CLINICAL TEACHER'S TOOLBOX

Putting Self-Determination Theory Into Practice: A Practical Tool for Supporting Medical Learners' Motivation

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ABSTRACT

Self-determination theory (SDT) is a well-established framework that identifies three basic psychological needs—autonomy, competence and relatedness—as essential for motivation, engagement and well-being. Despite increasing recognition of SDT's relevance in medical education, educators lack practical tools to translate theory into daily teaching practice. This paper addresses that gap by offering a concise, evidence-informed table of actionable strategies for educators to support learners' psychological needs in routine interactions. Targeted at clinical teachers and program leaders, the tool is designed to guide real-time application of SDT principles, fostering learning environments where motivation and thriving can take root. A key feature of the tool is its inclusion of specific, example language that educators can use to support autonomy, competence and relatedness in everyday clinical interactions. In addition, I present a single-page visual summary (Figure 1) that brings together the highest-yield SDT strategies in a concise, accessible reference. This diagram serves as a practical checkpoint and reminder for educators to align their daily interactions with SDT principles.

1 | Introduction

Medical education today faces a dual challenge: erosion of intrinsic motivation among learners and widespread concerns about burnout, disengagement and wellness. As training environments grow increasingly complex, there is a need for frameworks that not only promote performance but also foster sustainable, meaningful engagement. Self-determination theory (SDT) [1] is uniquely suited to address this challenge, offering a well-validated framework for understanding and supporting human motivation, particularly in high-stakes, hierarchical environments like healthcare.

SDT posits that all people have three basic psychological needs—autonomy (feeling volitional and self-directed), competence (feeling effective and capable) and relatedness (feeling cared for and connected to others) [1]. When educators actively support these needs through autonomy-supportive practices, learners are more likely to be engaged, motivated and resilient [2]. In contrast, environments that are overly controlling, rigid, or transactional can frustrate these needs, leading to apathy, disengagement and burnout [2].

While SDT has gained traction in medical education research, educators and program leaders often lack concrete tools to apply its principles in clinical teaching. This challenge is compounded by the common conflation of autonomy with independence [3]—an important distinction in SDT that has significant implications for how learners are coached, assessed and supported. Autonomy reflects a sense of volition

and ownership, whereas independence implies functioning without support. In training, the aim is not to leave learners on their own, but to foster agency while providing mentorship and scaffolding. Autonomy is a psychological need to be supported throughout learning—not just a future goal—making autonomy support both educationally essential and ethically grounded [4].

> *"Autonomy is not independence—it's a psychological need that must be supported throughout learning."*

To help address these challenges, I developed a one-page diagram and comprehensive strategy table that offer practical, high-yield examples of how to support learners' basic psychological needs. The goal is to provide a concise, evidence-based resource, summarized in a single reference table and figure, to help educators incorporate SDT principles into everyday interactions with learners. These strategies are grounded in SDT-informed educational research showing that autonomy-supportive teaching, competence-focused feedback, and inclusive, caring relationships improve learner motivation, engagement and satisfaction [5–7]. This includes common teaching moments such as feedback, case discussions, supervision and mentorship. However, these strategies are also applicable to professional development contexts, along with more challenging conversations such as remediation or performance reviews.

2 | Methods

The guide was developed through an iterative synthesis of key SDT texts, including Supporting Students' Motivation [8], the Oxford Handbook of SDT [9] and Self-Determination Theory: Basic Psychological Needs in Motivation and Wellness [10]. Strategies with strong empirical support were extracted and adapted for clinical teaching contexts. Unlike earlier frameworks, such as Kusurkar's "Twelve tips" article on stimulating intrinsic motivation in students through autonomy-supportive teaching [11], which focuses on classroom-based approaches, this guide is designed for moment-to-moment interpersonal interactions within clinical settings. Clinical settings are inherently more dynamic and hierarchical than classrooms, requiring motivational strategies that are brief, flexible and relational.

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I also drew on my experience as a medical educator, clinician-leader and faculty member who has implemented SDT in both resident and student teaching, as well as faculty development. These strategies build on foundational SDT literature and are further supported by practical applications in health professions education (HPE). For example, Williams [12] showed how SDT principles enhance patient-centred teaching and communication skills among medical students, Orsini [13] demonstrated the positive effects of autonomy-supportive instruction on dental students' motivation and engagement, and Neufeld and Malin [14] highlighted the role of psychological need support in promoting learner wellness and effective supervision.

