university of groningen

University Medical Center Groningen

University of Groningen

When Play Reveals the Ache

Weller, Indigo; Spiegel, Maura; de Carvalho Filho, Marco Antonio; Martin, Andrés

Published in:
The Journal of medical humanities

DOI:
10.1007/s10912-023-09837-7

IMPORTANT NOTE: You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

Document Version
Publisher's PDF, also known as Version of record

Publication date:
2024

Link to publication in University of Groningen/UMCG research database

Citation for published version (APA):
Weller, I., Spiegel, M., de Carvalho Filho, M. A., & Martin, A. (2024). When Play Reveals the Ache: Introducing Co-constructive Patient Simulation for Narrative Practitioners in Medical Education. *The Journal of medical humanities*, *45*, 243–265. https://doi.org/10.1007/s10912-023-09837-7

Copyright
Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the “Taverne” license. More information can be found on the University of Groningen website: https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment.

Take-down policy
If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

Downloaded from the University of Groningen/UMCG research database (Pure): http://www.rug.nl/research/portal. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.

Download date: 18-05-2025

Journal of Medical Humanities (2024) 45:243–265
https://doi.org/10.1007/s10912-023-09837-7

EDUCATIONAL RESEARCH ARTICLE

When Play Reveals the Ache: Introducing Co-constructive Patient Simulation for Narrative Practitioners in Medical Education

Indigo Weller[1] · Maura Spiegel[2] · Marco Antonio de Carvalho Filho[3] · Andrés Martin[1]

Accepted: 13 December 2023 / Published online: 18 April 2024
© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2024

Abstract
Despite the ubiquity of healthcare simulation and the humanities in medical education, the two domains of learning remain unintegrated. The stories suffused within healthcare simulation have thus remained unshaped by the developments of narrative medicine and the health humanities. Healthcare simulation, in turn, has yet to utilize concepts like co-construction and narrative competence to enrich learners' understanding of patient experience alongside their clinical competencies. To create a conceptual bridge between these two fields (including narrative-based inquiry more broadly), we redescribe narrative competence via Ronald Heifetz's distinction of "technical" and "adaptive" challenges outlined in his adaptive leadership model. Heifetz, we argue, enriches learners' self-understanding of the unique demands of cultivating narrative competence, which can be both elucidated on the page and tested within the charged yet supportive simulation environment. We introduce Co-constructive Patient Simulation (CCPS) to demonstrate how working with simulated patients can support narrative work by drawing on the clinical vicissitudes of learners in the formulation and enactment of case studies. The three movements of CCPS—resensing, retelling, and retooling—told through learner experiences, describe the affinities and divergences between narrative medicine's sequence of attention, representation, and affiliation; Montello's three forms of narrative competence (departure, performance, change), and Heifetz's three steps (observe, interpret, and intervene) of adaptive leadership.

Keywords narrative medicine · reflective practice · medical professionalization · adaptive leadership · medical education · professional development

Most of the shadows of this life are caused by standing in one's own sunshine.

—Ralph Waldo Emerson

✉ Indigo Weller
iw2219@columbia.edu

[1] Yale School of Medicine, Child Study Center, New Haven, CT, USA

[2] Columbia University, CUIMC Division of Narrative Medicine, New York City, NY, USA

[3] Wenckebach Institute, Research Program LEARN (Lifelong Learning, Assessment and Research Network), University Medical Center Groningen, University of Groningen, Groningen, Netherlands

> It is true that storytelling reveals meaning without committing the error of defining it, that it brings about consent and reconciliation with things as they really are...
> —Hannah Arendt, *Men in Dark Times*

Context: Medical Simulation and Narrative Medicine

The demands of clinical practice require learners to navigate complex environments daily. How medical education might best prepare students to befriend complexity, hone reflection, and develop a unique composite of skills has remained an intractable task for educators. In recent decades, the recognition of the injurious effects of bureaucratized healthcare has renewed interest in the work of the humanities. Humanities and narrative medicine curricula have sought to develop a "social depth of field" toward the structural and psychosocial dimensions of healthcare, in conjunction with a narratively attentive attitude, to address the current challenges facing patients and providers (Charon and Hermann 2012; Klugman et al. 2021; Nixon 2011, 26). The field of healthcare simulation has advanced alongside to teach core competencies and address corollary issues like the long-debated "empathy gap." Novel technologies, such as virtual reality, task trainers, and high-fidelity theatres, are increasingly combined with classroom-based learning to expose students to a breadth of clinical situations. While healthcare simulation and the humanities might diverge in their approaches, both fields recognize they are "not intended to replace the need for learning in the clinical environment, but through improved preparation, to enhance the clinical experience and improve patient care" (Maran and Glavin 2003, 22).

Healthcare simulation is broadly defined as "a technique that creates a situation or environment to allow persons to experience a representation of a real event for the purpose of practice, learning, evaluation, testing, or to gain understanding of systems or human actions" (Lopreiato 2016, 34). The practice permits learners to refine the competencies of their craft in a safe environment while ensuring no patients are harmed. Alinier (2007) outlines a typology of simulation that both differs in levels of verisimilitude (from written assignments and role-playing in a classroom to computer-based exercises and performing specific tasks within a high-fidelity simulation center), types of skills assessed (cognitive, psychomotor, and interpersonal), and further specifies if it is conducted by a student, a trainer or both. Following Alinier (2007), our explicit focus in this article is "level three," or simply working with standardized and simulated patients (using paid actors, hereafter called "SPs"). In standardized patient scenarios, instructors routinely develop learning objectives and craft scripts that are embodied by professional actors engaged as SPs. The primary outcomes center communication as the actors, or in some cases patients with lived expertise, provide real-time feedback for the learner.

Instructor-driven standardization is, without question, a necessary first step to establishing core competencies for medical learners. Yet, the practice soon becomes insufficient for learners tasked with navigating complex systems with distinct contextual features (e.g., the structure of staffing and protocols within an in-patient unit, team dynamics, unprecedented changes to policy during COVID-19, or the composite challenges of bias, stigma, and one's physical and mental health). When set against the "thick descriptions" found in the clinic and the humanities, standardized cases can also unwittingly flatten the complexity of the patient experience (Geertz 1973).

Moreover, healthcare simulation remains largely practice- or test-based in its attempt to instill and evaluate clinical skills, whereas the exploratory commitments of the narrative medicine workshop seek to foster the empathy and imagination of its learners (Charon et al. 2017). Narrative medicine and simulation educators both query whether the evaluation of reflective work and performance in simulation might, in fact, function as an impediment to *becoming* a physician, given the tacit incentive to simply *act* as one (Charon and Hermann 2012; de la Croix and Veen 2018; Moniz et al. 2022). Competencies crucial to healthcare practice, such as clinical empathy, risk becoming prescriptive, robotic, or even coercive if left unexamined by the humanities (Breithaupt 2019).

Some pedagogues wonder if the teaching and testing of empathic responsiveness, either via simulation or close reading, is even transferable to clinical practice to begin with (Garden 2007; Brenner 2009); astute learners become more adept at performing a "correct" sequence of "verbal" and "motor" responses for a patient instead of cultivating an observational agility sensitive to the needs and values of their context. The insistence on what is correct, whether stated or left unspoken, also means learners and supervisors miss capitalizing on the affordances of crafting an immersive learning environment that welcomes play and experimentation in equal measure. Any strict definition of accomplishment means supervisors diminish opportunities to innervate democratic and horizontal dialogue (de Carvalho Filho et al. 2020). Here, we should note that healthcare simulation is not inherently assessment-driven. Rather, it is the edicts of medical education that delimit its creative and exploratory possibilities. For instance, the Medical Education Empowered by Theater (MEET) initiative started by clinicians in Brazil, not to mention Jacob L. Moreno's pioneering work in psychodrama, attests to the kind of imaginative inquiry available when the focus is on play and process over the formative and summative assessment of predefined outcomes (Moreno 1987; de Carvalho Filho et al. 2020).

