

THINKING WITH STORIES: AI SUPPORTING NBM IN THE PROCESSES OF PROFESSIONALIZATION/PROFESSIONAL DEVELOPMENT

PENSARE CON LE STORIE: L'IA A SUPPORTO DELLA NBM NEI PROCESSI DI PROFESSIONALIZZAZIONE

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Double Blind Peer Review

Sarracino, F., Ariemma, L. (2025). Thinking with Stories: AI Supporting Nbm in the Processes of Professionalization/Professional Development. In *Italian Journal of Health Education, Sports and Inclusive Didactics*, 9(4).

Doi:

<https://doi.org/10.32043/gsd.v9i4.1638>

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gsdjournal.it

ISSN: 2532-3296

ISBN: 978-88-6022-528-3

ABSTRACT

The article promotes Narrative Based Medicine (NBM) as a complement to EBM to overcome biomedical reductionism. The study uses generative AI on 52 narratives to analyze the evolution of healthcare professionals' professional habitus. Results highlight a habitus focused on "soft" skills—like empathy, active listening, holistic care (addressing illness and sickness), uncertainty management, and self-reflection. The AI acts as a reflective device, transforming implicit habitus into conscious and shared professional action

L'articolo promuove la Medicina Narrativa (NBM) come complemento all'EBM per superare il riduzionismo biomedico. Lo studio, tramite l'uso dell'IA generativa su 52 narrazioni, analizza l'evoluzione dell'habitus professionale degli operatori sanitari. I risultati evidenziano un habitus centrato su competenze "soft" come empatia, ascolto, cura olistica (illness/sickness), gestione dell'incertezza e auto-riflessione. L'IA funge da dispositivo riflessivo, trasformando l'habitus implicito in azione professionale consapevole e condivisa.

KEYWORDS

Narrative Based Medicine (NBM), Professional Habitus, Artificial Intelligence (AI), Reflexive Device, Soft Skills

Medicina Narrativa (NBM), Habitus Professionale, IntelligenzaArtificiale (IA), Dispositivo Riflessivo, Competenze Soft

Received 2025-10-10

Accepted 2026-01-07

Published 2026-01-12

Introduction. Narrative Medicine as a paradigm of care and a reflective device

The landscape of contemporary healthcare is increasingly enriched by the integration of approaches that transcend the reductionism of the pure biomedical model. In this context, Narrative-Based Medicine (NBM) emerges as an essential paradigm, defined by Rita Charon as medicine "practiced with the skills that allow us to recognize, understand, interpret illness stories, and respond appropriately" (Charon, 2017, p. 1). This perspective places the patient's story at the center (not just their clinical symptoms, but their experiences, fears, and hopes), elevating listening and interpretation of the narrative to fundamental diagnostic and therapeutic tools. "The patient is a wounded narrator, and illness stories are bridges between lived experience and the world of medicine." (Frank, 1995).

"We dream in narrative, daydream in narrative, remember, anticipate, hope, despair, believe, doubt, plan, revise, criticize, construct, gossip, learn, hate and love by narrative. Episodes of sickness are important milestones in the enacted narratives of patients' lives. Thus, not only do we live by narrative but, often with our doctor or nurse as witness, we fall ill, get better, get worse, stay the same, and finally die by narrative too.

The narrative provides meaning, context, and perspective for the patient's predicament. It defines how, why, and in what way he or she is ill. The study of narrative offers a possibility of developing an understanding that cannot be arrived at by any other means. Doctors and therapists frequently see their roles in terms of facilitating alternative stories that make sense from the patient's point of view. It has been argued that in psychotherapy the role of the therapist goes further: the therapist should assist the patient in his or her attempt to construct and work through the unconscious elements of a half written personal story. (Greenhalgh & Hurwitz, 1999, p. 48).

