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Reflection and Ethical Identity Formation in Medical Education: A Focused Narrative Review

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Abstract

Professional identity formation is increasingly understood as a developmental process through which medical learners integrate professional values, responsibilities, relationships, and expectations with pre-existing aspects of self. Within this broader process, reflection is frequently used to help learners interpret morally significant experiences, examine tensions between personal commitments and professional norms, and develop a more deliberate ethical orientation. This focused narrative review critically synthesizes empirical, conceptual, and review-based scholarship on reflection and the ethical dimension of professional identity formation in medical education. The review does not treat ethical identity as a fixed endpoint or reflection as a single causal mechanism. Instead, it uses three interrelated domains—self-discovery, moral negotiation, and professional voice—as an interpretive framework for comparing the literature. These domains were first articulated in Al-Bader’s qualitative study of reflective learning and are employed here as a heuristic rather than as a validated developmental sequence. Across the reviewed scholarship, meaningful reflection is associated with increased awareness of personal values and emotional responses, more explicit

examination of conflicts between personal and professional commitments, and greater agency in articulating ethically defensible positions. These processes appear to be strengthened when reflection is longitudinal, dialogic, linked to authentic clinical or educational experience, and supported by mentoring or guided feedback. The literature also identifies important limitations: reflective activities can become performative when learners write for assessment rather than inquiry; the evidence base is heterogeneous and heavily qualitative; and most studies examine professional identity broadly rather than ethical identity as a distinct construct. The review therefore argues for a curriculum model in which reflection is embedded longitudinally within ethics and professionalism education, supported by educationally safe dialogue, and connected to observable professional practice. Future research should evaluate longitudinal change, cultural variation, assessment effects, and the relationship between reflective learning and actual ethical conduct.

Keywords: reflection, ethical identity, professional identity formation, medical education, moral development, reflective practice

1. INTRODUCTION

Medical education has traditionally taught ethics through principles, codes, cases, and expected standards of conduct. Such knowledge remains indispensable, but ethical knowledge and ethical identity are not identical. A learner may be able to state a professional principle correctly without yet having integrated that principle into the way he or she interprets clinical situations, responds to moral uncertainty, or acts when personal commitments conflict with professional expectations. This distinction has become increasingly important as medical education scholarship has shifted from viewing professionalism primarily as observable behavior toward examining professional identity formation (PIF), understood as the gradual integration of professional values, beliefs, roles, responsibilities, and relationships into an evolving sense of self [1–3].

In this review, *ethical identity* is used in a deliberately narrower sense than professional identity. It refers to the morally salient dimension of professional identity: how learners come to understand the values for which they are responsible, how they interpret tensions between personal and professional commitments, how they judge competing obligations, and how they develop the agency to justify and act upon ethically defensible positions. The distinction is conceptually important because most available studies examine PIF broadly rather than ethical identity as an independently defined or measured construct. The present review therefore draws on the wider PIF literature while asking a more focused question: what does the evidence suggest about the role of reflection in the formation of ethical self-understanding?

Reflection is repeatedly identified as one process through which medical learners make meaning from experience. Reflective writing, guided discussion, mentoring, and structured debriefing can create opportunities to revisit emotionally or ethically significant encounters, examine assumptions, compare personal reactions with professional expectations, and reconsider future action [4–6]. Reflection is therefore educationally relevant not because introspection is inherently virtuous, but because it can make otherwise implicit values, emotions, and judgments available for examination. When this examination is connected to professional standards, patient welfare, relationships, and accountability, reflection may contribute to the ethical dimension of identity formation.

At the same time, recent scholarship cautions against linear, universal, or overly prescriptive accounts of identity development. PIF is shaped by context, belonging, power, culture, prior identity, role models, institutional expectations, and opportunities for participation, and it cannot be reduced to a single pathway or a single educational technique [7, 8]. Nor should reflection be assumed to be effective merely because an activity is labeled “reflective.” Required writing can become performative, mentoring can reproduce dominant professional norms, and learners may withhold genuine uncertainty when reflection is closely tied to judgment or high-stakes assessment. A publishable account of reflection and ethical identity therefore requires both a developmental argument and a critical account of the conditions under which reflection is likely to be meaningful.