For instructors, the question remains: What method is best suited to teach skills that are as multi-faceted as they are elusive? To fully attend to the storied humanity of their patients, learners must practice the simultaneous application of teachable *technical* skills (a percutaneous suture or resetting a dislocated shoulder) while undergoing an *adaptive* transformation of their identity. The diversity of personalities, histories, and aptitudes means each learner is presented with a unique undertaking. Physician and professor of leadership Ronald Heifetz developed his theory of adaptive leadership to equip organizations with the tools to differentially diagnose "technical" and "adaptive" challenges. The former describes problems that can be remediated by learning a new skill or procedure, whereas the latter can only be solved by a fundamental shift in habits, attitudes, and beliefs. For instance, if a learner is struggling to perform an assessment during their clinical rotation, the task of the supervisor is to understand if the source of their struggle is more training (a technical problem) or requires them to address the ways their team or their own life experience impacts the task (an adaptive problem). Similarly, if we were to examine the precipitating factors of, say, clinician burnout, we would identify the technical challenges within the organizational structure (reducing log-in times and administrative protocols that encumber the delivery of care) with adaptive challenges (supporting individuals and teams to enact preventative measures of stress reduction or challenge administrative guidelines). Clinicians have already applied adaptive leadership in a variety of contexts to differentiate between what can be achieved via intervention versus what requires a transformation of lifestyle (Thygeson, Morrisey, and Ulstad 2010; Kuluski, Reid, and Baker 2020). When integrating narrative-based inquiry with healthcare simulation, Heifetz's distinction grants us a deeper understanding of how each modality might support the particularities of learners' and instructors' challenges.

To this end, we first redescribe narrative competence using Heifetz's terms. By providing a means to analyze what is required of the learner to "absorb, analyze, and interpret" patient stories, we can help them clarify what methods are best suited for them to develop as clinicians and citizens (Charon et al. 2017). Second, we introduce our Co-constructive Patient Simulation (CCPS) methodology and conceptual framework to the adjacent field of the health humanities to posit how narrative medicine's attention to the intimacies and immensities of patient stories can enhance the learner experience in simulated scenarios. We aim to use the features of CCPS—resensing, retelling, retooling—to redescribe how we can return a sense of play and exploration to patient simulation for it to become a vital extension of narrative work (namely, close reading and reflective writing), albeit in the affectively heightened and improvisational dance of the learner, SP, and the group.

A Note on the Genesis of CCPS

The conception of this paper arose from a collaboration between the lead author, AM, and MCF. In 2019, AM and MCF conceptualized the core features of CCPS based on MCF's (de Carvalho Filho et al. 2020) prior design of MEET, which integrated techniques from Augusto Boal's Forum Theatre (Boal 2006), alongside Paulo Freire's (2000) "Pedagogy of the Oppressed," to facilitate creative and self-reflective explorations of clinical competencies for Brazilian medical students. CCPS, described in detail below, was trialed and refined in a classroom located in the Child Study Center at Yale University with paid actors and several small cohorts of child and adolescent psychiatry fellows, completing their final six months of training before graduation. IW joined the project with a background in narrative medicine, psychology, and creative writing. In conversation with MS, IW examined how the principles and practices of narrative medicine can be adapted to draw out the narrative work of healthcare simulation. First, to imagine how we might transpose the attentive feedback, open invitations, and unhurried warmth of the narrative medicine workshop into each movement of CCPS. The chief aim is to potentiate intra- and inter-professional exchanges of mutual vulnerability, curiosity, and imperfection for both learners *and* supervisors. Second, to posit how CCPS can expand the extant pedagogy of narrative competence, which typically combines close reading with the writing and sharing of prompt-driven reflection, to include the pressured environment of patient simulation.

Since CCPS's inception, we have recognized that not all learners favor group-based methods of creative inquiry to metabolize their experience. Learners may, in fact, be averse to them for numerous personal reasons or proclivities and seek professional development opportunities instead, which are tool-centric and immediately actionable (at least in what they purport). A learner may also be more inclined to read and discuss a case study or scientific article with colleagues instead of undertaking the slow work of reading literature where the clinical application is often latent or oblique. We learned this plainly at the culmination of our first six-month trial wherein soliciting feedback, several learners were more interested in acquiring the video recordings of each simulation and debrief to take to their next positions than vocalizing how the group may have personally changed them. Standing on the verge of graduation, the learners' desire for more information to allay the daunting prospect of unsupervised practice is perfectly understandable.

The task here, as we see it, is for us to become students of polarity and welcome the spectrum of learner preferences without imposing a tacit axiology (i.e., privileging the often slow, atelic, and latent aspects of narrative inquiry over the goal- or action-focused

executive coaching or healthcare simulation). That is, to find ways to integrate the guiding frameworks of each pillar of medical education (e.g., acquiring clinical competencies via simulation and a humanities education) to playfully challenge the all too human conundrum of "knowledge that does not act [a hazard of the scholar, late-career clinician, or research scientist] and action that does not know [a hazard of the medical student, advocate or activist]" (Hillman 2021). CCPS, as we will show, is one space designed to identify and test where one exists in relation to such a conundrum to become a more narratively attuned clinician-leader.

The intention of our paper is to demonstrate how narrative practitioners and practices can serve as fruitful sources of insight within healthcare simulation departments to guide learners in deepening the application of narrative medicine to other fundaments of medical education. It is also to show how frameworks and concepts sought in executive coaching, organizational leadership, and change management by tool-centric learners can be brought into narrative work to unveil their complementarity. In other words, we need approaches that hold the productive tension between aesthetic risk (crafting and sharing a personal story) and professional risk (identifying and challenging the tacit agreements of the group) when co-evolving a community of practice (CoP) (Wenger 1998; de Carvalho-Filho, Tio, and Steinert 2020). Redescribing narrative competence through adaptive leadership is the first step.

Redescribing Narrative Competence with Adaptive Leadership: A Bridge Toward Narrative Patient Simulation

While narrative competence remains widely cited and employed since its coinage, it is worth reflecting on the construction of the concept itself as a starting point for our synthesis. Narrative competence is defined as "the competence that human beings use to absorb, interpret, and respond to stories;" its clinical practice demands the learner cultivate empathy, professionalism, reflection, and trust on the one hand, and the supple application of their "cognitive grasp of biology" with textual, affective, and creative skills on the other (Charon 2001, 1897; Charon 2006, 236). Being able to embody and practice both sets of skills simultaneously enables learners to use the self as a "potent therapeutic instrument" from which the *symphonic convergence* of relating, what we call narrative competence, emerges within the clinical encounter (Charon 2001, 1899). The ingenuity of narrative competence lies in its dual ability to speak in the language of medical education, with its emphasis on clinical competencies, while adding a novel dimension to the field's schema. As an act of conceptual blending, the concept, in turn, bi-directionally disarms and intrigues, makes familiar and strange, and remains graspable and beyond reach to any humanist or clinician encountering it for the first time (Fauconnier and Turner 2003). Given the friction generated by the assimilation and application of novel constructs, narrative competence produces a "lexical effect" that is assuredly smooth, even welcoming (Issac 2021). The concept invites the clinician to reconsider the ways they are or are not attending to the nuances of a patient's telling alongside the intersubjective dynamics that make such a telling possible; the humanist is equally invited to consider what lenses and methods within their own competence might facilitate learning for clinicians.

However, even if narrative competence directs learners toward enacting the aims of narrative medicine in vivo, they must first diagnose what part of this undertaking is most challenging, given their aptitudes, limitations, and contextual constraints. In any narrative work, one learner's sense of homecoming is another's shoreless navigation of unknown

worlds. Co-extensive displays of *absorbing* via close listening, *interpreting* via narrative analysis, and *responding* via empathic attunement may be a source of struggle or arrive with an innate deftness, depending on the learner. Narrative competence thus delineates what is required to perform it but does not explicitly teach learners how to chart the singular transformation of beliefs, attitudes, habits, and skills required to get there (Chu, Wen, and Lin 2020). Nor, we might add, does it capture the institutional snags that impede its formation.

The absence of guideposts for individual and organizational change is neither unique to the field nor the concept and is, in fact, a challenge shared by all organizations and movements. Heifetz distinguishes between technical and adaptive challenges precisely to enable the kind of diagnosis or map-making required. Take, for instance, the complexity of facilitating an ethical consult for a patient while managing the needs of a bereaved family and adhering to clinical directives. In such a case, the learner might respond to this challenge by restudying medical ethics or hospital policy, performing what to say, or accessing when it is most suitable to touch a bereaved family member on the shoulder to show support—all the while missing how their core beliefs and attitudes (amplified for better or worse by their context) make the task so difficult for them to begin with. In such instances, Heifetz observes how most organizations attempt to find technical solutions to adaptive problems, which results in a failure to address the issues at hand. To examine the adaptive features of any given challenge requires us to devise never-been-tried relational experiments, which cannot be easily overcome by current attitudes or training (Heifetz, Grashow, and Linsky 2009, 19).