1. From narrative thinking to the co-construction of care

The centrality of narrative is rooted in the very nature of human beings. Since the dawn of humanity, as Jerome Bruner emphasized, narrative has been a primary cognitive and social device for giving meaning and significance to experiences (Bruner, 1992). It is through narrative thought that the individual, as a socio-culturally situated subject, reconstructs, organizes, and makes intelligible his or her knowledge of reality. As Striano (2005, p. 1) states, experiences not narratively reworked remain "opaque events, [...] devoid of meaning and any cultural,

personal, and social significance, and, consequently, are inevitably destined to oblivion."

This intrinsic human need to narrate finds crucial resonance in the context of illness. Illness is first and foremost a "biographical rupture" (Herzlich & Adam, 1999), an event that disrupts the patient's daily life, identity, and future projection. The ill individual, knocking on the healthcare provider's door, brings with him not only the disease (the biological pathology), but above all the illness (the subjective experience of the illness) and sickness (the social impact of the illness) (Hoffmann, 2002).

The patient's self-narration is not a mere account of events, but an act of identity reconstruction and an implicit request for existential recognition (Benini, 2016, p. 157). Furthermore, the narrative is expressed in the "subjunctive" (Bruner, 1993, pp. 33-34), as it does not aim for an objective truth, but rather a subjective interpretation of reality and the self.

From this perspective, the healthcare provider is called upon to undertake a complex process of "co-construction" of the illness story (Zannini, 2008, pp. 61 ff.). This requires specific expertise: the ability to actively listen and critically interpret, to avoid narrative smoothing (Spence, 1986; Shapiro, 1993), the reassuring tendency to channel the patient's story into predefined diagnostic frameworks, "labeling" the individual rather than understanding their uniqueness.

The patient who narrates his or her medical history, as a "wounded narrator" (Frank, 1995), offers healthcare professionals a unique and profound opportunity for professional growth, transforming the act of storytelling into an ethical imperative of testimony and responsibility that redefines the healthcare professional in terms of moral commitment and through the learning of a "pedagogy of suffering." The "wounded narrator" allows the "wounded healer" to redefine their professional identity: patients' narratives allow professionals to establish an empathic bond strengthened by shared vulnerability.

This approach shifts the doctor-patient relationship from a technical interaction to a profound moral commitment. If a healthcare provider receives a patient's testimony, that testimony implicates them in what they witness. Narrative ethics guides both sick and healthy people (including professionals) in the moral commitments to which their illness calls them. For example, when a patient asks a non-medical question, such as "Can you give me the courage I need?", the healthcare provider is called into a moral relationship in which their medical expertise is minimally relevant. The ethics of responding to such a request involves the assumption of a profound moral commitment.

Doctors must "allow their own wounds to enhance the power of their care for patients, to allow their own personal experiences to strengthen the empathic bond with others who suffer" (Charon, 1994, p. 158): the patient, in his role as narrator, is not only a recipient of care, but "cares for others." Their wounds become the

source of the power of their stories, creating empathic bonds with listeners: because stories can heal, the figure of the wounded healer and that of the wounded narrator "are not separate, but are different aspects of the same figure" (Frank, 1995).

Patient narrative engages healthcare professionals in a "clinical ethics project" that aims to increase narrative sensitization among professionals. The goal is to encourage professionals to "recognize patients' stories and everything they represent." The professional's task, therefore, is to learn to "think with stories." This means going beyond simple content analysis: thinking with a story means experiencing its impact on one's life and finding in that impact a certain truth about one's own life.

"You have to learn to think with stories. Not think about stories, which would be the usual phrase, but think with them. To think about a story is to reduce it to content and then analyze that content. Thinking with stories takes the story as already complete; there is no going beyond it. To think with a story is to experience it affecting one's own life and to find in that effect a certain truth of one's life" (Frank, 1995, p. 23).

2. The reflective value for the caregiver: the "parallel file"

Illness narratives are a device that works both ways: they help patients make sense of their condition, but they are also a powerful tool for personal and professional growth for caregivers. Actively participating in patients' narratives allows caregivers to give meaning to their professional history and, ultimately, to define and redefine their own identity (Zannini, 2008, p. 65). In this sense, knowledge is not only "made" but also "made us" (Zannini).

