

CLINICAL TEACHER'S TOOLBOX OPEN ACCESS

From Suppression to Integration: A Self-Determination Theory Perspective on Emotion Regulation in Medical Education

Adam Neufeld 

Department of Family Medicine, Cumming School of Medicine, University of Calgary, Calgary, Canada

Correspondence: Adam Neufeld (adam.neufeld@ucalgary.ca)**Received:** 22 July 2025 | **Revised:** 22 September 2025 | **Accepted:** 3 October 2025**Funding:** The author received no specific funding for this work.**Keywords:** basic psychological needs | emotion regulation index (ERI) | integrative emotion regulation | psychological safety | self-determination theory (SDT)

ABSTRACT

Purpose: Emotions influence physicians' learning, well-being and clinical care. Yet, emotion regulation remains an underdeveloped area in medical education, often lacking the conceptual clarity and structure needed for consistent teaching and assessment. This paper introduces self-determination theory (SDT) as a comprehensive framework for advancing emotion regulation in clinical training and practice.

Argument: SDT describes three distinct forms of emotion regulation—dysregulation, suppression and integration—each shaped by the degree to which basic psychological needs for autonomy, competence and relatedness are supported. Clinical learning environments may unintentionally foster suppression or dysregulation through cultural norms and structural pressures. These patterns can undermine physician wellness and patient care, whereas integrated regulation has been linked to resilience, empathy and sustained professional engagement.

Insights: SDT brings conceptual precision, strong empirical foundations and existing validated tools for assessment. It offers educators and institutions a ready-to-use framework to support emotional development through curriculum design, coaching and organisational culture, enabling emotion regulation to be approached as a developmental skill.

Conclusion: Applying SDT to emotion regulation offers a promising path forward for medical education. It provides a shared language and actionable strategies to foster emotional integration, enhancing learner development, care quality and system sustainability.

1 | Introduction

Emotion permeates the practice of medicine. Whether navigating life-altering diagnoses, balancing competing expectations or bearing witness to suffering, clinicians must routinely manage not only the emotions of others but also their own. Yet, despite growing interest in psychological safety, burnout and wellness,

emotion regulation remains an underexplored skill in medical education—rarely taught explicitly and often misunderstood as a matter of self-control or moral resilience. When attention is given to emotion, it tends to be reactive and surface level, focusing on immediate coping strategies or debriefs rather than addressing underlying orientations or motivational mechanisms that support long-term integration and adaptation.

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Despite decades of calls to attend to the emotional lives of physicians and learners, medical education continues to struggle with how to meaningfully address emotion in training and practice. In her influential perspective, Shapiro [1] described the culture of medicine as one that promotes ‘professional alexithymia’—a tendency to ignore, suppress or distance from emotion under the guise of professionalism. Ongoing studies on medical trainees support this perspective [2, 3]. Without emotional self-awareness, medical professionals are more likely to experience moral distress, burnout and diminished empathy, all of which undermine quality of care and workforce sustainability.

Over the past few decades, wellness initiatives have expanded, and many curricula now acknowledge the emotional demands of clinical work. But these efforts often remain surface level or difficult to scale. One reason is that most of the literature makes a compelling ethical case for attending to emotion but lacks a clear, psychologically grounded framework to guide assessment, instruction and intervention. Without such a framework, efforts to promote emotional competence risk being too diffuse to replicate, evaluate or meaningfully embed into educational systems.

This paper introduces self-determination theory (SDT; [4, 5])—a leading theory of human motivation—as a conceptual foundation for advancing emotion regulation in medical education. Although SDT has been widely applied to learner motivation and well-being, its relevance to emotional development remains underutilised. Here, I apply SDT’s core principles to describe three empirically grounded types of emotion regulation—dysregulation, suppression and integration—and explore how they are shaped by environmental conditions and psychological needs. This framework offers medical educators a shared language and actionable structure for cultivating emotion regulation as a professional competency, not just a personal trait.

2 | A SDT Framework for Emotion Regulation

SDT posits that all humans require the satisfaction of three basic psychological needs—autonomy (a sense of volition and authenticity), competence (a sense of effectiveness and growth) and relatedness (a sense of connection and belonging) in order to function optimally [4, 5]. When these needs are supported, individuals experience enhanced well-being, motivation and resilience. When thwarted, outcomes include stress, disengagement and burnout.