This article adopts a focused narrative-review approach. It is not a systematic review or scoping review and does not claim exhaustive retrieval of all literature on reflection, professionalism, moral development, or PIF. The literature assembled here was selected for its direct conceptual or empirical relevance to reflective learning, self-regulation, professional identity, mentoring, moral development, and medical education. Earlier work on self-regulated learning is retained to clarify the cognitive foundations of reflective practice, whereas contemporary medical-education scholarship is used to examine identity, values, agency, belonging, and relational learning [9–11]. Higher-level reviews are used to situate individual qualitative studies within the broader field [2, 3, 12, 13].

The synthesis uses three interrelated domains—self-discovery, moral negotiation, and professional voice—as an organizing framework. These domains were initially articulated in Al-Bader’s qualitative study of medical students’ reflective learning [14]. They are used here as an interpretive heuristic rather than as three validated stages that all learners necessarily follow in sequence. The central argument is therefore deliberately modest: reflection may contribute to ethical identity when it helps learners recognize morally relevant aspects of self, examine tensions between personal and professional commitments, and develop responsible agency in articulating and enacting ethical positions. The review evaluates how far the wider literature supports that interpretation, where the evidence remains limited, and what the synthesis implies for curriculum design and future research.

2. NARRATIVE SYNTHESIS

Early theories of self-regulated learning focused primarily on metacognition, performance monitoring, strategic adaptation, and learners’ capacity to evaluate and regulate their own learning [9, 10]. In medical education, Sanders and Cleary [11] applied self-regulation theory to academic and clinical performance, emphasizing goal setting, strategic action, monitoring, feedback, and adaptation. These frameworks remain relevant because reflection requires learners to notice and interpret their own thinking. However, cognitive self-monitoring alone does not explain how learners integrate emotions, values, social expectations, cultural commitments, and professional obligations into an emerging sense of self.

The PIF literature extends the question from “How am I learning?” to “Who am I becoming within this profession?” Wilson and colleagues [1] argued that professional identity is central to medical education and is shaped through experience,

role models, relationships, communities, and reflection. Sarraf-Yazdi and colleagues' scoping review similarly showed that PIF develops through interactions between pre-existing personal identities and social, educational, and professional expectations [2]. Their later theory-informed work further emphasized the conceptual complexity of how learners come to think, act, and feel like physicians [3]. Sternszus and colleagues [7] sharpen this view by emphasizing being, becoming, belonging, and learner agency, while Varpio and colleagues [8] caution that common journey metaphors can make identity formation appear more orderly and progressive than the evidence warrants.

Table 1 summarizes selected sources that most directly inform the present synthesis.

Table 1. *Selected literature informing the focused narrative review*

Source	Design or scope	Contribution to the present synthesis
Wong and Trollope-Kumar [4]	Longitudinal qualitative analysis of medical-student reflections	Demonstrates the iterative and socially influenced nature of PIF and the usefulness of reflection for examining change over time.
Al-Bader [14]	Qualitative study of reflective learning in medical ethics	Provides the three organizing domains—self-discovery, moral negotiation, and professional voice—used as a heuristic in this review.
Heydari and Beigzadeh [5]	Qualitative content-analysis study	Links reflection with self-awareness, professional development, self-directed learning, and the educational culture surrounding reflection.
Avargil et al. [6]	Longitudinal descriptive case study	Shows how reflective expressions reveal emotions, cultural beliefs, empathy, decision making, and changing aspects of professional identity.
Sarraf-Yazdi et al. [2, 3]	Scoping and theory-informed reviews	Establish PIF as contextual, relational, and shaped by interactions between pre-existing identity and professional expectations.
Sternszus et al. [7]	Conceptual perspective	Emphasizes agency, belonging, and critical engagement with professional norms rather than passive socialization.
Krishna et al. [13]	Systematic review of mentoring and PIF	Supports the importance of relational and mentoring contexts in professional identity development.

A recurring pattern in the empirical literature is that meaningful reflection requires a shift from producing an acceptable academic response toward examining one's actual reactions. In Al-Bader's qualitative study, students initially described reflective writing as a task to complete correctly, but some later used it to identify patterns in their emotional and moral responses to ethically charged scenarios [14]. Heydari and Beigzadeh likewise found that students associated reflection with self-awareness, self-directed learning, professional commitment, and a deeper understanding of the meaning of their behavior and relationships [5]. These findings suggest that reflection becomes educationally significant when it moves beyond retrospective description and creates a space in which learners can inspect how they are interpreting an experience.