This introspective process is linked to the concepts of reflexivity theorized by Donald Schön (1983) for complex professions. Healthcare workers, operating in a non-exact scientific context, are called upon to be "reflective professionals," capable of engaging in a constant dialogue between their technical skills (knowledge-for-practice) and the experiential experiences encountered daily (reflection-in-action and reflection-on-action). As highlighted by Benini (2016, p. 163), this reflexivity generates a habitus that reorganizes the knowledge and personal aspects that define professional epistemology.

A concrete tool to support this reflexivity is the "parallel record" (Charon, 2019, pp. 167 ff.). Charon suggests that the emotions, resonances, and reflections that the encounter with the patient generates in the professional should not be lost. Transcribed in a document separate from the official medical record, they become a true growth diary that captures the human side of care (Avellino et al., 2023, p.

237). Through the "parallel record," the healthcare professional narrates and educates, transforming experience into knowledge and empathic listening into transformative skill.

From these considerations, it is clear that, contrary to a dichotomous view, Narrative-Based Medicine (NBM) is not opposed to Evidence-Based Medicine (EBM). EBM, with its focus on clinical and diagnostic evidence, provides the scientific basis necessary for treatment (disease); NBM contributes the human, relational, and subjective dimension (illness and sickness).

As established in the Consensus Conference: Guidelines for Narrative Medicine (2015), the two paradigms are interrelated and complement each other: "Narrative Medicine (NBM) integrates with Evidence-Based Medicine (EBM) and, taking into account the plurality of perspectives, makes clinical-care decisions more comprehensive, personalized, effective, and appropriate" (p. 13).

The integration of the two perspectives is essential to transform the diagnostic-therapeutic process into a true healing alliance, a crucial element especially in the management of chronic diseases (Zannini, 2021a). Through NBM, healthcare professionals enrich their professionalism with a profound "reading" of the patient's narrative, an essential skill for conveying knowledge and respect and for "accompanying the patient, together with their family, through their suffering" (Charon, 2017, p. 1).

Patient stories offer a "pedagogy of suffering" that challenges modernist medical assumptions, which tend to frame illness within a "narrative of restitution" (healing as the only acceptable outcome). The patient exposes the uncomfortable and necessary truth of contingency and vulnerability.

Ultimately, the patient's narrative of illness encourages healthcare professionals to view their careers not simply as a trajectory of professional success, but as a continuous journey of "moral development." "Care, in its essence, is a narrative act that requires both the ability to tell and the ability to listen. It is narrative that defines and heals the human condition of suffering." (Kleinman, 1988)

Studying patient narratives is essential for clinical practice that is not only more holistic but also more effective, providing a perspective that cannot be achieved through other means. The processes of becoming ill, being ill, recovering (or worsening), and coping with illness (or failing to cope) can all be considered narratives embodied within the broader narratives of people's lives. Patients also become ill, recover, worsen, remain stable, and die through narrative.

Narrative provides meaning, context, and perspective for the patient's critical situation, defining how, why, and in what way the patient is ill. This offers a framework for addressing a patient's problems holistically and, in the therapeutic setting, encourages a holistic approach to illness management. Studying illness narratives can uncover diagnostic and therapeutic options, providing useful clues and analytical categories in the diagnostic encounter, and suggesting or highlighting additional therapeutic options in the care process (Greenhalgh & Hurwitz, 1998).

When clinicians collect medical histories, they inevitably act as ethnographers, historians, and biographers, needing to understand aspects of the person, personality, social and psychological functioning, in addition to biological and physical phenomena. The notion of interpretation is central to narrative analysis (as in literary criticism), enabling the construction of meaning. It is essential that clinicians be wary of the dangerous tendency to see only what they expect and to unconsciously dismiss what is abnormal, a phenomenon that can lead to "selective deafness" or "selective blindness" to relevant symptoms. Narrative fragments of symptoms (such as "my shortness of breath always gets worse when I lie down...") are often revealing to clinicians, who act as readers of signs. Beyond their diagnostic value, narratives are intrinsically therapeutic or palliative, offering a method for addressing existential qualities such as inner pain, despair, hope, mourning, and emotional distress—qualities that often accompany, and sometimes even constitute, the illnesses from which people suffer.