Informal consultation with SDT scholars and medical education colleagues over the past 3 years has helped shape the tool's content and language. As a researcher actively engaged in SDT scholarship, I have drawn not only from the literature but also from ongoing dialogue with international experts and real-world application in medical education settings. To prioritize content, I selected strategies that (1) are empirically supported by educational research, (2) align closely with SDT's theoretical underpinnings and (3) apply across a wide range of educational scenarios. These actions have consistently emerged as foundational for supporting autonomy, competence and relatedness. While formal pilot testing is ongoing, the tool has been presented in workshops and refined based on real-time feedback from both faculty and learners.

3 | The Practical Guide: Strategies and Examples

Table 1 provides a categorized and scenario-oriented set of strategies to support autonomy, competence and relatedness. Each section includes specific behaviours and sample phrases. These are grouped by typical educational moments: clinical teaching, feedback, challenging conversations and mentorship.

4 | Scenarios in Practice

Below are five illustrative scenarios that demonstrate the guide in action and help connect Table 1's concrete strategies to real-world application. These vignettes are not exhaustive, but they model how supporting basic psychological needs in deliberate sequence can yield better engagement, learning and emotional climate.

4.1 | Scenario 1: Feedback With a Struggling Learner

A resident is having difficulty with patient communication and clinical reasoning. The educator begins by building *relatedness*—creating psychological safety and emotional support: "I know you're working hard and want to get better. I'm here to support you, and we can talk through things together." This approach helps reduce defensiveness and opens space for trust. The conversation then transitions to *competence* by offering targeted feedback grounded in growth: "Next time, try organizing your differential diagnoses by likelihood. That will help clarify your thought process for the team." Finally, the educator supports *autonomy* by inviting reflection and input: "Is there an area you'd like to focus on improving first?" The combined effect is a learner who feels seen, respected, capable and empowered—more likely to engage and improve.

This approach reflects evidence that supporting psychological needs during feedback enhances receptivity, motivation and growth among learners in HPE [15].

TABLE 1 | Strategies to support learners' basic psychological needs.

Scenario	Psychological need	Strategy	Example language
Feedback and supervision	Autonomy	Offer meaningful rationale for tasks or requests	"Let's talk through why this step is important, clinically."
Feeback and supervision	Competence	Provide specific, task-focused feedback	"That was a clear presentation. Next time, consider trying ..."
Feedback and supervision	Relatedness	Acknowledge the learner's effort and context	"I can see you put effort into preparing."
Feedback and supervision	Autonomy	Invite learners to reflect and identify goals	"What's one thing you'd like to focus on next?"
Clinical teaching	Competence	Scaffold tasks to match the learner's level	"Why don't you observe first, then try with support?"
Clinical teaching	Relatedness	Check in with learners and give encouragement	"You're doing well. How are you finding things so far?"
Clinical teaching	Autonomy	Offer meaningful choices during case discussions	"Would you prefer to present or observe this time?"
Clinical teaching	Competence	Use questions to guide reasoning instead of correcting	"What do you think is going on with this patient?"
Challenging conversations	Relatedness	Normalize struggles and validate emotions	"This rotation is tough. Many feel overwhelmed."
Challenging conversations	Autonomy	Collaborate on problem-solving next steps	"How are you feeling about this situation? Let's talk it through."
Challenging conversations	Competence	Reframe challenges as opportunities for growth	"This is not failure. It's part of the learning process."
Challenging conversations	Relatedness	Show curiosity and openness to their perspective	"Thanks for sharing that. How can I support you?"
Mentorship	Autonomy	Explore learner values before giving advice	"What matters most to you in your future work?"
Mentorship	Competence	Celebrate progress and strengths	"You've made real progress in clinical reasoning. Well-done!"
Mentorship	Relatedness	Be available and approachable	"Let's check in regularly and make sure you feel supported."

4.2 | Scenario 2: Implementing a New Documentation Policy

A residency program introduces additional electronic health record requirements. To reduce resistance, the program director starts with *autonomy*—explaining the rationale, addressing pain points, and asking for feedback: "We know this change may feel burdensome, but it's intended to support continuity and safety in patient care. What are your thoughts on how this will fit into your current workflow?" Next, they support *competence* with training and tools: "We'll provide tips for efficient documentation and protected time to practice." They close with *relatedness* by inviting collaboration and continued dialogue: "Let's revisit this in a few weeks together and adjust based on your experiences."

By addressing the needs in sequence, the program fosters buy-in, readiness and a sense of partnership. Such autonomy-supportive leadership strategies have been shown to improve organizational engagement and reduce emotional exhaustion among learners in HPE [6, 16].

