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From compliance to commitment: supporting autonomous growth in competency-based medical education

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Abstract

Competency-based medical education (CBME) aims to modernize postgraduate training through developmental, learner-centered assessment. However, many residents still experience the process as procedural and detached from meaningful growth. Using self-determination theory, the authors examine how current CBME practices often undermine residents' needs for autonomy, competence, and relatedness, producing superficial compliance rather than internalization and authentic commitment. Beyond structural critique, they highlight agentic engagement—residents' proactive efforts to "pull" autonomy support and shape feedback—as an underused but essential lever for revitalizing CBME. Field notes and entrustable professional activities can serve as coaching tools rather than bureaucratic artifacts but only if situated within autonomy-supportive dialogue, trusting relationships, and competence-oriented feedback. Drawing from self-determination theory research, the authors outline evidence-based, need-supportive strategies for embedding CBME practices into routine workflows. Collectively, the recommendations offer educators a pragmatic guide for aligning assessment culture with resident motivation, professional identity formation, and well-being. Without motivational alignment, CBME risks remaining an exercise in form over substance.

Keywords competency-based medical education, self-determination theory, resident motivation, feedback, assessment culture

Competency-based medical education (CBME) promised a shift from time to outcomes and from judgment to coaching. However, many residents experience the system as transactional rather than developmental. This article uses self-determination theory (SDT) to explain that gap and to offer practical strategies for aligning CBME with motivation, identity formation, and well-being. As clinician-educators working across Canadian and US postgraduate medical education, our perspectives are shaped by direct involvement in CBME implementation, faculty development, and learner coaching. A.N. is a family physician, clinical assistant professor, and researcher focused on motivation, physician well-being, and clinical learning environments. R.S. is a family physician, associate program director, and curriculum leader in resident assessment. G.G. is a senior leader overseeing system-wide CBME implementation. These roles ground our manuscript in the lived experience of CBME, the motivational dynamics that residents encounter, and the practical strategies that faculty can apply.

When good design doesn't feel good

Competency-based medical education represents one of the most ambitious reforms in postgraduate training. It seeks to replace time-based advancement and episodic judgment with outcomes-based, developmental progression.[1] National implementations include Competence by Design in Canada and the Milestones framework in the United States, among others. Competency-based medical education structures evaluation around entrustable professional activities (EPAs), frequent low-stakes field notes, and staged progressions of supervision. Entrustable professional activities are defined units of professional work that can be observed, assessed, and eventually entrusted to a learner once competence is demonstrated.[2] Field notes are short narrative records of observed performance intended to anchor timely feedback in real clinical encounters.[3] Together, these

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tools were designed to shift assessment toward coaching, reflection, and professional identity formation.

However, nearly a decade into implementation, practice has often drifted from intent.[4] Residents frequently describe CBME as fragmented, performative, and burdensome.[5] Rather than empowering, feedback can feel like another bureaucratic hoop.[6] This tension—between CBME as imagined (a coherent developmental system) and CBME as lived (an exercise in compliance)—raises critical questions for residents, faculty, and programs: Why have field notes, originally conceived as springboards for formative dialogue, become symbols of quota-filling?[4] Why do some residents actively seek assessments while others disengage?[7] And most importantly, how can programs help learners internalize CBME's goals, not just for them, but also for program directors and competence committees who rely on these same tools for high-stakes decisions?

By internalization, we mean the process by which residents adopt assessment practices as personally meaningful and aligned with their growth, rather than complying superficially. Self-determination theory provides a powerful lens for understanding this process because it is empirically validated across cultures, explains with precision how assessment practices influence motivation, and offers educators practical, evidence-based strategies to improve learning environments.[8] It clarifies why CBME sometimes fosters authentic commitment and other times erodes it.[9] We outline the problem with current CBME implementation, show how SDT explains these dynamics, and offer practical strategies for programs and faculty to create more motivating, learner-centered assessment cultures.