Placed before Heifetz's observation, one grasps how narrative medicine's principles and practices, which counter a form of medical pedagogy that instills "a list of *correct* attitudes and affects," have long intuited the mistake of attempting to solve adaptive problems with technical solutions for learners and patients alike (Charon et al. 2017, emphasis added; Heifetz, Grashow, and Linsky 2009, 19). That is, the field has sought to reveal the irony of biomedicine's penchant for technical training by demonstrating how the grindstone it purports to be blunts the very instruments of care. The inseparability of close reading (technical) and reflective writing (adaptive) in the collective endeavor of narrative (adaptive) competence (technical) at the center of the workshop thus attests to the kind of relational experiments Heifetz has in mind to acquire the attitude and skills to "reach and join…patients in illness" (Charon 2001, 1897). And yet, without specifying each distinction, learners educated in a system that seeks technical solutions above all—whether it is a medical intervention, testing, or Continuing Medical Education credits—stand to miss the adaptive features of their unique diagnosis, which often remain latent and implicit within the content of their reflections.

Narrative here encompasses the constructed representation of a lifeworld (instancing the adaptive idiosyncrasies of the teller and listener), whereas "competence" specifies the context-salient tools to build and comprehend it. Even though patient simulation is not directly mentioned by Charon and colleagues, the associated (per)formative assessments epitomize the kinds of competency building she and her collaborators wish to expand. To specify what is adaptive versus technical in attaining narrative competence "redescribes" the concept to understand how and why clinicians practice narrative work (Felski 2015, 9). It also permits us to reexamine the role of healthcare simulation, most often delimited as a technical solution, in facilitating relational experiments for learners who may be more comfortable reflecting on the page. "Adaptive narrative competence" calls learners to

accurately identify what features of "absorbing, interpreting, and responding" are technical or adaptive to then seek opportunities for development at their growing edges, be it via the kind of exposure and risk offered by the narrative medicine workshop or via the "hot seat" of simulation. For instance, the act of interpretation—with its plethora of codes, associations, and frameworks—may appear to the learner as a purely technical endeavor but can, in fact, require "new [adaptive] strategies and abilities, as well as the leadership to mobilize them" in the clinic (Heifetz, Grashow, and Linsky 2009, 14). Much like the journey of professionalization itself, clinicians must undergo an adaptive "rearrangement," "displacement," and loss of their "DNA," an experience that is as painful and incremental as it is surprising (Heifetz, Grashow, and Linsky 2009, 14–15).

To treat this process solely as a technical problem, in simulation and medicine more broadly, impacts learners in three key ways: First, the imprudent suggestion that challenges can be solved via technical means without examining the prickly and sticky features of one's psychology (such as conflict avoidance, imposterhood, or maladaptive coping) as they are augmented by the constraints of the workplace (mis-management, bullying, overwork, or low trust and support). Consider the case of a conflict-averse trainee habituated to navigating situations strictly with theoretical insight without addressing their emotional discomfort or lack of support. In their case, learning more theory and knowledge of a standardized scenario would miss the core challenges that undergird their experience. The supervisor could, in turn, help the learner identify and avow the adaptive challenge instead of looking for solutions that obfuscate the issue. Second, teaching the virtues of empathy in technical and cognitively focused terms, such as honing one's affirming contact statements or using touch to deliver bad news, risks instilling empathy as a performance that can be acted *upon* the patient, not as an act of mutual recognition. At the extreme end, scholars have argued how technical empathy can become sociopathic if the interpersonal tools acquired are used to manipulate others (Breithaupt 2019). Finally, adopting a solely technical understanding of healing distorts clinicians' perceptions of patient recovery; framing healing as a matter of a patient's adherence to medication discounts the complex interplay between social determinants of health and the individual's personal narrative and family system, which modulate the adaptive challenges of their recovery (Thygeson, Morrissey, and Ulstad 2010).

To demonstrate how we exposit these challenges using simulated patients we now turn to CCPS. Table 1 outlines definitions and examples of technical and adaptive challenges to describe how the cultivation of narrative competence may contain features of both (Heifetz, Grashow, and Linsky 2009; Thygeson, Morrisey, and Ulstad 2010). There are also instances in clinical practice where the line between technical and adaptive challenges is less distinct, as a treatment can either include both or mistake one task for another. Notably, Thygeson uses the example of misdiagnosing "a technical challenge (e.g., lactose intolerance) as adaptive ('irritable bowel')" as well as emphasizing how "technical solutions can also be used to facilitate patient adaptive work" as a "patient with low back pain may need analgesia in order to perform strengthening and stretching exercises to restore spinal structural integrity and resilience" (Thygeson, Morrisey, and Ulstad 2010, 1010). Charon's (2006, 197) encounter with her patient, Mr. Morales, in which she decides to pay for his yearly membership to the city gym, is another example of how resolving a technical problem (in this case, a lack of funds) can unleash a patient's ability to undertake the adaptive work of daily exercise.

Table 1 Differentiating Technical and Adaptive challenges within Narrative Competence

Challenge/ Problem	What is asked of the patient/ learner?	Clinical	Organizational	Narrative Competence
Adaptive (narrative)	The "self-regulatory strength" to navigate the tradeoffs, experience of loss, and inevitable resistance to behavior change that can be supported by others but only undertaken by oneself.	Managing work stress and coping, psychotherapy, adapting to increased responsibility from a promotion or new leadership position, living with a chronic illness, adopting a healthier lifestyle.	Altering the incentive structure of technical procedures in favor of preventative interventions. Implementing policy that focuses on the social determinants of health for clinicians and patients.	Reappraising one's attitude toward patients to honor their 'thick story' and sit in the discomfort of their suffering. Expanding one's relationship to expertise and professional identity to include uncertainty, vulnerability and reciprocity.
Technical (competence)	The ability to consistently utilize one's expertise to deliver a treatment, diagnosis, or procedure. Acquiring a skill to support the health of oneself, a patient, or a family member.	Prescribing medication, rehabilitation techniques, and surgical and therapeutic procedures.	Reducing log in times on health systems to mitigate clinician burnout or establishing wellness programs and initiatives for clinicians.	Learning close-reading and textual analysis. Internalizing and deploying a range of narrative frameworks and lines of questioning (time, space, plot, character etc.) throughout clinical practice.

Examples adapted from Heifetz, Grashow, and Linsky (2009) and Thygeson, Morrisey, and Ulstad (2010, 1009–10).

What Is CCPS?

What does the soul want? It wants fictions to heal.
—James Hillman, Healing Fiction

The development of CCPS aligns with Charon's (2006, 13) framing of narrative medicine as "not so much a new specialty as a new frame for clinical work." CCPS follows the basic structure of case study development for simulated clinical scenarios using paid actors: a case study is devised via preparatory rehearsals with actors and lead facilitators to outline learning goals that are enacted and debriefed with learners. However, CCPS creates a "new frame" (outlined in six points below) as a learner-centered methodology, which fosters meaningful learning experiences in alignment with trainees' self-identified learning goals (Martin, Chilton, et al. 2020; Martin, Weller, Amsalen, Duvivier, et al. 2021). The impetus for CCPS stemmed from the observation that case studies intended to support learners' professional development are often instructor-led, unwittingly missing the opportunity to draw on the clinical experiences of learners when forming a community of practice (Wenger 1998). Given the stepwise transition from medical student to resident and colleague, we also wanted to model a co-creative space that would enable learners to reconfigure their relationships with faculty in preparation for their entrance into the medical guild.

Our first paper described the six phases of co-construction and their supporting theoretical underpinnings (Martin, Chilton, et al. 2020). Notably, we integrated Schweller et al.'s (2018) call for simulation to be "turned upside down," Paulo Freire's (2000) "two-way street," along with self-regulating and self-directed learning theory, to challenge hierarchical divides and center learners' needs in case study design. We also documented the breadth of learners' experiences, capturing incidences ranging from Asian hate during COVID-19, transphobia, disclosing an HIV diagnosis to a colleague, racism, suicidal ideation, and sexual abuse to communicating a patient's porn use and SSRI medication to a parent to name just a few. Our second paper, "From Learning Psychiatry to Becoming Psychiatrists" (Martin, Weller, Amsalen, Adigun, et al. 2021), outlined a "9R" model of reflection derived from our qualitative data. Drawing on Schön's (2017) modes of reflection (*in*, *on*, and *for action*), the model outlined the learner's cycle of reflection and response within the clinical encounter, beginning with the need to emotionally regulate themselves and the patient, followed by relating and reasoning to facilitate a course of action. Recent iterations simplified CCPS to focus on the "core Rs" (Regulate, Relate, Reason, Reflect) to enable wider adoption for clinicians across a breadth of specializations, including veterinary medicine (Spruijt et al. 2022). Our present introduction to narrative medicine and the health humanities follows this simplification by redescribing the six phases as three restorative movements: (1) Resensing (the learner reflects on their challenging experiences and shares them with their supervisor and/or collaborators); (2) Retelling (the learner drafts their narrative and revises and roleplays with collaborators and SP); (3) Retooling (the learner witnesses peers and/or supervisor enact the case with the SP followed by a debrief).