Modern medicine, at its most arid, lacks a yardstick for measuring these existential qualities. The oral tradition of listening to and interpreting patients' stories has been partially lost in Western culture, and the skills for appreciating and interpreting these stories are rarely considered core clinical competencies in curricula. The replacement of fundamentally linguistic, empathetic, and interpretive skills with skills deemed "scientific" (measurable but reductionist) is considered a failed aspect of the modern curriculum. Core clinical skills—such as listening, questioning, delineating, organizing, explaining, and interpreting—can mediate between the very different worlds of patients and healthcare providers. The execution of these tasks, whether done well or poorly, is likely to have as much influence on the outcome of the disease from the patient's perspective as the more scientific and technical aspects of diagnosis or treatment. Doctors and therapists often see their role as facilitating "alternative stories that make sense from the patient's perspective" (Greenhalgh & Hurwitz, 1999).

3. Professional action in healthcare: a constantly evolving habitus

The core of professional action in healthcare is defined by the concept of professional identity, a multidimensional and intrinsically dynamic construct that goes beyond mere qualifications, integrating the individual's personal, social, and collective identities (Todisco et al., 2024). Identity itself is configured as the organized set of knowledge, feelings, and projects that constitute the self, offering a "sense of continuity of self across time and space" (Pintus, 2008, pp. 27-28). For healthcare professionals, the definition of this identity is complex and constantly negotiated: it is shaped by organizational culture and role configuration, while maintaining an essential link with the individual's awareness of "being, thinking, and acting as a professional" (Todisco et al., 2024, p. 2). Social recognition and public perception significantly impact this identity, influencing the perceived sense of value and the attractiveness of the sector.

Habitus, as theorized by Bourdieu (1985), structures healthcare professionals' actions. This dynamic system of enduring and transferable dispositions is not just a set of attitudes, but the mechanism through which individuals form and engage in practices (Webb et al., 2002, pp. xii-xiii). For healthcare professionals, habitus is a key element that regulates actions and decisions in real time, enabling them to mobilize prior knowledge and experience and convert them into effective skills. Defined as the "unchosen principle of all choices" (Bourdieu, 1985, p. 86), habitus is implicit knowledge, essential not only for individual identity but also for professional and collective identity in the healthcare system. Every interaction with the patient or with colleagues, every care context, acts as a continuous shaper, refining this system of predispositions.

From this perspective, Haida Luke (2003) defines the construct of medical habitus, which he outlines as a new conceptualization of the professional development process, essential for investigating the complexity of social and cultural factors, particularly in the early stages of medical professionalization. The aim is to highlight and describe the complex and intertwined process of internalizing a particular medical habitus. The medical habitus develops through the observation and documentation of what is defined as the 'greenhouse effect' during years of hospital practice. It represents a dynamic set of integrated dispositions (bodily actions, cognitive thoughts, and social practices) that endure, change, and are adaptable across fields. The weight of medical culture and the unconscious, structuring habitus, developed through institutional practices and professional codes of conduct, mutually reinforce each other in shaping the medical professional. The acquisition of a habitus is crucial because it allows us to analyze

the process of professional development, which shapes the activity of the individual physician and reproduces specific structures of opportunities or impediments. When habitus is internalized, physicians acquire a sense of their own place and the place of others in the field. The dispositions that comprise the habitus are attuned to the structure of the field, allowing physicians to actively participate in the "game" of medical culture. Strategies generated by habitus include learning how to accommodate superiors' needs, maintaining a conservative image, or a certain professional mold (for example, in dress, posture, and demeanor). Consequently, medical habitus, understood as corporeal schemata, governs physicians' appropriate conduct and performance, leading to a transformation of dispositions that, once embedded, are difficult to change and ensure survival and success in the medical field.