This process can be understood as ethical self-discovery when the object of reflection is not simply performance but the learner's values, assumptions, discomfort, loyalties, intuitions, and emotional responses. Avargil and colleagues found that reflective expressions included emotions, cultural beliefs, decision-making processes, empathy development, and challenges arising during clinical rotations [6]. Wong and Trollope-Kumar similarly demonstrated that reflection can reveal how prior experience, patient encounters, role models, curriculum, and social expectations interact over time in the formation of professional identity [4]. The educational significance of this domain is not that emotion itself guarantees ethical insight. Rather, reflection can make emotional and moral reactions available for scrutiny. A learner who can identify why a situation evokes fear, resistance, loyalty, shame, anger, or moral discomfort is better positioned to ask whether that response reflects a defensible value, an unexamined assumption, a cultural commitment, a power relationship, or a genuine professional concern.

Self-discovery therefore supplies material for more complex ethical reasoning, but it is insufficient by itself. Reflection can become self-absorbed if it remains detached from patients, colleagues, evidence, professional standards, and the social consequences of clinical decisions. Ethical identity requires movement between inward examination and outward accountability. This is one reason why the relational and contextual elements emphasized in contemporary PIF literature are important: the self being formed is not an isolated self but one that must function within relationships of trust, vulnerability, authority, and responsibility [2, 7].

A second recurring domain concerns situations in which learners' existing beliefs and identities encounter professional norms that are not immediately harmonious with them. Al-Bader [14] describes students reflecting on tensions between cultural or religious commitments and ethical frameworks encountered in formal teaching. Such tensions are not exceptional within PIF. Sarraf-Yazdi and colleagues identified conflict between personal values and broader professional identity as a recognized challenge in medical training and emphasized the need for support that allows learners to integrate personal and professional identities without assuming that one must simply erase the other [2].

Reflection may be especially useful in these circumstances because it can slow the movement from discomfort to premature resolution. Instead of requiring the learner either to abandon a personal commitment or to reject a professional

norm, structured reflection can invite examination of the reasons, responsibilities, relationships, consequences, and power structures on both sides. Sternszus and colleagues' emphasis on agency and critical engagement with professional norms is relevant here: healthy PIF should not require passive conformity to whatever norms happen to dominate a local institutional culture [7]. Ethical identity formation therefore includes learning when professional expectations deserve endorsement, when they require contextual interpretation, and when they may themselves warrant critical examination.

This point also clarifies why ethical identity should not be equated with compliance. A learner who follows a rule solely because an authority demands it may display appropriate behavior without having developed a stable or intelligible ethical position. By contrast, a learner who can explain how a professional obligation relates to patient welfare, respect, justice, trust, accountability, or another defensible moral concern has begun to integrate that obligation into a personally meaningful framework. Reflection may support such integration, but the reviewed literature does not establish that reflection alone is sufficient to resolve complex value conflict. Ethical judgment also depends on knowledge, dialogue, role modeling, institutional culture, supervision, and repeated experience.

The third domain is the movement from dependence on authoritative answers toward greater ownership of ethical reasoning. Al-Bader [14] reports students who increasingly articulated and defended ethical positions in their own terms rather than simply searching for the answer expected by the instructor. Wong and Trollope-Kumar's description of "learning to become" similarly highlights the gradual and iterative construction of identity through reflection on experience [4]. Professional voice, in this context, refers not simply to confidence but to the capacity to articulate a position, provide reasons for it, remain open to revision, and accept responsibility for professional judgment.

This interpretation aligns with contemporary accounts of PIF that emphasize agency and belonging rather than passive socialization [7]. It also helps explain why reflection is often strengthened by dialogue. Krishna and colleagues' systematic review suggests that mentoring relationships can shape how learners think, feel, and act as professionals [13]. The development of ethical voice may therefore depend not only on private writing but also on relational settings in which students can test interpretations, encounter disagreement, receive feedback, and observe how experienced clinicians reason through uncertainty. Dialogic reflection can expose blind spots that private reflection may leave untouched and can help learners distinguish moral conviction from unexamined certainty.

The relational dimension also protects reflection from becoming purely self-referential. Ethical practice is accountable to patients, families, colleagues, institutions, and society. A professional voice becomes educationally meaningful when it develops through engagement with these relationships and when the learner understands that being able to defend a position is not the same as being beyond challenge. Mature ethical agency therefore includes both authorship and revisability: the capacity to take responsibility for a judgment while remaining responsive to evidence, competing perspectives, and the legitimate claims of others.

