, questions, negotiates, or escalates appropriately	Simulation-bound performance	Gains disappear outside protected teaching
Capability becomes sustained practice	Repeated opportunities and credible feedback are available	Reinforcement and identity alignment	Deliberative habits recur across cases	Skill decay or conformity	Effects diminish rapidly after education
Sensitivity becomes decision influence	Ethical climate permits concerns to alter discussion	Expectation that reason-giving can matter	Ethical reasoning influences team deliberation	Organizational futility	Concerns are recognized but routinely disregarded
Ethical action remains revisable	Uncertainty is tolerated and counter-reasons can be expressed	Reflective revision rather than defensive certainty	Decisions remain open to justified reconsideration	Certainty seeking or hierarchical closure	Increased confidence produces inflexible rather than reflective judgment

The resulting theory is best represented as a cross-level configuration rather than a linear educational pipeline.

Figure 2 illustrates the relationships discussed above.

**Figure 2.** Final context-mechanism-outcome programme theory

This realist synthesis shifts the evaluative question in ethics education from whether teaching produces

improvement to what kind of improvement occurs, under what conditions, and whether it survives contact with

clinical practice. The reviewed evidence consistently supports the possibility of change in proximal capabilities, but it also demonstrates that different outcomes respond differently. Moral judgment may improve while sensitivity changes little; initial gains may attenuate; confidence may increase without observable influence on care. These distinctions matter because educational success can otherwise be overstated by treating all ethics-related outcomes as substitutes for clinical ethical action.

The programme theory also identifies supervision as a central transfer condition. Simulation and reflective learning can provide rehearsal, but authentic practice places learners in relationships where disagreement carries professional and interpersonal consequences. Evidence concerning clinical transfer indicates that realism, psychological safety, preparation, and credible facilitation affect whether learning remains usable outside protected educational settings [34]. Supervisors consequently do more than reinforce knowledge: they signal whether uncertainty can be voiced, whether challenge is legitimate, and whether ethical reasoning belongs within ordinary clinical work.

Organizational conditions extend this explanation beyond the learner-supervisor dyad. Ethical climate may influence whether moral sensitivity becomes decision-making capability [31], while realist evidence from other forms of health-professions education shows that workplace legitimacy and opportunity are important for translating learning into routine practice [35]. This helps explain a recurring apparent paradox: clinicians may possess ethical knowledge and recognize problematic situations while remaining unable to alter what happens. The relevant deficit may lie in permission, opportunity, hierarchy, or responsiveness rather than in educational capability itself.

The theory also guards against treating discomfort as uniformly desirable. Productive uncertainty requires supportive interpretation; otherwise ambiguity may activate certainty seeking, avoidance, conformity, or withdrawal [36]. Likewise, professional identity may consolidate ethical commitments, but identity formation can also accommodate existing institutional norms. Educational programmes should therefore be judged partly by whether they prepare learners to examine the norms they inherit rather than merely to fit comfortably within them.

For educators, the implication is that curriculum design should connect case analysis with behavioural rehearsal,

feedback, supervised clinical use, and opportunities for revisiting difficult encounters. For supervisors, ethical teaching requires visible practices of listening, reasoning, and legitimate disagreement. For organizations, educational investment is unlikely to produce its intended effect if hierarchy, workload, or escalation structures systematically prevent newly developed capabilities from influencing care.

Strengths and limitations

The principal strength of this review is its separation of educational exposure, proximal capability, supervised enactment, and organizationally permitted action. This prevented improvements in sensitivity, confidence, or assessment performance from being interpreted automatically as clinical transfer. The realist approach also preserved null findings, attenuation, competing mechanisms, and contextual variation rather than averaging them into a single effectiveness claim. Measurement heterogeneity was treated explicitly because ethical-sensitivity instruments vary in construct coverage and cultural applicability [38].

The substantive evidence relied heavily on proximal educational outcomes, self-report instruments, short follow-up periods, and observational designs. Direct evidence linking ethics education to repeated clinical behaviour or patient-level consequences was comparatively limited. Educational interventions were heterogeneous, and several influential contextual sources concerned supervision, person-centred education, professional identity, or transfer more broadly rather than ethics education alone. These sources strengthened programme-theory testing but cannot substitute for direct ethics-specific evidence.

Finally, many relationships in the refined theory remain configurational explanations rather than experimentally established causal pathways. Organizational permission, supervision, identity, and ethical climate are plausible and evidence-supported components of transfer, but their relative contribution is likely to differ across professions, institutions, cultural settings, and stages of training.

Conclusion

Healthcare ethics education can change clinical deliberation when it does more than transmit principles. Its effects are most plausible when learners actively practise recognizing ethical salience, articulating and revising reasons, considering competing perspectives, and rehearsing action under conditions that make

uncertainty discussable. These capabilities become clinically consequential only when supervisors legitimize their use and organizations provide realistic opportunities for ethical reasoning to influence decisions.

The strongest conclusion is therefore conditional: ethics education can contribute to ethical action, but educational capability alone is insufficient. Transfer depends on whether learning is reinforced through credible relationships, repeated use, and institutional environments in which ethically reasoned challenge is practically possible.

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