SDT also describes general causality orientations—habitual ways of perceiving the environment and regulating behaviour—which fall along three lines: autonomous (self-directed), controlled (pressured or externally driven) and impersonal (helpless or disengaged). These motivational orientations are shaped by environments and influence how people regulate their emotions [6]. Recent work in medical education has shown that an

autonomous orientation is linked to lower burnout among residents, whereas controlled and impersonal orientations are associated with greater emotional exhaustion and disengagement [7].

2.1 | Three Regulatory Styles: Dysregulation, Suppression and Integration

Within this framework, SDT identifies three distinct styles of emotion regulation:

- Dysregulation reflects a sense of helplessness, where emotion overwhelms the individual’s ability to reflect or respond intentionally.
- Suppression reflects an inner compulsion to avoid or minimise negative emotions, often due to internal pressure, fear of judgement or cultural norms.
- Integration is an adaptive stance in which individuals acknowledge, reflect on and learn from emotion in ways aligned with their values and growth.

Rather than treating emotion regulation as a static trait or mere coping strategy, SDT frames it as a motivationally embedded, socially influenced process, sensitive to the satisfaction or frustration of basic psychological needs and amenable to change over time [8]. Supporting autonomy, competence and relatedness not only helps individuals navigate emotional challenges but also fosters the psychological openness necessary for integrating those emotions into learning, resilience and identity formation [9].

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Recognising these patterns allows educators to assess and support emotion regulation as a developmental capacity that reflects and reinforces motivational orientation.

These regulatory styles are further illustrated in Table 1, which provides educational examples of each style in clinical and training contexts.

3 | Why Suppression Becomes the Norm in Medical Training

Although medicine is emotionally intense, its culture often discourages emotional expression. Learners are immersed in a system that privileges composure, stoicism and emotional restraint—traits often conflated with competence and professionalism. This restraint is not merely personal—it is culturally conditioned. The clinical environment often contains toxic norms, inconsistent teaching practices and a hidden curriculum that rewards conformity while punishing deviation [11, 12]. Structural inequities and psychological safety concerns remain pervasive, contributing to an environment where learners frequently suppress distress to avoid appearing unprofessional or weak.

TABLE 1 | Emotion regulation styles in SDT: Definitions and examples from medical education contexts.

Regulation style	Definition	Educational example
Dysregulation	A reactive, uncontrolled response to emotion in which individuals feel overwhelmed and unable to reflect or act in alignment with their values	A learner fails an exam, shuts down emotionally and tries to reduce anxiety by cramming facts rather than understanding concepts. They avoid reflection and view the experience as a threat rather than an opportunity for growth.
Suppression	A more controlled, avoidant stance towards emotion involving the minimisation of emotional expression. While sometimes adaptive, suppression can be reinforced by guilt, fear of judgement or adherence to internalised codes of silence	A learner receives critical feedback during a clinical rotation. Although they feel upset and uncertain, they suppress these emotions, avoid discussing them with others and instead double down on performance to prove themselves, never revisiting the emotional impact of the feedback.
Integration	The most autonomous form of emotion regulation, characterised by acknowledging, reflecting on and learning from emotional experiences in a way that aligns with one's identity and values	A learner feels guilt and sorrow after a code in which a patient died. With a supervisor's support, they reflect on the experience, discuss their role in team debrief and come to see how it affirms their commitment to compassionate care.

Note: These three regulatory styles lie on a continuum from least to most self-determined. Each is influenced by personal and contextual factors. Definitions adapted from Roth et al. [10] and the emotion regulation index.

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Formal professionalism frameworks may reinforce this stance by implicitly equating emotional expression with a lack of composure or boundary failure [13]. Systemic pressures such as high-stakes evaluations, time scarcity and rigid hierarchies further erode the psychological safety required for emotional integration. Without autonomy, learners have little room to process emotion authentically. Without competence, they may view emotional struggle as failure rather than a normal response to suffering and complexity. And without relatedness, they lack trusted relationships where vulnerability is welcomed, leaving them to navigate distress in isolation—a pattern intensified by the underlying belief that struggling undermines the privilege of practising medicine [14].

A growing body of research confirms that physicians who chronically suppress or dysregulate their emotions are more likely to experience burnout, make medical errors and exit the profession prematurely [15]. They are also at greater risk of moral injury, substance use and withdrawal from peers and patients [16]. These outcomes reflect not only the emotional toll of clinical work but also the failure of educational systems to support the psychological conditions that enable resilience.