Taken together, the three domains are better understood as interacting processes than as successive stages. Self-discovery can reopen after a new clinical encounter; moral negotiation may recur whenever cultural, institutional, or professional expectations change; and professional voice can be strong in one area while remaining tentative in another. The value of the framework lies in making these forms of identity work visible, not in assigning learners to fixed developmental levels. This recursive interpretation is more consistent with current PIF scholarship and avoids implying that identity formation follows a uniform trajectory [7, 8].

3. DISCUSSION

The literature reviewed here supports a view of reflection as a mediating educational practice rather than as an isolated intervention or a universal mechanism. Reflection can connect experience with interpretation, interpretation with value clarification, and value clarification with professional agency. It can help learners notice what matters to them, identify where their values are in tension with professional expectations, and rehearse the reasoning through which they take responsibility for a position. Yet the evidence remains stronger for describing these processes than for demonstrating that reflection causes durable ethical behavior.

This distinction is important because the outcomes most often reported in the literature are reflective narratives, perceived self-awareness, identity language, or qualitative accounts of development. These outcomes are educationally meaningful, but they are not equivalent to observed ethical conduct. A learner may write insightfully and still act poorly under pressure, just as a learner who writes less fluently may nevertheless behave with integrity in practice. For this reason, reflective curricula should not treat the quality of reflective prose as a proxy for moral worth. Reflection should be connected, where possible, to case discussion, feedback, patient communication, teamwork, professional behavior, and longitudinal observation.

A further implication concerns the risk of performative reflection. The finding that students may initially write what they believe instructors want to read [14] demonstrates a structural tension within mandatory reflective education. If learners believe that honest uncertainty, dissent, emotional discomfort, or morally complex reactions will be penalized, reflective assignments can reward conformity rather than inquiry. The problem is intensified when highly personal reflection is graded

for content rather than for engagement with the reflective process. Programs therefore need to distinguish developmental reflection from surveillance and to make clear what aspects of reflective work are being assessed. Educationally, it is more defensible to evaluate the quality of reasoning, attention to multiple perspectives, responsiveness to feedback, and capacity for reconsideration than to reward agreement with a preferred moral vocabulary.

Several curriculum principles follow from the synthesis. First, reflection should be longitudinal rather than episodic. One-off assignments provide only a narrow opportunity to notice change over time, whereas recurring reflection allows learners to revisit earlier assumptions and recognize continuity or change in their reasoning. Longitudinal portfolios, recurring small-group dialogue, and repeated mentor conversations are more consistent with the iterative character of PIF described by Wong and Trollope-Kumar [4] and with evidence-informed approaches to PIF education [15].

Second, reflection should be guided but not over-scripted. Sandars [16] emphasized the deliberate support of self-regulated learning, while Fler and colleagues [15] argue for explicit educational approaches to PIF. Prompts can help learners move beyond description by asking what mattered, why it mattered, which assumptions were activated, whose perspectives were missing, what professional obligations were implicated, and how the learner might act differently in the future. At the same time, excessive prescription risks turning reflection into another exercise in producing institutionally acceptable language. The aim should be disciplined openness rather than a predetermined answer.

Third, reflection should be relational. Mentoring, facilitated peer dialogue, and faculty-supported discussion allow learners to test their interpretations against perspectives other than their own [13]. Rath's multi-layered framework likewise emphasizes educational and reflective practice across multiple levels rather than reliance on a single method [17]. Individual writing can remain valuable, particularly for initial sense-making, but dialogue provides opportunities for challenge, clarification, and perspective-taking. In ethics education, this is especially important because moral reasoning often depends on understanding how the same situation is experienced differently by patients, families, colleagues, and communities.

Fourth, the learning environment matters. Heydari and Beigzadeh found that organizational climate, educational structure, and trust between students and teachers can support or hinder reflection [5]. Programs seeking authentic reflection should therefore consider confidentiality, assessment practices, faculty behavior, psychological safety, and the distinction between developmental feedback and punitive evaluation. Learners are unlikely to explore morally difficult experiences honestly if reflection is experienced primarily as a mechanism of judgment. Faculty development is consequently part of reflective curriculum design: educators need skills in listening, questioning, responding to vulnerability, and challenging reasoning without humiliating the learner.

Fifth, reflection should remain connected to action and responsibility. Lawson and colleagues' work on professional identity within a structured health-systems program illustrates the value of linking identity-oriented learning with participation and responsibility in a wider professional context [18]. Ethical identity is not established by self-description alone. Reflective activity becomes more educationally credible when learners can connect insight to future behavior, test revised approaches in practice, receive feedback, and return to reflection with new evidence about the consequences of their actions.