The six novel features spread across each movement include: (1) An attention to the narrative construction of the case study as a text itself, focusing on the representation of patient identity and social context alongside their medical history. (2) The emphasis on case study writing as a *"healing auto-fiction"* through which learners can fictionalize parts of their experience to dramatize their adaptive challenges while still preserving the clinical facts at the center. Fictionalizing departs from standard practice, including

the use of reflective writing, where there is an expected fidelity to clinical facts and accounts of the self. (3) An emphasis on "vector goals" over learning outcomes to invite non-formative and non-summative inquiry across all phases of learning (Doyle 2021). Vector goals, defined below, help writers identify their intended *direction* of learning without imposing a point of arrival (performing a series of 'correct' actions) on themselves or their peers. (4) A deeper involvement of the SP as a co-learner and contributor to case study design and feedback (both in role and de-rolled). (5) The use of the rehearsal as an opportunity for the learner to reinhabit their clinical role, yielding new insights and strategies later enriched by the group. (6) The opportunity for learners to invite supervisors to participate in the "hot seat" of the reenactment by remaining blinded during case study preparation. Placing the supervisor in the hot seat adds another dimension to Martin, Chilton, and colleagues' (2020) use of self-disclosure of personal hardship and failure to normalize the help-seeking behaviors of medical learners. In CCPS, the learner witnesses the supervisor improvise in real time and share their challenges and mistakes during the debrief, thereby extending the humanizing effects of self-disclosure. To demonstrate how these six features are implemented within the three movements, we turn to a composite case derived from our cohorts of learners, which we have redescribed through our conception of adaptive narrative competence and fictionalized in parts to honor their request for anonymity.

Table 2 below describes the sequential movement of each step along with the reflective aims for debriefing each stakeholder and formulating the learner's healing auto-fiction. Rather than pit healthcare simulation, narrative medicine, or even mindfulness against each other as *the* most efficacious mode of inquiry, we include a provisional list of practices, most likely familiar to learners, which can be used concomitantly within each step. In doing so, we wish to emphasize how the boundaries between each discourse and method are porous enough to be deployed toward mutually enhancing ends. Recognizing this, we insist, extends what Karl Jaspers called "methodological consciousness," whereby the learner acquires the sensitivity to identify, combine, and deploy the methods appropriate to the clinical situation (Ghaemi 2009, 4). By instilling this form of pluralistic awareness across medical education, learning communities can stave off any temptation of asking too much of one practice.

Unclasping the Grip of Failure: Welcoming the Learner

The learner, DU, entered the drafting process unconfident about writing but still wanting to volunteer. On the verge of graduation, there was a lingering doubt as to what he would do next. The clarity of direction he observed in his peers churned him inside as he pulled on the tender threads of his clinical years. One led to a patient he encountered early on in his psychiatry residency during an intake interview wherein, missing key questions of safety that would have led to him determining the need for hospitalization, the patient committed suicide that evening. The brief lapse of judgment—spurred by a desire to prove himself to his supervisor—lodged inside him. The memory of his lapse inflected every clinical decision with an overabundance of caution and left him feeling as if he was "doing the business" of psychiatry yet numb to the "fuzzy wuzzies" of connection he knew were essential for working with children and adolescents. Another thread led to an interaction with a "callous" adolescent patient who, having been admitted to the in-patient unit after a night in police custody, tried to manipulate the learner for a prescription of opioids, resulting in a heated

Table 2 The three restorative movements of CCPS. The three movements of CCPS with definitions and reflective questions for devising and debriefing in workshop settings.

The cycle of adaptive narrative competence	**1. Resensing** *The art of presence and reconnecting*	**2. Retelling** *The art of narrative inquiry and the imagination*	**3. Retooling** *The art of learning*
Definition	The act of attending to the emotional terrain of the composite narrative before rushing to solutions or learning goals.	The act of recursively narrating and redrafting a composite narrative until its emotional and adaptive features are described in all their complexity.	The act of collaboratively imagining pathways of future action from an intimate understanding of the adaptive challenges the narrative elicits for the individual and group.
Coextensive practices, e.g.	Mindfulness, close listening, movement and embodiment-awareness practices.	Expressive/reflective writing, narrative medicine, psychotherapy, art, drama, film, mastermind groups.	Simulation, team and skills building, executive coaching, skill-building, leadership training.
Vector prompts for co-devising and debriefing			
Writer-learner	What exactly was so challenging to me about this composite of experiences? Which emotions have I left unattended?	Why do I want to offer this narrative to the group now? What fictional elements might I add to draw out adaptive challenges of myself and my institution?	How can I build my adaptive capacity with the support of my colleagues?
Supervisor	What are the untended emotional challenges of your experience that we can examine to support your growth and our collective learning?	Which features of your clinical identity do you rely on when challenged that we can explore through your healing auto-fiction?	What bi-directional commitments can we create together to support you to navigate complexity in the future?
Collective	What are my emotional tender points within this case? What is this story asking of me as a witness and participant?	What can I learn from both the case study and how I contribute to the group? What aspects of this case unsettle my own professional identity?	How can I support my colleague to examine their adaptive challenge and extend their learning?
Affinity Frameworks			
Narrative Medicine (Charon et al. 2017)	Attention	Representation	Affiliation
Three forms of Narrative Competence (Montello 1997)	Departure	Performance	Change

Table 2 (continued)

The cycle of adaptive narrative competence	**1. Resensing** *The art of presence and reconnecting*	**2. Retelling** *The art of narrative inquiry and the imagination*	**3. Retooling** *The art of learning*
Adaptive Leadership Heifetz, Grashow, and Linsky (2009)	Observe	Interpret	Intervene

conflict. The patient's mother called him to scold her son as the "devil's spawn" that was "good for nothing," exacerbating his unease. Stirred by the resonances between their family histories, DU felt he "over-corrected" by siding with the mother, thereby coldly dismissing the teen's needs as he was more focused on upholding his clinical ethics. Just like the first encounter, DU was left reeling from a missed opportunity for connection that could have helped the teen feel like he had an ally entering the unknowns of the inpatient unit. Sharing both accounts left DU visibly unsettled. We set about crafting a narrative case study that wove together these two world-shaping experiences into a healing auto-fiction, one from which he could reimagine a novel set of possibilities for himself at each stage. AM, the supervisor of the simulation program, decided he should not be involved in the case study creation and instead take the position in the hot seat with the actor.

Resensing: Venting the Event

Learner prompts: What exactly was so challenging for me about this composite of experience? Which emotions have I left unattended?

Supervisor/Collaborator prompts: What are the emotional challenges of your experience that we can examine to support your growth and our collective learning?

> DU: The first time I failed was in Michigan. I was a psychiatry resident early in my career. I knew I had been scheduled to meet with a senior supervisor later in the day. I didn't know more than that. A patient arrived for an intake interview. I don't remember much about them, but I do remember how hard I worked to ingratiate myself to connect. The patient was sullen and quiet, probably with some chronic psychotic disorder. By the end of the meeting, I felt I had done a great job. I liked the patient and I felt so good the patient liked me and connected with me, or so I thought. After relaying my interview to my supervisor, I was surprised, saddened and disappointed when I realized I had not even come close to some of the critical questions regarding safety: "do you have any suicidal or homicidal thoughts," along with the usual panoply of must-ask psychiatric questions. My suspicion was confirmed that night when I learned he had completed. Devastated, guilt-riddled, that early narcissistic injury was there and had to be overcome.

Listening to DU's reflection during an opening call, we (a writer, child psychiatrist, and SP) sensed the contours of his affective terrain. In the heat of his statement, we noticed the oscillations from uncertainty, confidence, and pride to self-doubt, sadness, guilt, and shame over the course of a day. At this stage of case study development, we simply invite learners to chart the full range of their emotions during a one-hour conversation and guide them back to their sense experience whenever solutions are prematurely posed. *Resensing* a clinical challenge, for the sake of individual and collective learning, recasts an often-isolating experience into an embedded group reflection through which all learners grapple with their imperfections and triumphs in equal measure. Resensing is the act of attending to the emotional terrain of the composite story without rushing to solutions (learning goals) that might assuage the discomfort of uncertainty. Resensing captures the movement toward a difficult emotional experience in which the learner, collaborators, and occasionally the supervisor must practice regulating themselves. The concept has an affinity with Charon and colleagues' (2017) use of "attention," which describes the unhurried presence offered to another when listening to their illness story.