For habitus to evolve, continuing education is an essential process (Cahill, 2016). Not limited to the transfer of knowledge, training is a transformative process (Crossley, 2003) that is enriched when individuals engage in critical reflection on their professional background. Understanding the implicit logic that guides clinical choices is crucial to improving practice and addressing increasingly complex contexts, viewing change not as a threat, but as an opportunity for growth. Training therefore becomes a synthesis of choices that require self-knowledge, openness to reality, and alignment with professional ethical values (Crossley, 2001).

In this context, the narrative device takes on a crucial epistemic function. Narration is the process through which we attribute meaning and significance to experiences (Bruner, 1990) and, in this way, facilitates access to the implicit dimensions of habitus that would otherwise remain unconscious. Recounting an experience—a success, a failure, an ethical dilemma—urges professionals to objectify their practices through a recursive process of immersion and distancing (Costa et al., 2018). This self-reflexive process allows them to trace the genesis of their dispositions and identify learned cognitive and behavioral patterns. Narration, in the professional context, brings to light tacit knowledge and latent skills, facilitating the deconstruction of choices and allowing us to interrogate the implicit "evidence" that guided them. Sharing narratives within a community of practice can also foster collective intelligence, stimulating critical reflection on established practices (Wenger, 1998). Ultimately, storytelling is not just a communicative act, but a powerful catalyst for raising awareness of personal and professional habits, transforming an "unchosen principle" into an object of reflection and, consequently, of possible evolution (Magnoler, 2011).

4. The research design. AI-enabled storytelling as a tool for training in healthcare professions.

As part of the "General Pedagogy" module for students in the Master's Degree in Nursing and Midwifery Sciences at the University of Campania "Luigi Vanvitelli," a narrative workshop activity was offered with the support of AI. The students, in their second year of training, had already participated in training activities with the same professor, starting the previous year, focusing on the importance of autobiographical narrative in shaping professional identity and the elements characterizing communication about illness.

The instructions were as follows: "Starting from the narrative of an experience you had on the ward, reflect on the healthcare worker's difficulty communicating the uncertainty of the disease. Describe your moods, your difficulties, the communication strategies you implemented, and the responses and feedback you received from your interlocutors (patients and family members)."

The aim of the workshop was to collect the narratives and, with the support of AI, define their common characteristics until reaching a "social" narrative that could traverse them all in a process that, from the small personal stories of each individual, could lead to the narration of a shared professional action.

Current exploration of the use of artificial intelligence (AI) in the field of educational and teaching research has focused, on the one hand, on applications and practices to support training and learning processes, as evidenced by existing literature that highlights its potential, describes experiments, experiences and practical suggestions (Panciroli & Rivoltella, 2023; Ranieri, 2024, Zanon et al., 2024; Santilli, 2024, Sarracino & Ariemma, 2025); On the other hand, there is a very large body of references studying its potential (and limitations) to support research processes, aiming to improve the sustainability of the analysis of complex and long documents, for example, by experimenting with automatic semantic analysis to identify recurrences in linguistic constructs, to categorize research data, etc. In this regard, the issue of reliability and the 'hallucinations' that AI can encounter is relevant: all of this, as we will see later, was taken into account in the analysis of the handwriting. In the case of our study, a pre-trained generative system, ChatPDF, present in the OpenAI Plus suite of applications, was used to analyze the research data. This tool can read PDF documents, both textual and tabular, and can ask the user questions (which the ChatBot aims to answer) or respond to original queries posed by the user, building a semantic index of the text. To test whether reliability

issues compromised the quality of the AI's responses, a small selection of documents was selected to compare the AI's responses with those of researchers (Hassani & Silva, 2023). This "control" process was initiated because the literature reports limitations regarding the use of AI: as previously mentioned, chatbot responses are not always reliable and can produce errors or "hallucinations" (Alkaissi & McFarlane, 2023). These "errors," however, are strictly dependent on the quality of the prompts provided (White et al., 2023). This process allowed us to improve the prompt provided to the AI through successive approximations, achieving overall consistency in the results.