The problem with current implementation

Although CBME aspires to formative, learner-centered assessment, residents frequently experience it otherwise. Both EPAs and field notes are intended to anchor feedback in real clinical encounters. However, in practice, they are often treated as transactional artifacts—evidence for accreditation rather than coaching tools.[10] Many residents describe field notes as written haphazardly, by supervisors they barely know, with feedback that is generic or delayed.[11] Prior work has also shown that EPAs, when used consistently and with clear entrustment decisions, can help inform competency judgments, but only if applied as intended rather than as bureaucratic artifacts.[12] The result is variable engagement: some residents use feedback for growth, others comply minimally, and many feel the burden of tracking their own progress has shifted to them.[11]

This variability appears to be widespread. Although EPAs and field notes are now embedded across most residency programs, their frequency and quality differ significantly by specialty, training site, and program size.[7] In some contexts, they serve as meaningful vehicles for dialogue; in others, they are reduced to box-checking exercises.

Further compounding the problem, feedback is often perceived as summative rather than developmental, especially when documentation is linked to promotion decisions.[13] Even when feedback is well-intentioned, fragmented supervision and limited continuity hinder trust, undermining the conditions necessary for effective coaching and professional growth.[14]

In short, the promise of CBME (growth-oriented assessment) and the reality residents encounter (burdensome, fragmented, and summative) remain misaligned. These gaps invite a motivational explanation and prepare the ground for SDT as an organizing framework.

A motivational lens: what SDT adds to understanding CBME

Self-determination theory can serve as a central framework for interpreting why CBME practices support or hinder resident motivation. By outlining the theory's basic psychological needs, we can explain how they drive internalization and integration—the key mechanism for fostering genuine commitment.

Core psychological needs and the promise of CBME

Self-determination theory—a widely validated theory of human motivation, development, and well-being—posits that optimal motivation arises when 3 psychological needs are supported: autonomy (experiencing volition and agency), competence (feeling effective and capable of mastery), and relatedness (feeling respected and connected).[15] When these needs are satisfied, learners are more likely to internalize expectations and pursue them with authentic commitment; however, when they are thwarted, motivation shifts toward minimal compliance or disengagement.[16,17] Motivation can also be understood along a continuum, from amotivation (lack of intention) through controlled forms (external pressure or obligation) to autonomous forms (personal endorsement and integration with identity). At the autonomous end, behaviors are experienced as self-endorsed and value-congruent, producing greater persistence, engagement, and well-being.[16–18] In CBME, supporting residents' psychological needs enables this movement along the continuum, transforming tasks such as documenting EPAs from bureaucratic chores into personally meaningful contributions to growth.

When CBME feels controlling

Residents may experience CBME as controlling when assessment and feedback practices are misaligned with their psychological needs.[19] Feedback might be framed as obligatory, disconnected from residents' goals, or delivered in vague, delayed, or narrowly summative ways. Episodic and fragmented supervision further undermines relatedness, whereas competence is left unsupported. These deficits are not benign. Long-term frustration of psychological needs is linked with disengagement, burnout, and performative professionalism.[20] By contrast, when supervision is timely, trust-based, and autonomy-supportive, residents are more likely to view CBME as meaningful, motivating, and growth-oriented.[21] When this occurs, feedback emerges not as paperwork but as partnership.

Autonomy does not equal independence

A persistent misconception in medical education equates autonomy with independence. Self-determination theory clarifies that autonomy means experiencing volition—not practicing unsupervised. A resident can feel autonomous while being closely guided if their voice is respected and decisions are explained. Conversely, freedom can feel controlling if learners' perspectives are ignored.

We emphasize that distinguishing autonomy from independence matters because it helps educators view autonomy not as a distant

end point but as a core need that can, and should, be supported throughout residency training.[22] This framing enables programs to design supervision that maximizes engagement, performance, and well-being across the postgraduate training continuum. We also echo recent perspectives that respecting learner autonomy is an ethical priority, with profound implications for both supervision practices and learner wellness.[23,24] Seen this way, autonomy is not a privilege of seniority but a condition of learning at every stage.