Attention calls for the "listening self as a vessel" activated via a "state of heightened focus and commitment that a listener can donate to a teller" (Charon et al. 2017, 3). Where attention emphasizes the primacy of close reading or "slow looking," resensing expands the frame to include all sensory inputs, including one's interoceptive (gut feelings or intuition), proprioceptive (the sense of their body in their environment), and nociceptive (their ability to notice pain) abilities. The curl of a lip, the churn of the stomach, a rip of a nail, or the quail of an eye all cue us into the somatic reverberations of the event, often left implicit in the learner's narrativized "ways of making meaning" (Charon et al. 2017, 170). To this effect, resensing follows social psychologist Ellen Langer's definition of mindfulness, which eschews Eastern monastic philosophy and practice, to instead describe a cultivated attitude of "basic curiosity" toward finding novelty within spaces we otherwise take for granted as already known (Fatemi and Langer, 2018). By listening carefully and modeling open-ended observations, in ways familiar to narrative practitioners, we find that the group starts to move toward a basic curiosity of experience alongside their clinical acuities.

The practice of toggling between modes of experience requires learners to depart from their working schema of healthcare simulation, where their attention is filtered through learning objectives. The first form of narrative competence for Montello (1997) charts a similar kind of *departure.* Departure, for Montello, marks the reader's transportation into the lifeworld of the narrator from their own lived reality. The process of immersion and transportation, to be in the world but not of it, bespeaks the clinician's need to tarry between "empathic understanding and critical detachment" (Montello 1997, 192). If Montello invites the clinician-reader to move between states, Heifetz's observation requires individuals to remove themselves from the situation entirely and take to the "balcony" to "objectively" capture the facts and "patterns of behavior…without any interpretation" (Heifetz, Grashow, and Linsky 2009, 33). Observation for the learner, in this regard, is not so much a practice of distancing but learning to feel more fully before attempting to transport themselves into the lives of their patients. Resensing enjoins the group in this task of learning to observe the emergent features of the telling that might form the center of the case study. Any known challenges, along with perceived gaps in training and systemic failures, are refracted through the supervisor's and writer's prior knowledge of the wider learning needs in the group. Even though a collaborator or supervisor might identify an adaptive challenge from the learner's initial reflection, the aim is to bracket any working hypotheses and let the learner come to it themselves. To be observant when resensing is not to be detached in the way clinical reasoning demands but instead to serve as a pathfinder attuned to the varied waypoints of individual and collective learning.

Retelling: Shaping the Event

How we figure tells us more about the figure itself.
—J. H. Phrydas

Learner: What features of your clinical identity do you rely on when challenged that we can explore through your healing auto-fiction?

Supervisor/Collaborator: What can we learn from both the case study and how we each contribute to the group? What aspects of this case unsettle my own professional identity?

After our preliminary discussion, DU is given a case study template for their healing auto-fiction, which is broken into sections: vector goals for the session, intended learners

and session flow, case summary, relevant background of the patient's life history, a "door note" summarizing the case for learners during the reenactment, and directions for the SP. We inform learners they will receive guidance during the rehearsal and refinement of their text, but the first step is to retell their composite narrative unaided. Our conception of retelling draws on Edward K. Rynearson's (2001) therapeutic sequence of "restorative retelling." Restorative retelling stems from the psychiatric grief literature on violent death and has become central to our approach to guiding learners through the iterative development of their composite narratives. In its original context, the concept describes the therapeutic task of reconstructing a patient's ground of meaning via recursive retelling for incidences, such as suicide, shootings, or motor accidents, where they have been denied the gradual preparation of their loss.

It is through a patient's "restorative exposure" to the trauma, alongside a sensuous account of the deceased's biography (remembering the joys and milestones as much as the loss), that Rynearson (2018) deactivates the intrusive thoughts of their post-traumatic experience. While Rynearson's approach remediates a particular manifestation of complicated grief, we find his attention to the power of re-narration as a core feature of psychological healing apt for medical education. Practitioners will notice retelling's affinity with the "externalizing act" of writing and sharing to yield a quality of insight a verbal account rarely affords (Charon et al. 2017, 215). Both concepts capture the movement from internal to external, subject to object. Yet, Rynearson's retelling differs in its slow iterative approach whereby the same story is told over multiple sessions until the patient can recontextualize the traumatic event amid the deceased's life course (unlike reflective writing prompts typically set between five to ten minutes and immediately shared). Once the learner has drafted their composite narrative, the collaborative retelling begins. DU joins the meeting to outline the features of his narrative and the salient goals he identified for himself and, by extension, his colleagues. DU reads his written instructions for the session to the group of collaborators:

1. The clinician needs to be able to perform a safety and weapons assessment; 2. To both establish a therapeutic alliance and set professional boundaries with a patient irrespective of their behavior; 3. To learn how to navigate the impingements of transference and countertransference as they surface in the pressures of the moment.

Collaborator: Out of what you shared, what is the most important goal for you?
DU: I just want them to be able to assess patients in difficult circumstances.
Collaborator: I hear that, but if you were to return to that moment with your patient, what would you have liked them to know?
DU: That we are closer than he thinks, that I got caught up in my head, that I could have been him. I wanted to help but I couldn't face it when I met him. There was just too much in the way.

Note the two threads of patient encounters braid into one jagged cord, one that restricts the improvisational capacity of DU caught in the bind of having cared too much or not cared enough. Recalling Heifetz's distinction, DU's objectives contain both adaptive and technical problems. The former is implied in the task of learning to remain calm and connected with the patient despite his conflict aversion and disquieting transference, whereas the latter remains implicit in seeking further training for conducting assessments. Beneath the stated objectives and narrative of the learner lies a core yearning or a hidden

commitment attempting to resolve itself for future encounters where there will be no easy answers (Kegan and Lahey 2009; 2001). Flattening the complexity of DU's vicissitudes into binary goals would only bolster the reductivism of measurement that Charon and Hermann (2012) warn against. Instead, we frame the learner's objectives as *vector goals* from which they and their colleagues can move toward knowing the reenactment is a relational experiment without a point of arrival.

The concept of vectors is commonly applied in architecture, physics, and mathematics. However, we draw instead on Dave Snowden's vector theory of change (Doyle 2021). Working within complex systems (society, business, government), Snowden noticed how organizing teams around a binary conception of "targets" diminished the intrinsic motivation of the employees and disrupted opportunities for amicable collaboration. Traditional approaches to goal setting, derived from working backward from a goal to achieve a specific outcome, "break goals down into isolated problems, where complex systems are defined by the interconnections and entanglements between parts" (Doyle 2021, 1). Snowden draws on the biological phenomenon of the "adjacent possible," which describes everything that is achievable within a system's current state; a single cell, for instance, does not jump to become a complex organ but rather gradually increases in complexity to form a multi-cellular organism (Doyle 2021, 2; Kauffman 2008, 100). For learners, "vector goals" are thus a series of focused intentions a group can take *the next step toward* building their adaptive capacity. Facing a future unaided by supervision or formative assessment, vectors help clinicians imagine themselves as lifelong learners navigating complex environments that change and evolve throughout their careers.

During our meeting with DU, collaborators (a child psychiatrist and a writer), and the SP, we continue discussing the case, having identified the core yearnings that undergird their vector goals: to craft a scene that normalizes the challenges of conducting an assessment when "care is under pressure" so the learner feels less alone with their inner conflict (Carrieri et al. 2018). During our discussions, each member filters the narrative through their prism of knowledge. The child psychiatrist speaks up to address what medications might be discussed and what cues the learner wants to provide for the SP to deepen the clinical fidelity in accordance with their vector goals. For instance, we might posit at what point the learner might defer to their supervisor during the simulation if the SP escalates the conversation. The writer, DU, builds on the clinical facts to address the text's narrative arc, along with the learner's choice of language, whereas the SP supports character development. As the Phrydas epigraph suggests, pointing to how the learner gives an account of themselves and the patient reveals the idiolect of their meaning-making in a way reenactment alone cannot provide. By the writer and the SP responding to the teller's choices, we enter the reciprocal flows of attention and representation whereby "one person attends, [while] the other represents" (Charon 2006, 140), making what was heard "newly visible to both the listener and the teller" (Charon et al. 2017, 3). In this way, vector goals parallel the use of writing prompts where the aim is to open spaces for thinking and responding to the adjacent possibles of each learner's narrative without delimiting them; in other words, the prompt's implicit theme roves toward an affective milieu, just as the vector goal sets the direction of learning.