Once the prompt 'adjustment' process was completed, the narratives were then fed, one at a time, to the AI (the ChatPDF Pro version of OpenAI's AI was used), which was asked to select from the narratives the actions related to the professional skills performed in different situations by healthcare professionals.

At the same time, the narratives were also submitted to Google's Gemini AI (Flash 2.5), which was asked to "find in the attached text the actions that reveal the professional skills of the healthcare professional depicted in the narrative." The responses obtained from the Chats were returned to the "narrators," who were able to "look at themselves in the mirror" and reread what they had narrated through the watchful eye of the AI.

Starting from the skills (and, therefore, the actions of healthcare professionals) selected in the various student narratives, the AI was then asked to group them into semantic areas.

5. Categorizing the professional skills of healthcare workers

As described above, the 52 narratives were fed to the AI, which processed them by selecting the actions that typify competent behavior. These actions were grouped by the AI into semantic areas. Analysis of all the narratives provided revealed various professional skills of healthcare professionals, which can be grouped into the semantic areas described below. The analysis of the narratives revealed that, according to the trainees, the healthcare professional's professional habitus is strongly characterized by a relational dimension of personal care, which is also tied to their personal characteristics and the fruit of their life experiences. This dimension was then grafted onto the more strictly operational dimension of action, linked to the training programs.

The narratives highlight a strong emphasis on "soft" or relational skills, such as empathy, active listening, the ability to build trusting relationships, and effective communication in complex situations. These skills are complemented by more

traditional observation and case management skills, but with a constant reflection on the importance of care that goes beyond the purely technical and scientific aspect to embrace the human, emotional, and social dimensions of the patient. Below are the semantic areas into which it was possible to group the professional skills of healthcare workers.

1. Interpersonal and communication skills.

Healthcare professionals demonstrate exceptional empathy and active listening, going beyond words to grasp patients' deepest needs, fears, and emotions. They are skilled at building meaningful and trusting relationships, creating bonds that become a fundamental pillar of the treatment journey, transforming the relationship from a merely professional one to one of almost friendly or family-like support. Effective and tailored communication is another key skill, manifested in knowing how to balance words and silences, in communicating each procedure, and in engaging the patient, adapting language and topics to their emotional needs. The understanding that communication is not just the transmission of information but also nonverbal expression is evident. Indeed, the professional accompanies the patient in their physical transformation and takes care to chart a path forward, even without extensive dialogue; they listen to their needs and seek to interpret their hidden fears: competence emerges through "being there" and sharing a part of their existence with the patient; "listen" also to nonverbal communication, body language, silences, distances.

a) Empathy and active listening.

"I understood A. and felt emotionally very close to him; I could sense his every fear." "We are there when people tell us that 'things are fine,' and we can rejoice with them wholeheartedly, but above all, we are there when situations are difficult, complex, painful, and sometimes irreversible." "She remained there, unlike everyone else, sitting in silence, facing rejection." "Security, that's what they ask for, often more with their eyes than with words. Affection and courage provide the perfect framework."

b) Building relationships and trust.

"We had become good friends, confidants, without ever straying too far from my role; he trusted me." "I met and assisted many people, sharing with them a part of their, or rather, our, existence." "Day after day, respecting his moments, we managed to reduce the distance."

c) Effective communication and adaptation.

"I communicated every procedure I performed on him and made him participate." "How strong the power of communication was... and how powerful words were, and even more so silences."

2. Person-centered care skills.

Professionals operate with a holistic view of care, recognizing that their role goes "beyond the illness" to embrace the person as a whole. This involves focusing not

only on the "disease" (the pathology), but also on the "illness" (the patient's experience of the illness) and "sickness" (the social impact), aiming for overall well-being and quality of life even in the absence of recovery. Emotional and psychological support is therefore intrinsic to their work, through actions that validate emotions, offer comfort, and promote serenity. Many recognize the importance of intervening on the environment and the family, involving family members in the care process and facilitating a climate of support and harmony.

a) Holistic vision of care (beyond the disease).