The synthesis also has implications for the conceptual use of *ethical identity*. Because the term is not consistently operationalized across the literature, it should be used cautiously. The present review treats ethical identity as the morally salient dimension of PIF rather than as a separate, validated psychological construct. This framing makes it possible to analyze value integration, moral agency, and reflective meaning-making without overstating the existence of a distinct measurable entity. It also keeps the concept connected to the wider literature on socialization, belonging, agency, and professional formation.

This review has several limitations. First, it is a focused narrative review rather than a systematic or scoping review; study identification was not based on a reproducible comprehensive search strategy, and the synthesis should not be interpreted as an exhaustive account of the field. Second, the organizing framework of self-discovery, moral negotiation, and professional voice originates in Al-Bader's qualitative study [14]. The present review examines the extent to which broader literature converges with that framework, but it does not independently validate the three domains as universal constructs or developmental stages. The possibility of confirmation bias therefore needs to be acknowledged explicitly: using a framework derived from the author's earlier work may increase sensitivity to convergent findings while making discrepant patterns less visible.

Third, much of the literature concerns PIF rather than ethical identity specifically. Ethical identity is therefore interpreted here as a morally salient dimension of PIF rather than as a uniformly defined or directly measured outcome. Fourth, many empirical studies are qualitative, single-site, or based on relatively small samples. Such studies are valuable for understanding process and meaning but provide limited evidence about prevalence, comparative effectiveness, or causality. Mount and colleagues' critical review further illustrates the conceptual diversity of interventions labeled as PIF support [12].

Fifth, reflective practice is culturally situated. Conceptions of autonomy, family responsibility, hierarchy, professional

authority, religion, moral obligation, and appropriate emotional disclosure vary across educational and social settings. A reflective practice that feels supportive in one context may feel intrusive, culturally discordant, or professionally risky in another. Future research should therefore examine whether reflective approaches operate differently across cultural and institutional contexts rather than assuming a single normative model of ethical identity.

Longitudinal, multi-institutional research is particularly needed. Future studies should combine qualitative accounts of meaning-making with repeated measures of moral reasoning, professional values, belonging, well-being, and observed behavior. Zielina and colleagues' work on moral competence regression highlights the importance of examining change over time rather than assuming that ethical development is automatically progressive [19]. Research should also compare different forms of reflection—private writing, facilitated groups, mentoring, narrative portfolios, and structured debriefing—and examine how assessment practices influence authenticity. Finally, studies should investigate whether changes in reflective reasoning are associated with observable professional conduct in ethically demanding situations. This would move the field beyond demonstrating that learners can describe identity development toward understanding whether reflective education contributes to how they actually practice.

4. CONCLUSION

Reflection appears to play an important, but not exclusive, role in the ethical dimension of professional identity formation in medical education. Across qualitative, conceptual, and review-based scholarship, reflective practice is associated with three interrelated forms of identity work: recognizing one's own values and emotional responses, negotiating tensions between personal commitments and professional expectations, and developing the agency to articulate and revise ethically responsible positions. These domains are best understood as recursive and context-dependent rather than as a universal developmental sequence.

The principal educational implication is not simply that students should be assigned reflective writing. Reflection is more likely to contribute meaningfully to ethical identity when it is longitudinal, guided without being over-scripted, relational, connected to authentic experience, and situated within a learning environment that permits honest uncertainty and respectful disagreement. It should also remain connected to action, feedback, and professional accountability rather than being treated as an end in itself.

The current evidence supports reflection as a plausible and educationally valuable practice for identity-oriented learning, while also requiring caution. The literature does not establish reflection as the sole cause of ethical development, and reflective eloquence should not be confused with ethical conduct. Stronger longitudinal, cross-cultural, and behaviorally grounded research is needed to determine which forms of reflection are most effective, for whom, under what conditions, and with what consequences for professional practice.

AUTHOR CONTRIBUTION

The author conceived the review, synthesized the literature, prepared the manuscript, critically revised its content, and approved the final version.

CONFLICTS OF INTEREST

The author declares no conflicts of interest.

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DATA AVAILABILITY

No new datasets were generated for this narrative review. The evidence discussed in the manuscript is drawn from the published sources cited in the reference list.