Consistent with SDT, studies within medical education, as well as broader psychological and health-related contexts, have shown that basic psychological need satisfaction supports adaptive coping and empathy, whereas need frustration contributes to suppression, avoidance and distress [9, 17, 18]. These findings reinforce the idea that emotion regulation is not a personal flaw or fixed trait to be managed—it is a teachable, relationally mediated skill that depends on the social environment.

To address this, emotion regulation must be elevated from a hidden curriculum to a core developmental competency. Medical education must intentionally support the conditions that allow emotional fluency to develop over time, just as it does for procedural or diagnostic skill.

4 | From Hidden Curriculum to Developmental Priority

If emotional suppression is culturally reinforced, what does it take to normalise and teach integration instead? SDT offers both an explanatory framework and a practical guide. By supporting learners' basic psychological needs, educators can help shift emotion regulation from a hidden and reactive coping strategy to a proactive, developmental process that strengthens motivation, resilience and self-awareness. This shift requires embedding emotion regulation in the formal curriculum, role modelling it in supervision and fostering a psychologically safe culture across educational systems. Table 2 summarises illustrative strategies across these domains.

4.1 | Teaching and Supervision

Educators are uniquely positioned to support learners' emotional development, but only if they themselves are equipped to do so. Feedback and assessment moments are emotionally charged: they can either support growth or reinforce shame. Bynum et al. [20] have shown that shame is a pervasive and under-addressed emotional experience in medical training—one that, if ignored, can inhibit reflection, weaken identity and fuel maladaptive regulation strategies such as suppression or avoidance.

Shame-competent educators—those who are attuned to the affective undercurrents of learning and who respond with

TABLE 2 | Need-supportive strategies across domains of emotion regulation in medical education.

Domain	Autonomy	Competence	Relatedness
Teaching and supervision	• Validate emotion as meaningful, not inappropriate • Invite reflection instead of defaulting to control • Give rationale when expectations are high, or feedback is tough	• Frame emotion regulation as a skill that develops over time • Normalise distress without minimising it • Offer tools (e.g., vocabulary and reflection prompts)	• Build trust through authentic emotional presence • Use difficult moments as connection opportunities • Cultivate non-judgemental supervision norms
Wellness programming	• Support flexible reflection (e.g., journaling) • Encourage agency in use of coping strategies • Avoid 'one-size-fits-all' wellness formats	• Teach learners to recognise suppression/dysregulation • Scaffold meaning-making from emotional experiences • Pair emotion regulation training with resilience workshops	• Affirm that emotional struggle is expected, not failure • Provide peer spaces for story-sharing • Promote mutual support without forcing vulnerability
Curriculum and assessment	• Co-create OSCEs or Comms modules with learners • Embed rationale into professional teaching • Teach motivational interviewing as attunement, not persuasion	• Reinforce integration in feedback (e.g., recognise empathy, not just performance) • Include formative assessment of emotional presence • Incorporate ERI-based reflective prompts into assessments	• Highlight emotional authenticity as clinical strength • Align assessment with presence and connection • Train faculty to model psychological safety in assessment feedback

Note: Strategies adapted in part from Neufeld [19]. These strategies illustrate how autonomy, competence and relatedness can be supported across medical education domains to foster emotional integration and well-being.

curiosity, compassion and psychological safety—can transform feedback into opportunities for integration [21]. Faculty development programmes that teach these principles are essential. By scaffolding learner reflection, validating emotional experiences and modelling mature regulation, educators can help learners transform threat into self-awareness.

These benefits are reciprocal. Studies show that autonomy-supportive teaching practices not only foster learner resilience but also reduce educator burnout and increase vitality [22]. Emotionally attuned supervision, then, is not just a learner intervention—it is a wellness practice for faculty as well.

4.2 | Wellness and Resilience

Despite the growing popularity of wellness curricula, many programmes still treat emotion regulation as a trait to monitor or an individual problem to manage. Instead, it must be understood as a dynamic process shaped by the motivational climate. Supporting learners' basic psychological needs enhances emotional fluency, whereas need frustration exacerbates maladaptive patterns like suppression and denial [9, 17].