"If you treat a disease, you win or lose; but if you treat a person, I assure you, you win, you always win, regardless of the outcome of the treatment." "I treated R., both for her and for her loved ones."

b) Emotional and psychological support.

"I tried to appear cheerful, confident in the treatment, and to fight back the anger, pain, and fears." "The coordinator listened to him for a long time without interrupting, encouraging him to continue, allowing him to cry out in relief." "Aware that patients demand security... affection, and courage."

c) Intervention on the environment and the family:

"[...] opening the door to her room and thus creating a single home with her beloved son and her husband," transforming the environment into a peaceful haven. "The family's contribution and participation was crucial, thanks to which we were able to eliminate communication barriers, making the treatment process much simpler."

3. Professional and managerial skills.

Proactivity and initiative emerge in addressing complex situations. Despite difficulties and emotional challenges, professionals demonstrate perseverance and resilience, refusing to give up in the face of rejection or hostility. Managing uncertainty is a crucial skill, recognizing that medicine is often a probabilistic science and that definitive answers are not always available, while still seeking to offer guidance and planning. Finally, a profound awareness of their limitations and self-reflective processes characterizes these professionals, who analyze their emotions, recognize moral distress, and constantly question themselves on how to improve their practice, not only technically but also personally. This ongoing reflection guides a path of professional development and growth, which aims to "humanize" medicine and give deeper meaning to their work.

a) Proactivity and initiative:

"[...] go deeper" and promptly, going to the waiting room and introducing myself to the patient. "[...] I didn't give up!"

b) Managing Uncertainty:

"[...] there is often no certainty." I told him that "medicine... is a probabilistic science." "I didn't know if I had done everything correctly."

c) Awareness of limitations and self-reflection.

It's necessary to recognize the "continuous work we must do with ourselves, with our feelings." "[...] I felt scared, worried, and unprepared, and on that occasion I felt like I hadn't understood the importance of humanizing care!" At that moment, I wasn't able to maintain emotional detachment and reflect on how much she and the team contributed to making the patients' lives easier."

d) Professional development and growth.

"The decision to address the topic of cancer stemmed from the recognition I felt in the topics covered during the classes, sparking a desire to improve my practice. I learned to 'respond, interpret, and absorb' the patient's emotions, creating an empathetic relationship while maintaining the objective, nonjudgmental, and intransitive attitude required by narrative thinking, which allowed me to move from theory to practice."

Conclusions

The analysis of the AI-supported narrative laboratory revealed that the professional habits of future healthcare workers are profoundly influenced by the relational and personal care dimension, closely linked to personal life experiences and academic training. The narratives examined emphasize the importance of "soft" or relational skills, such as empathy, active listening, the ability to build trust, and the ability to communicate effectively in complex contexts.

These skills complement the more traditional skills of observation and case management, highlighting a care approach that transcends the technical and scientific to embrace the human, emotional, and social dimensions of the patient. Professionals demonstrate proactivity and initiative in managing difficult situations, resilience in the face of emotional challenges, and a crucial awareness of the uncertainty inherent in medical practice. A distinctive element is profound self-reflection, which leads professionals to examine their emotions, acknowledge moral distress, and seek to continuously improve their practice, both technically and humanly, with the goal of "humanizing" medicine. The integration of Narrative Medicine (NBM) with Evidence-Based Medicine (EBM) emerges as a fundamental approach - not alternatives but rather complementary - to provide more comprehensive, personalized, and effective care, recognizing illness as a "biographical rupture" requiring holistic patient support.

Narratives not only allow patients to make sense of their illness, but also offer healthcare professionals the opportunity to give meaning to their professional history, contributing to the redefinition of their identity. In this context, AI has proven to be an effective "reflexive device," allowing participants to objectify and

reflect on their implicit professional habits, translating lived experiences into explicit skills and promoting critical awareness. This narrative process, facilitated by AI, supported the construction of a "shared professional agency" and contributed to the personal and professional growth of healthcare professionals, transforming habitus from an "unchosen principle" to an object of reflection and potential transformation.