DECLARATION OF GENERATIVE AI AND AI-ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During preparation of the manuscript, the author used ChatGPT to support language editing, structural refinement, and readability. The author subsequently reviewed and revised the manuscript and takes full responsibility for the accuracy, integrity, interpretation, and final content of the work.

REFERENCES

- [1] Wilson, Ian, et al. "Professional Identity in Medical Students: Pedagogical Challenges to Medical Education." *Teaching and Learning in Medicine*, vol. 25, no. 4, 2013, pp. 369–373.
- [2] Sarraf-Yazdi, Shiva, et al. "A Scoping Review of Professional Identity Formation in Undergraduate Medical Education." *Journal of General Internal Medicine*, vol. 36, no. 11, 2021, pp. 3511–3521.
- [3] Sarraf-Yazdi, Shiva, et al. "A Scoping Review and Theory-Informed Conceptual Model of Professional Identity Formation in Medical Education." *Medical Education*, vol. 58, no. 10, 2024, pp. 1151–1165.
- [4] Wong, Anne, and Karen Trollope-Kumar. "Reflections: An Inquiry into Medical Students' Professional Identity Formation." *Medical Education*, vol. 48, no. 5, 2014, pp. 489–501.
- [5] Heydari, Sara, and Amin Beigzadeh. "Medical Students' Perspectives of Reflection for Their Professional Development." *BMC Medical Education*, vol. 24, no. 1, 2024, article 1399.
- [6] Avargil, Shirly, et al. "Exploring Aspects of Medical Students' Professional Identity through Their Reflective Expressions." *BMC Medical Education*, vol. 25, no. 1, 2025, article 1111.
- [7] Sternszus, Robert, et al. "Being, Becoming, and Belonging: Reconceptualizing Professional Identity Formation in Medicine." *Frontiers in Medicine*, vol. 11, 2024, article 1438082.
- [8] Varpio, Lara, et al. "Professional Identity Formation Metaphors: Old Problems and New Promises." *Perspectives on Medical Education*, vol. 14, no. 1, 2025, pp. 219–229.
- [9] Zimmerman, Barry J. "Becoming a Self-Regulated Learner: Which Are the Key Subprocesses?" *Contemporary Educational Psychology*, vol. 11, no. 4, 1986, pp. 307–313.
- [10] Hofer, Barbara K., and Shirley L. Yu. "Teaching Self-Regulated Learning through a 'Learning to Learn' Course." *Teaching of Psychology*, vol. 30, no. 1, 2003, pp. 30–33.
- [11] Sandars, John, and Timothy J. Cleary. "Self-Regulation Theory: Applications to Medical Education: AMEE Guide No. 58." *Medical Teacher*, vol. 33, no. 11, 2011, pp. 875–886.
- [12] Mount, George R., et al. "A Critical Review of Professional Identity Formation Interventions in Medical Education." *Academic Medicine*, vol. 97, no. 11S, 2022, pp. S96–S106.
- [13] Krishna, Lalit Kumar Radha, et al. "The Impact of Mentoring Relationships on Professional Identity Formation in Medical Education: A Systematic Review." *BMC Medical Education*, vol. 25, no. 1, 2025, article 576.
- [14] Al-Bader, Abdullah bin Abdulrahman. "From Reflection to Responsibility: How Medical Students Construct Ethical Identity through Reflective Learning." *Veredas do Direito*, vol. 22, 2025, article e223738.
- [15] Flee, Joke, et al. "An Evidence-Informed Pedagogical Approach to Support Professional Identity Formation in Medical Students: AMEE Guide No. 171." *Medical Teacher*, vol. 47, no. 4, 2025, pp. 580–588.
- [16] Sandars, John. "Pause 2 Learn: Developing Self-Regulated Learning." *Medical Education*, vol. 44, no. 11, 2010, pp. 1122–1123.
- [17] Rath, Avita. "Enhancing Professional Identity Formation in Health Professions: A Multi-Layered Framework for Educational and Reflective Practice." *Medical Teacher*, vol. 47, no. 6, 2025, pp. 943–945.
- [18] Lawson, Luan, et al. "Creating Health Systems Citizens: Enhanced Professional Identity Formation through a Para-Curricular Distinction Track in Health Systems Transformation and Leadership." *BMC Medical Education*, vol. 25, no. 1, 2025, article 703.
- [19] Zielina, Martin, et al. "Exploring Moral Competence Regression: A Narrative Approach in Medical Ethics Education for Medical Students." *BMC Medical Ethics*, vol. 25, no. 1, 2024, article 73.