> *"Autonomy-supportive leadership strategies have been shown to improve organizational engagement and reduce emotional exhaustion."*

4.3 | Scenario 3: Clinical Teaching With a Junior Learner

A medical student is new to the clinical environment. The educator supports *competence* by scaffolding learning: "First, observe how I assess abdominal pain, then you can try on the next patient." They then build *relatedness* through positive reinforcement and shared reflection: "That was a good first attempt. What did you notice about the patient's response?" Finally, they promote *autonomy* by encouraging initiative: "If you're feeling ready, you can take the lead on presenting the next case."

This kind of structured guidance and autonomy support helps the learner move from uncertainty to confident participation, promoting safety, growth and well-being [12, 17].

4.4 | Scenario 4: Addressing Signs of Burnout in Residents

A program director notices residents showing signs of burnout. They begin with *relatedness*—normalizing and validating stress: "This has been a tough rotation for many—how are you managing?" This creates space for openness and trust. They then shift to *autonomy* by inviting shared problem-solving: "Are there any changes we could consider together that might make this more sustainable for you?" Finally, they support *competence* with actionable strategies: "Let's discuss how to triage and prioritize tasks more efficiently."

Supportive supervisory practices like these reassure the learner that their emotions are valid, their voice matters and they have tools to regain control and effectiveness. They, along with higher workplace autonomy in general, have been shown to mitigate burnout and promote resilience in resident doctors, through psychological need fulfilment [18, 19].

4.5 | Scenario 5: Fostering Identity Safety in Clinical Teaching

A medical student with a minoritized identity expresses discomfort during interdisciplinary rounds. The educator begins by supporting *relatedness*—validating and acknowledging the student's experience: "Thank you for speaking up. I want you to feel like your presence and contributions matter here, and I'm committed to supporting that." Next, they support *autonomy* by inviting collaboration in shaping the learning environment: "Are there specific things I can do—or we as a team can do—to make this a space where you feel safer and more included?" Finally, they support *competence* by helping the student navigate complex team dynamics: "Let's talk through how to handle challenging group interactions, and if anything comes up, I'll be here to help address it."

This layered approach promotes inclusion and authentic self-expression—key aspects of identity safety in learning. It reflects growing evidence that educators play a critical role in affirming learners' identities and fostering equitable environments for participation [20].

> *"This layered approach promotes inclusion and authentic self-expression—key aspects of identity safety in learning."*

4.6 | Summary and Visual Integration

Each of these scenarios reflects how strategies from Table 1 can be layered and sequenced in practice. Supporting basic psychological needs in a deliberate and integrated way promotes engagement, reduces defensiveness and creates the conditions for learning to flourish. The examples span multiple stages of training, from medical students to residents and fellows, illustrating how psychological needs manifest differently across developmental levels but remain equally essential. While the language and complexity of support may shift with experience, the underlying framework holds across the continuum of medical education. Moreover, when educators foster motivation and well-being in learners, they often experience reciprocal benefits: stronger relationships, more engaged trainees and a more collaborative, fulfilling teaching experience [21, 22].

> *"Supporting psychological needs in a deliberate and integrated way promotes engagement, reduces defensiveness and creates the conditions for learning to flourish."*

Figure 1 provides a visual summary of how autonomy, competence and relatedness can be supported across clinical teaching scenarios. While the scenarios and strategies focus primarily on interpersonal teaching and leadership, many can also inform structural or policy-level decisions, such as scheduling, documentation processes and workflow redesign. In this way, the guide illustrates how SDT can be operationalized across both micro (individual) and macro (systemic) levels to enhance the learning and work environment. It complements Table 1 by illustrating the integrated and dynamic nature of psychological need support in medical education.

5 | Discussion and Future Directions

This guide provides educators with a user-friendly, evidence-informed tool to apply SDT principles in daily interactions. Unlike traditional theoretical papers, core concepts are translated into practical actions that support learner well-being and motivation. The provided tool complements prior efforts and extends them by offering concrete, scenario-based language for clinical educators.

I recognize limitations. The tool is not a substitute for formal faculty development and does not yet include data from formal validation studies. Future research is needed to evaluate its usability and impact on learning climates. I also acknowledge that truly inclusive learning environments require attention to identity, culture and power. For instance, promoting inclusion may require addressing microaggressions, not simply inviting participation.

Despite these limitations, I believe this guide is a meaningful step toward helping educators in HPE to operationalize SDT. By

FIGURE 1 | Supporting learners' autonomy, competence and relatedness.

anchoring educational practice in psychological need support, we can create environments where learners feel autonomous, competent and connected—conditions essential for thriving.

Author Contributions

Adam Neufeld: conceptualization, writing – original draft, methodology, visualization, writing – review and editing, resources.

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Ethics Statement

This project did not involve human participants, interventions or identifiable data, and therefore did not require formal ethics approval according to institutional guidelines.

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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