Heifetz's notion of interpretation likewise calls the reader to "listen to the song *beneath* the words" by asking the learner, "What are some alternate hypotheses" for my situation? … What *underlying* values and loyalties are at stake?" (Heifetz, Grashow, and Linsky 2009, 34, italics our own). Heifetz, in turn, seeks to open a range of perspectives for teams to loosen the fixity of resorting to tried solutions. Even though Heifetz does not draw on narrative studies as the ground for his questioning, the act of interpretation is nevertheless

narratively driven. Montello's second form of narrative competence describes the reader *performing* the role the text asks of them. Namely, to join the lifeworld of the text so that the reader sees beyond themselves to glimpse "multiple alternatives and consequences to our ideologies and ethical choices" (Montello 1997, 193). Performing, for Montello, rejects the turgid mimicry of attitudes, behaviors, and beliefs (i.e., *performative)* in favor of the kind of perspective taking Heifetz entreats: acts of interpretation that unsettle the learner—via a self-implicating multiplicity of views and values—as much as they edify them. Narrative considerations of plot, character, and time enable learners to perform their own text to both reexamine their ethical choices and identify the adaptive stakes of their situation reflected by their collaborators.

> Collaborator: Now we've addressed your goals and touched on your writing, let's move on to the rehearsal. We invite you to reenter the scene with your simulated patient with the added insight you gained through writing and reflection. We will go for 5–10 minutes and see how you get on and then we can discuss your experience and how it can help revise the case for your colleagues.

Typical dry runs pinpoint the "missed objectives" and "weaknesses" of the script (Watts et al. 2021; Bambini 2016). The supervisor and simulationist assess the "psychological fidelity" of the scene to calibrate the optimal level of challenge for learners so as not to wholly frustrate them (Blaskó et al. 2017). The dry run within CCPS affords the writer a novel opportunity to conduct a similar assessment, albeit via reinhabiting themselves in the co-constructed role, having metabolized their original encounters through resensing and retelling. Reinhabiting the scene clarifies the aims of the learner in a way a discussion of the process cannot provide. The absence of a rubric during rehearsal can unnerve learners further as the pursuit of a grade is supplanted by an experiment in *gradation* where all shades of experience are welcomed. Despite our collective encouragement of DU, the specters of judgment and inner criticism from his training inevitably reveal themselves; DU notices the shifting relationship with their supervisor, AM, but cannot quite bracket the asymmetries of power and examination that governed his progression to fellowship. And yet, the opportunity to direct the scene and one's place in it—that is, to reimagine otherwise painful events as invitations for the creativity and solidarity of the group—remains unmistakably freeing.

> DU: I was surprised to see how similar [the rehearsal] was, and equally surprised to see how I reacted to it. I realized I needed to reexperience myself in my own scenario before letting other people try it. It was different than what I was expecting, but also ran in a way that I was able to digest the process, what I was originally wanting and how it can all change. It was a great lesson.

Implicit in DU's final reflection on CCPS is the simple yet potent reminder that we, as professionals and human beings, are always learning. Incorporating the writer's feedback without providing the opportunity for re-immersion misses the fecund ways the rehearsal becomes a pedagogical event in and of itself and not just a means of preparation. DU's task of calibrating the script for their colleagues permits him to *re-hear*, imagine, and anticipate the group's needs with an embedded familiarity with their cohort not afforded to supervisors. The rehearsal is followed up with further correspondence to implement any edits and support the SP's final preparations for the day of the simulation.

Retooling: Honing the Event

Learner: How can I build my adaptive capacity with the support of my colleagues?

Collaborators/Group: What bi-directional commitments can we create together to support you in navigating complexity in the future?

Retooling encompasses both the reenactment and the debrief. During the reenactment, two learners typically play the same clinician to create a continuous clinical scene, switching out halfway through. Both are given approximately 20 minutes each to respond to the veiled vector goals tailored to each portion of the scenario. For instance, the first learner might be implicitly tasked to emotionally regulate the patient and field their concerns about unjust treatment, whereas the second learner could be tasked to conduct a formal assessment to determine an appropriate course of action (speaking to a supervisor or involving a parent). The group then reassembles to debrief, as common to most simulation protocols. The learners working with the SP during the simulation offer their comments first, followed by their colleagues, and finally, the writer (DU) and the SP, who speaks both as their character and as a professional actor who immersed themselves in the role. Each round of reflection strives for the kind of affiliation described by Charon (2006) and Charon et al. (2017).

Affiliation "results from deep attentive listening and the knowledge achieved through representation, [that] binds patients and clinicians, students and teachers, self and other, into relationships that support recognition and action as one stays the course with the other through whatever is to be faced" (Charon et al. 2017, 3). The reciprocal opening of the listener and the teller within the narrative medicine workshop creates the holding environment necessary for multi-perspectival engagement; unlike Donald Schön's (2017) reflection "in," "on," or "for action," however, the facilitator does not push for a clear statement of future action. Montello's (1997, 195) notion of *change* similarly recognizes how "reading changes readers … [whereby] each set of fictive experiences weaves a thread in the complex texture of the reader's understanding and alters the picture as a whole." Yet, even if the learner recognizes such an alteration has taken place, Montello's aim is more to insist that change is fundamental to narrative competence without offering any normative prescriptions of what learners *ought* to do.

Retooling within CCPS recognizes the need for outcomes, or vector goals, to structure healthcare simulation while still aiming to channel the reflective reservoir of affiliation that defines the narrative medicine workshop. By insisting learners first progress through resensing and retelling, we challenge the tacit belief that any *explicit* articulation of future action occludes the *implicit* effects of exploratory (atelic) learning found in reading and reflective writing. For instance, we encourage learners to probe their clinical approach to clarify intent, describe emotional difficulties, and offer conjecture from the "balcony" to foster a *distributed narrative competence* within the group.

To create the kind of distance Heifetz implores for accurate diagnosis, CCPS invites all participants to query: "Where has your training failed or disappointed you?"; "Why was this composite of experiences so challenging—or rewarding, or validating?"; "What do you want to complete *now* or in the future that you could not complete at the time?" One learner (TR), who replaced the supervisor, AM, in the hot seat during the second half of the simulation, commented in her debrief to the group:

> The main emotion I was feeling going into the interview was guilt. My brother had come to visit my family and was leaving today. His flight is taking off in the evening which means he will have to leave my house early to avoid missing his

> flight. This means I will have roughly an hour with him after work. I wonder how present I felt with the patient. I thought I was able to be compassionate towards him despite my preoccupations, but I wonder if I could have done more if I was not saddled with guilt.

Admissions of the inevitable intrusions of family life normalize dialogue surrounding the flux of clinicians' capacities. TR's feelings of guilt and regret elicited the supervisor's reflection on his past failures. Having worked alongside TR in the hot seat, AM reflects on an analogous experience:

> I was sitting for my adult boards in New Jersey, I still remember, and I came out of the interview with a patient feeling pretty good. Not a "slam dunk good" but a "pretty good good." Let's scratch that, I mean I will just say that I failed that boards test again, although not for the same reason, but I'm talking about things that made me think about it, and about this string of failures and of letting myself down.

Not only do CCPS supervisors disclose and write an emotionally difficult case study that personally affected them, but they also open themselves to failure when they are working with the SP in character. Much like sharing prompted free writing in a group, the opportunity for learners to witness their supervisor models a vulnerability-based leadership through which their very conception of clinical professionalism becomes redefined. For DU, who was hesitant to craft his case to begin with, AM's admission was a source of comfort and relief. Summarizing his experience of the three movements of CCPS, DU describes his redefinition in his own terms:

> I think one of the things I learned about myself and [my] colleagues are just the different styles of interviewing. Just to see the differences, seeing how my colleagues did, was probably the biggest learning takeaway for me. It's almost comparing apples to apples in the same scenario. Something that I had struggled with was not seeing how my colleagues practiced in real life. I think that probably was something I realized right when the interview was going on. When I saw the interviewers ask the right questions or use the right approach with this really challenging case, those were moments when I was really celebrating. This is a fantastic learning experience, and I will take this approach into the future as well.

Witnessing his supervisor and colleague work through his case study with the SP unsettled DU's long-held value judgment of prizing one interview style over his own. The act of celebrating learners' competencies pulled him out of his isolating perfectionism and into a greater sense of affiliation. Freed from the strictures of assessment that defined their prior exposure to simulation, we find mature learners become more receptive to appreciating the clinical styles of their peers. Retooling for writers like DU means they not only carry forward the clinical styles and reflections of their peers but also the self-trust to greet any adaptive challenge they will likely face in their clinical work beyond graduation.