Self-reflection exercises, such as narrative writing, values clarification or experiential workshops, can foster awareness of how emotion regulation patterns develop and how they intersect with

one's motivational orientation. For instance, the student who consistently pushes down frustration may recognise a deeper pattern of guilt-driven perfectionism; the resident who detaches after patient deaths may discover fear of vulnerability. These insights open the door to integration, not by erasing distress but by contextualising it.

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To truly support integration, wellness programmes must validate that emotional difficulty is a normal and expected part of training, not a deviation from it. Learners should be encouraged to explore what their emotions reveal about their values, needs and limits. When autonomy is supported, learners feel safe to acknowledge inner experiences; when competence is built, they feel able to use those experiences for growth; and when relatedness is fostered, they know they are not alone.

4.3 | Curriculum and Assessment

Emotion regulation should be embedded in medical curricula as deliberately as communication or professionalism. This includes training learners in the emotional dimensions of care—attending to patients' distress, acknowledging uncertainty and navigating their own responses to suffering.

Modules on motivational interviewing, trauma-informed care or delivering bad news offer ideal opportunities to reinforce integrative skills.

Assessment practices can reinforce emotional development. OSCEs, for example, can include stations that evaluate learners' ability to hold emotional space, respond to distress or communicate authentically. These assessments signal what the profession values.

In both clinical teaching and simulation, autonomy-supportive care can be modelled and practised. Studies show that when healthcare providers support patients' psychological needs—by validating emotion, offering rationale and involving collaboration—patients experience greater engagement and well-being [23]. These same principles apply to learners. Embedding emotional presence into curricula equips physicians not only with expertise but also with humanity—a skill that can be taught, assessed and improved.

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5 | Measuring Change: The Emotion Regulation Index (ERI)

Validated tools are needed to guide and assess progress in emotional development. One such tool is the emotion regulation index (ERI), developed by Roth et al. [24]. It assesses integrative, suppressive and dysregulated styles—linked to autonomous, controlled and impersonal motivational orientations—and has been associated with outcomes like empathy, stress and well-being across diverse contexts [9, 25, 26].

In medical education, the ERI can be used at the programme level, for self-reflection or to evaluate interventions. For example, it can assess how learners manage emotion during patient deaths, uncertainty or feedback, or track changes in emotional climate across rotations. When used appropriately, the ERI highlights how environments—not just individuals—shape emotional development. High integrative scores may reflect psychological safety; elevated suppression may signal cultures of fear or shame.

Importantly, the ERI is not diagnostic. Rather, it offers a theory-based lens to examine how systems foster or hinder integration. Used alongside reform efforts, it enables data-informed improvement.

6 | Limitations and Future Directions

Not all suppression is maladaptive. At times, physicians may modulate emotion to maintain focus or therapeutic neutrality. Similarly, integration does not require processing every emotion: some feelings can rise and pass without reflection. What matters is the capacity to make meaning of emotionally charged experiences.

Emotion regulation styles are dynamic and context dependent, not fixed traits [27]. Most individuals shift between suppression, dysregulation and integration depending on support. Tools like the ERI are best used to understand systems, not label individuals.

Although SDT offers a strong foundation, it cannot capture every nuance. Its strength lies in making emotional development teachable and measurable. Future research should explore how tools like the ERI can track change over time and relate to identity, empathy and well-being.

7 | Conclusion: Towards Emotionally Fluent Physicians

Emotion regulation in medical education has long remained in the shadows—tacitly expected, inconsistently modelled and rarely taught. Yet, as this paper has argued, emotion regulation is not a peripheral skill. It is central to professional identity, humanistic care and psychological resilience. Suppression, avoidance and dysregulation are not failings of individual learners; they are adaptive responses to unsupportive environments.

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SDT offers both an explanatory framework and a roadmap for change. By supporting learners' autonomy, competence and relatedness, we can foster more adaptive regulation—moving from suppression and silence to integration and growth. Emotion regulation, when scaffolded and assessed with the same intentionality as clinical skills, strengthens not only the learner but also the learning environment, patient relationships and the profession itself.

The imperative now is clear: we must bring emotional development out of the hidden curriculum and into the core of medical training. Faculty development, wellness initiatives and curricular reform all represent leverage points for this transformation. When learners are met with psychological safety, attuned supervision and curricula that honour their full humanity, they become not only better clinicians but healthier, more resilient people.

Conflicts of Interest

The author declares no conflicts of interest.

Data Availability Statement

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

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