Internalization and identity formation

Internalization—the process by which external expectations become personally valued—occurs when residents' basic psychological needs are supported.[16,17] Under these conditions, activities such as EPA documentation and coaching conversations can evolve from perfunctory requirements into meaningful experiences that shape identity and deepen professional purpose. Because motivation is dynamic, sustained need support makes integration into professional identity more likely, whereas persistent need frustration fosters disengagement and superficial compliance.[25] Thus, promoting identity formation in CBME demands more than structural reform; it requires ongoing, deliberate alignment with the motivational principles that foster genuine commitment.

Resident agency and agentic engagement

Faculty and systems shape much of the learning climate, but residents are not passive recipients of assessment. Agentic engagement—proactively shaping one's own learning—enhances motivation.[26] Residents can "pull" autonomy support from supervisors by asking for formative feedback, clarifying goals, sharing preferences, and signaling openness.[27] However, few are explicitly taught how to do this. Equipping residents with skills to seek, frame, and use feedback could help them reconcile CBME's dual roles, both developmental and evaluative, and sustain agency, even within fast-paced, hierarchical, and often rigid or bureaucratic structures.[27] Agency is not an alternative to autonomy support but a complement that strengthens the feedback partnership. When both sides lean in—faculty by supporting, residents by engaging—feedback becomes a shared act rather than a one-sided transaction.

Feedback as a developmental process: applying SDT principles

Feedback is where residents most viscerally feel CBME. Designing it to support autonomy, competence, and relatedness determines whether feedback energizes or exhausts.

Autonomy-supportive feedback

Feedback supports autonomy when it respects perspective, provides rationales, offers meaningful choices, and avoids controlling language.[28,29] This becomes particularly important when giving difficult or change-oriented feedback, which can provoke stress, defensiveness, or disengagement.[30] Some faculty rightly note that in matters of patient safety or standards of care, there is no choice: the learner must act in a specific way. From an SDT perspective, however, autonomy support is not about granting free rein; it is about framing. Even when requirements are nonnegotiable, learners can still feel autonomous if they understand the reason, see the relevance, and feel involved in the process.[31] In this way, autonomy is preserved not through independence but through respectful partnership. Done well, this transforms feedback from compliance to collaboration.

Relatedness-building feedback

Feedback is most effective when embedded in relationships of trust. Even brief rotations can foster connection through warmth, curiosity, and empathy. Relatedness is one of the strongest predictors of learner well-being.[18] Although psychological safety is a broader construct encompassing team culture and power dynamics, we focus on relational practices—signaling respect, showing care, and creating space for vulnerability—that faculty can enact daily. This means actively listening to learners, acknowledging their feelings, and offering support without judgment.[18] Individualized learning plans can further scaffold these conversations, offering residents a structured but personalized way to chart goals and track growth in collaboration with mentors.[32] By cultivating a safe and supportive environment, faculty help learners embrace feedback more openly, knowing it comes from a place of care and mutual respect. In these moments, residents experience feedback not as critique but as connection.

Competence-enhancing feedback

Effective feedback is clear, specific, and actionable.[33] It identifies strengths and areas for growth, providing concrete strategies for improvement. Yet, in many postgraduate training environments, there is a lingering belief that praise must be earned. In reality, the evidence suggests the opposite: withholding recognition can have the same detrimental effects as overtly negative feedback, undermining both confidence and psychological safety.[34,35] Consistent and authentic acknowledgment of effort and progress is therefore not indulgent—it is a core ingredient in sustaining motivation, competence, and engagement.

Narrative comments, rather than numeric scores, also better support development.[36,37] However, many faculty resist written feedback, not from neglect but from frustration—feeling micromanaged, unclear on purpose, or unconvinced their comments will be valued. Addressing this requires supporting faculty needs as well: autonomy through clear rationales for narrative feedback, competence through practical tools, and relatedness by connecting their efforts to broader developmental conversations. Without this, even well-designed systems risk alienating those tasked with enacting them. Ultimately, feedback must not only tell residents how to improve but also leave them feeling capable of doing so.