Given DU's avowal of the "right questions" and the "right approach," it would be remiss not to mention instances where the writer's intentions are not enacted in the manner they envisaged. For instance, several learners felt intentionally "set up" or "caught out" having not "accomplished" the vector goal later revealed in the debrief. These moments attest to the reality that even if facilitators explicitly shift the frame of learning, learners still subject themselves to a level of self-assessment and stratification that leaves them

disengaged if not handled sensitively. The task of retooling is precisely to create "safe-to-fail" opportunities for learners to examine how and when their cherished strategies fail so they are not blindsided in the clinic (Doyle 2021). It is also to prepare learners to imaginatively confront how the tools they have used to succeed within their education are likely insufficient to navigate the complex environments that await them.

Conclusion and Limitations

As the delivery of healthcare becomes increasingly complex, the demands placed on clinicians and medical students continue unabated. Helping learners navigate the uncertainties of their profession requires us to develop bridging frameworks and concepts that reveal the adjacent possibles within their contexts via challenge and support. Only then can we aid learners in understanding the adaptive tasks before them instead of normalizing a culture primped with platitudes of affirmation and the masking of our shared fallibility. Medical education can do a better job of synthesizing frameworks and practices throughout the course of a student's training to provide a broad range of tools ready for their disposal.

However, even if CCPS extends the aims of narrative medicine into other higher-pressure domains of practice, any proposed synthesis does not resolve the respective limitations of either field. Narrative-based inquiry, be it CCPS or otherwise, is not for everyone and takes considerable time, leaving many looking for other means of development and support. In CCPS, we have largely focused on working with simulated patients and learners who are located at a particular juncture in their training where they have the unique advantage to draw from the span of their clinical education. How CCPS might serve the adaptive challenges of the fledgling medical student or be transposed to work with high-fidelity mannequins or virtual reality remains to be examined. CCPS also comes with the added constraints of complicated logistics, the availability of professional actors, financial costs, and resource-intensive scheduling for all involved. Having demonstrated the role narrative practitioners can serve alongside professional simulationists, we hope some of these can be allayed by greater interdepartmental involvement.

Given the depth of what CCPS asks of its learners, one also might ask: What happens next? What becomes of the writer and supervisor who have opened themselves to group learning in all the ways we have described? Presently, we neither possess prospective data to know how participants were affected in subsequent months, nor do we know if their clinical or educational practices changed as a result. Yet, we do know several participants were deeply affected and inspired, having gone on to adapt and replicate CCPS's methodology in their unique contexts, whether it is through their international collaborations (Danieli et al. 2014), applying CCPS in their native language (Çamlı et al. 2024), or to strengthen interactions and reflection at international meetings (van Hoof et al. 2024). As a future research direction, a systematic assessment using qualitative methods could inform the longer-term impact of CCPS on its participants.

More crucially, however, CCPS fundamentally unsettles the siloes of medical education, out of which the entrenched charges of the "performative" and "robotic" work of healthcare simulation versus the "humanistic" and "empathic" work of the humanities are woefully maintained. Helping learners strive to practice narrative competence in their own style and with their distinct aptitudes and challenges remains critical to building interdisciplinary alliances outside of the health humanities; after all, other practitioners, too, seek to develop reflective clinician-leaders, albeit from different literatures but with confluent aims.

Acknowledgments This paper was supported in part by the Riva Arielle Ritvo endowment at the Child Study Center, Yale School of Medicine.

Author contribution IW conceptualized the paper's concepts, theory, and frameworks and wrote the complete draft. MS provided critical manuscript revision and idea development. MCF contributed to the final revision of the manuscript and the development of the CCPS methods and frameworks. AM devised the original form of CCPS that is the basis of the paper. He also co-wrote the introduction on healthcare simulation and CCPS, supported idea development, provided revisions to the paper, and prepared the manuscript for submission.

Funding No sources of funding were sought for the development and writing of the paper

Declarations

Financial or non-financial interests The authors have no relevant financial or non-financial interests to disclose.

Ethical approval Not applicable

This paper did not require IRB approval.

Informed consent Not applicable. This paper did not use research subjects.

References

Alinier, Guillaume. 2007. "A Typology of Educationally Focused Medical Simulation Tools." *Medical Teacher* 29 (8): e243–e250. https://doi.org/10.1080/01421590701551185

Bambini, Deborah. 2016. "Writing a Simulation Scenario: A Step-By-Step Guide." *AACN Advanced Critical Care* 27 (1): 62–70. https://doi.org/10.4037/aacnacc2016986

Blaskó, Ágnes, Krisztina Komlós, Gábor Fritúz, and János Gál. 2017. "How to Enhance Psychological Fidelity in Simulation-Based Medical Education." *Medical Education* 51 (11): 1179–1179. https://doi.org/10.1111/medu.13432

Boal, Augusto. 2006. *The Aesthetics of the Oppressed*. Translated by Adrian Jackson. New York: Routledge.

Breithaupt, Fritz. 2019. *The Dark Sides of Empathy*. Translated by Andrew B. B. Hamilton. Ithaca, NY: Cornell University Press.

Brenner, Adam M. 2009. "Uses and Limitations of Simulated Patients in Psychiatric Education." *Academic Psychiatry* 33 (2): 112–19. https://doi.org/10.1176/appi.ap.33.2.112

Carrieri, Daniele, Simon Briscoe, Mark Jackson, Karen Mattick, Chrysanthi Papoutsi, Mark Pearson, and Geoffrey Wong. 2018. " 'Care Under Pressure': A Realist Review of Interventions to Tackle Doctors' Mental Ill-Health and Its Impacts on the Clinical Workforce and Patient Care." *BMJ Open* 8 (2): e021273. https://doi.org/10.1136/bmjopen-2017-021273

Charon, Rita. 2001. "Narrative Medicine: A Model for Empathy, Reflection, Profession, and Trust." *JAMA* 286 (15): 1897–1902. https://doi.org/10.1001/jama.286.15.1897

Charon, Rita. 2006. *Narrative Medicine: Honoring the Stories of Illness*. Oxford University Press, USA.

Charon, Rita, Sayantani Dasgupta, Nellie Hermann, Craig Irvine, Eric R. Marcus, Edgar Rivera Colon, Danielle Spencer, and Maura Spiegel. 2017. *The Principles and Practice of Narrative Medicine*. New York: Oxford University Press.

Charon, Rita, and Nellie Hermann. 2012. "Commentary: A Sense of Story, or Why Teach Reflective Writing?" *Academic Medicine* 87 (1): 5–7. https://doi.org/10.1097/ACM.0b013e31823a59c7

Chu, Shao-Yin, Chin-Chen Wen, and Chi-Wei Lin. 2020. "A Qualitative Study of Clinical Narrative Competence of Medical Personnel." *BMC Medical Education* 20:415. https://doi.org/10.1186/s12909-020-02336-6

Danieli, Polina Perlman, Mark D. Hanson, Lindy VanRiper, Marie-José van Hoof, Isaiah Thomas, Jordan Sibeoni, Pascal Raats, et al. 2024. "Psychiatric Clinical Training Across Borders: Developing Virtual Communities of Practice Through International Co-constructive Patient Simulation." *Academic Psychiatry* 48:1–6. https://doi.org/10.1007/s40596-023-01880-9

de Carvalho Filho, Marco Antonio, Adilson Ledubino, Letícia Frutuoso, Jamiro da Silva Wanderlei, Debbie Jaarsma, Esther Helmich, and Marcia Strazzacappa. 2020. "Medical Education Empowered by Theater (MEET)." *Academic Medicine* 95 (8): 1191–1200. https://doi.org/10.1097/ACM.0000000000003271

de Carvalho-Filho, Marco Antonio, René A. Tio, and Yvonne Steinert. 2020. "Twelve Tips for Implementing a Community of Practice for Faculty Development." *Medical Teacher* 42 (2): 143–49. https://doi.org/10.1080/0142159X.2018.1552782

de la Croix, Anne, and Mario Veen. 2018. "The Reflective Zombie: Problematizing the Conceptual Framework of Reflection in Medical Education." *Perspectives on Medical Education* 7 (6): 394–400. https://doi.org/10.1007/s40037-018-0479-9

Doyle, Linda. 2021. *Change & Complexity: Vector Theory of Change*. Cynefin Centre, December 2021. https://cdn.cognitive-edge.com/wp-content/uploads/2022/02/02160119/VTOC-paper-2022.pdf. Accessed 01–25 Sept 2023

Çamlı, Şafak Eray, Büşra Ece Yavuz, Meliha Feyza Gök, Idil Yazgan, Yanki Yazgan, Ayelet Brand-Gothelf, Doron Gothelf, Doron Amsalem, and Andrés Martin. 2024. "Embracing Different Languages and Local Differences: Co-constructive Patient Simulation Strengthens Host Countries' Clinical Training in Psychiatry." *World Journal of Psychiatry* 14, no. 1 (January): 111–118. 10.5498%2Fwjp.v14.i1.111

Fatemi, Sayyed Mohsen, and Ellen J. Langer. 2018. "Langerian Mindfulness and Its Psychotherapeutic Implications: Recomposing/Decomposing Mindlessly Constructed Life Stories." In *Psychotherapy, Literature and the Visual and Performing Arts*, edited by Bruce Kirkcaldy, 43–52. Cham, Switzerland: Palgrave Macmillan. https://doi.org/10.1007/978-3-319-75423-9_3

Fauconnier, Gilles, and Mark Turner. 2003. "Conceptual Blending, Form and Meaning." *Recherches en Communication* 19:57–86.

Felski, Rita. 2015. *The Limits of Critique*. Chicago: University of Chicago Press.

Freire, Paulo. 2000. *Pedagogy of the Oppressed.* 30th Anniversary Ed. Translated by Myra Bergman Ramos. New York: Continuum Press.

Garden, Rebecca. 2007. "The Problem of Empathy: Medicine and the Humanities." *New Literary History* 38 (3): 551–67.

Geertz, Clifford. 1973. "Thick Description: Toward an Interpretive Theory of Culture." In *The Interpretation of Cultures: Selected Essays*, 3–30. New York: Basic Books.

Ghaemi, S. Nassir. 2009. "The Rise and Fall of the Biopsychosocial Model." *The British Journal of Psychiatry* 195, no. 1 (July): 3–4. https://doi.org/10.1192/bjp.bp.109.063859

Heifetz, Ronald, Alexander Grashow, and Marty Linsky. 2009. *The Practice of Adaptive Leadership: Tools and Tactics for Changing Your Organization and the World.* 1st ed. Boston: Harvard Business Press.

Hillman, James. 2021. *Senex & Puer*. Vol. 3. Edited by Glen Slater. Thompson, CT: Spring Publications.

Isaac, Manuel Gustavo. 2021. "What Should Conceptual Engineering Be All About?" *Philosophia* 49, no. 5 (November): 2053–65. https://doi.org/10.1007/s11406-021-00367-x

Kauffman, Stuart A. 2008. *Reinventing the Sacred: A New View of Science, Reason, and Religion.* New York: Basic Books.

Kegan, Robert, and Lisa Lahey. 2001. "The Real Reason People Won't Change." *Harvard Business Review*, November 2001. https://hbr.org/2001/11/the-real-reason-people-wont-change

Kegan, Robert, and Lisa Laskow Lahey. 2009. *Immunity to Change: How to Overcome it and Unlock Potential in Yourself and Your Organization*. 1st ed. Boston: Harvard Business Press.

Klugman, Craig M., Rachel Conrad Bracken, Rosemary I. Weatherston, Catherine Burns Konefal, Sarah L. Berry. 2021. "Developing New Academic Programs in the Medical/Health Humanities: A Toolkit to Support Continued Growth." *Journal of Medical Humanities* 42 (4): 523–34. https://doi.org/10.1007/s10912-021-09710-5

Kuluski, Kerry, Robert J. Reid, and G. Ross Baker. 2020. "Applying the Principles of Adaptive Leadership to Person-Centred Care for People with Complex Care Needs: Considerations for Care Providers, Patients, Caregivers and Organizations." *Health Expectations* 4 (2): 175–81. https://doi.org/10.1111/hex.13174

Lopreiato J O. Healthcare Simulation Dictionary. Rockville, MD: Agency for Healthcare Research and Quality; October 2016. AHRQ Publication No. 16(17)-0043.

Maran, N. J., and R. J. Glavin. 2003. "Low- to High-Fidelity Simulation—A Continuum of Medical Education?" *Medical Education* 37 (1): 22–28. https://doi.org/10.1046/j.1365-2923.37.s1.9.x

Martin, Andrés, Julie Chilton, Cecilia Paasche, Nicole Nabatkhorian, Hilary Gortler, Erica Cohenmehr, Indigo Weller, Doron Amsalem, and Stephanie Neary. 2020. "Shared Living Experiences by Physicians Have a Positive Impact on Mental Health Attitudes and Stigma among Medical Students: A Mixed-Methods Study." *Journal of Medical Education and Curricular Development* 7. https://doi.org/10.1177/2382120520968072

Martin, Andrés, Marco A. de Carvalho Filho, Debbie Jaarsma, and Robbert Duvivier. 2021. "Making It Real: From *Telling to Showing, Sharing*, and *Doing* in Psychiatric Education." *Advances in Medical Education and Practice* 12:1379–88. https://doi.org/10.2147/AMEP.S336779

Martin, Andrés, Indigo Weller, Doron Amsalem, Ayodola Adigun, Debbie Jaarsma, Robbert Duvivier, and Marco Antonio de Carvalho-Filho. 2021. "From Learning Psychiatry to Becoming Psychiatrists: A Qualitative Study of Co-constructive Patient Simulation." *Frontiers in Psychiatry* 11. https://doi.org/10.3389/fpsyt.2020.616239

Martin, Andrés, Indigo Weller, Doron Amsalem, Robbert Duvivier, Debbie Jaarsma, and Marco Antonio de Carvalho-Filho. 2021. "Co-constructive Patient Simulation: A Learner-Centered Method to Enhance Communication and Reflection Skills." *Simulation in Healthcare* 16 (6): e129–35. https://doi.org/10.1097/SIH.0000000000000528

Moniz, Tracy, Carolyn M. Melro, Andrew Warren, and Chris Watling. 2022. "Dual and Duelling Purposes: An Exploration of Educators' Perspectives on the Use of Reflective Writing to Remediate Professionalism in Residency." *Medical Education* 56 (2): 176–85. https://doi.org/10.1111/medu.14625

Montello, Martha. 1997. "Narrative Competence." In *Stories and Their Limits: Narrative Approaches to Bioethics*, edited by Hilde Lindemann Nelson, 185–97. New York: Routledge.

Moreno, J. L. 1987. *The Essential Moreno Writings on Psychodrama, Group Method, and Spontaneity*. Edited by Jonathan Fox. New York: Springer Publishing Company.

Nixon, Rob. 2011. *Slow Violence and the Environmentalism of the Poor*. 1st ed. Cambridge, MA: Harvard University Press.

Rynearson, Edward K. 2001. *Retelling Violent Death*. Philadelphia: Brunner-Routledge.

Rynearson, Edward K. 2018. "Disabling Reenactment Imagery after Violent Dying." *Death Studies* 42 (1): 4–8. https://doi.org/10.1080/07481187.2017.1370411

Schön, Donald A. 2017. *The Reflective Practitioner: How Professionals Think in Action*. 1st ed. New York: Routledge. https://doi.org/10.4324/9781315237473

Schweller, Marcelo, Adilson Ledubino, Dario Cecílio-Fernandes, and Marco Antonio Carvalho-Filho. 2018. "Turning the Simulation Session Upside Down: The Supervisor Plays the Resident." *Medical Education* 52 (11): 1203–04. https://doi.org/10.1111/medu.13722

Spruijt, Annemarie, Cecil C. Prins-Aardema, Marco Antonio de Carvalho-Filho, Debbie Jaarsma, and Andrés Martin. 2022. "Co-constructive Veterinary Simulation: A Novel Approach to Enhancing Clinical Communication and Reflection Skills." *Journal of Veterinary Medical Education* 50 (2): 134–39. https://doi.org/10.3138/jvme-2021-0160

Thygeson, Marcus, Lawrence Morrissey, and Val Ulstad. 2010. "Adaptive Leadership and the Practice of Medicine: A Complexity-Based Approach to Reframing the Doctor-Patient Relationship." *Journal of Evaluation in Clinical Practice* 16 (5): 1009–15. https://doi.org/10.1111/j.1365-2753.2010.01533.x

van Hoof, Marie-José, Marie-Aude Piot, Giulia Iozzia, Khatun Mirsujan, Mark D. Hanson, and Andrés Martin. 2024. "Co-constructive Patient Simulation at International Conferences: Strengthening Interactions and Deepening Reflection." *European Child & Adolescent Psychiatry*, February 22, 2024, 1–3. https://doi.org/10.1007/s00787-024-02384-z

Watts, Penni I., Kelly Rossler, Fara Bowler, Carrie Miller, Matthew Charnetski, Sharon Decker, Margory A. Molloy, et al. 2021. "Onward and Upward: Introducing the Healthcare Simulation Standards of Best Practice™." *Clinical Simulation in Nursing* 58:1–4. https://doi.org/10.1016/j.ecns.2021.08.006

Wenger, Etienne. 1998. *Communities of Practice: Learning, Meaning, and Identity*. Cambridge: Cambridge University Press.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.