Practical application: embedding need support in CBME

Embedding need support means ensuring that CBME's everyday routines consistently meet residents' psychological needs—not sporadically but predictably. In Table 1, we synthesize strategies identified from peer-reviewed SDT research and medical education literature. Our process involved reviewing SDT applications across health professions education and extracting strategies consistently supported as effective and feasible for postgraduate

Table 1 Self-determination theory-aligned strategies to support motivation and feedback in competency-based medical education.

Strategy	Description and examples	Reference(s)
Autonomy		
Embed field notes in guided reflection	Use field notes as dialogue starters, not checklists. After an encounter, ask, "What would you like to work on next?"	3,12
Scaffold routines for learner voice	Normalize check-ins (eg, feedback huddles) and invite residents to cocreate learning goals and document reflections.	27,28
Use autonomy-supportive framing	Replace "You should" with "Here are options to consider…" and provide rationales, choice, and empathy.	29,30
Support narrative reflection for identity	Incorporate reflective writing or debriefs where residents articulate how experiences shape professional values.	14,24
Competence		
Give clear, actionable feedback	Anchor comments to observed behavior and shared goals: "Your summary was strong; next time, try listing three key interventions."	33
Recognize progress and strengths	Encourage learners and highlight growth over time: "Your presentations are clearer than last month" (reinforces competence and self-efficacy).	34,35
Train faculty in narrative feedback	Equip faculty to provide developmental comments instead of numeric scores.	36,37
Link feedback to mastery and well-being	Affirm effort, normalize struggle, and connect progress to resilience: "This challenge is part of growth; you're on the right track."	17,38
Relatedness		
Foster longitudinal relationships	Pair residents with consistent coaches to track growth and identity development: "Let's review your progress together over the next few months."	14,32
Build trust and psychological safety	Start feedback by inviting the learner's perspective and normalize vulnerability: "It's okay not to know—let's figure it out together."	31
Encourage ILPs	Use ILPs to integrate career interests, identity goals, and well-being priorities.	32
Create well-being rounds or check-ins	Incorporate brief group or 1:1 discussions about stress, coping, and meaning in work to reinforce community.	22,23

training. These strategies are evidence-based, readily transferable, and designed for everyday practice.

A final challenge in implementing these strategies is the dual role of EPAs and field notes as tools for formative dialogue and as evidence of summative progression. If this dual purpose goes unacknowledged, it can create dissonance and mistrust. To address this, we suggest that programs take a transparent approach: framing feedback conversations as primarily developmental, clarifying how documentation informs committee decisions, and separating coaching dialogues from evaluative contexts where feasible. Evidence from both medical education and SDT research demonstrates that transparency, clear role separation, and explicit rationale provision enhance learner receptivity to feedback and subsequent internalization of standards.[9,14,21,28] Making this duality explicit preserves trust while honoring both developmental and accountability functions.

For educators seeking a deeper dive into practical strategies, Neufeld[38] has also published a practical tool outlining high-yield actions to support each psychological need, including example language and case-based scenarios for feedback, remediation, and policy change. These resources underscore that embedding need support is not about adding tasks but about infusing existing practices with motivational quality.

Conclusions

Competency-based medical education was conceived to make assessment more meaningful, but its promise is realized only when residents and faculty work within motivation-enhancing environments. Self-determination theory explains why residents disengage when autonomy, competence, or relatedness are thwarted and why faculty thrive when they too feel supported. When residents feel autonomous, competent, and connected, and when faculty feel empowered and valued, feedback becomes a tool for growth rather than judgment. By embedding SDT principles into assessment design, feedback practices, and faculty development, we can create a virtuous cycle that strengthens learning climates, professional identity formation, and well-being. Reliable prompting systems (eg, structured debriefs, feedback cards) can help translate intention into everyday practice. By moving beyond compliance toward a motivational culture, CBME can foster reflective, self-directed physicians and engaged, fulfilled educators—the dual outcome to which it ultimately aspires. In the end, the success of CBME will not be judged by how many forms are completed but by whether it cultivates physicians who are motivated, reflective, and resilient.

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Data availability

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