Author contributions

This work is the result of shared planning, research, and discussion. The paragraphs were written as follows: §§ 1 and 2, XXXXXXXX; §§ 3, 4, and 5, YYYYYYYY; Introduction and Conclusions, written jointly by the authors.

References

- Alkaiissi, H., & McFarlane, S. I. (2023). *Artificial Hallucinations in ChatGPT: Implications in Scientific Writing*. *Cureus*, 15(2), e35179. <https://doi.org/10.7759/cureus.35179>
- Avellino, A., Gagliardi, C., & Thekkan, K. R. (2023). *La formazione pedagogica dei professionisti sanitari. La medicina narrativa dalla teoria in aula alla pratica clinica*. *Medical Humanities & Medicina Narrativa*, 2, 235–243.
- Beninni S. (2016). *Reti di possibilità. Quando la pedagogia incontra le prassi sanitarie*. Milano: Franco Angeli.
- Bruner, J.S. (1990). *Acts of meaning*. Cambridge, MA: Harvard University Press.
- Bruner, J.S. (1992). *La ricerca del significato*. Torino: Bollati Boringhieri.
- Bruner, J.S. (1993). *La mente a più dimensioni*. Roma-Bari: Laterza.
- Bruner, J.S. (2002). *La fabbrica delle storie*. Roma-Bari: Laterza.
- Castiglioni, M. (2011). *La narrazione nella relazione educativa: un percorso di senso e di metodo*. In Bargellini C. & Cantù S. (edited by), *Viaggi nelle storie. Frammenti di cinema per narrare* (pp. 93-119). Milano: ISMU.
- Charon R. (1994). *The Narrative Road to Empathy*. In Spiro H., McCrea Cumen M.G., Peschel E., and St. James D., (edited by). *Empathy and the Practice of Medicine: Beyond Pills and the Scalpel*. New Haven: Yale University Press.

Charon R. (2019). *Medicina narrativa. Onorare le storie dei pazienti*. Milano: Raffaello Cortina.

Costa, C., Burke, C., & Murphy, M. (2019). *Capturing habitus: theory, method and reflexivity*. International Journal of Research & Method in Education, 42(1), 19-32. <https://doi.org/10.1080/1743727x.2017.1420771>

Crossley, N. (2003). From reproduction to transformation. Theory, Culture & Society, 20 (6), 43-68.

Crossley, N. (2001). The phenomenological habitus and its construction. Theory and Society, 30 , 81-120.

Crossley, N. (2002). Habitus, agency and change: Engaging with Bourdieu. Gendai Shakai-Riron Kenku (Journal of Studies in Contemporary Social Theory), 12 , 329-57.

Cahill, K. M. (2016). The habitus, coping practices, and the search for the ground of action. Philosophy of the Social Sciences, 46 (5), 498-524.

De Marco, E. L., & Fiore, I. (2024). Digital storytelling e intelligenza artificiale nella medicina narrativa. Medical Humanities & Medicina Narrativa, 2 , 75-88.

Frank, A. W. (1995). *The Wounded Storyteller: Body, Illness, and Ethics*. Chicago: The University of Chicago Press.

Greenhalgh, T. & Hurwitz, B. (1998), (edited by). *Narrative Based Medicine: Dialogue and Interpretation in Clinical Practice*. London: BMJ Books.

Greenhalgh T. & Hurwitz B. (1999). *Narrative based medicine: Why study narrative?* BMJ, 318(7176), pp. 48-50.

Hassani, H., & Silva, E. S. (2023). The role of ChatGPT in data science: How AI-assisted conversational interfaces are revolutionizing the field. Big Data and Cognitive Computing, 7 (2), Article 62. <https://doi.org/10.3390/bdcc7020062>

Herzlich, C., & Adam, P. (1999). *Sociologia della malattia e della medicina* . Milano: Franco Angeli.

Kleinman, A. (1988). *The Illness Narratives: Suffering, Healing, and the Human Condition*. New York (NY): Basic Books.

Luke H. (2003). *Medical Education and Sociology of Medical Habitus: "It's not about the Stethoscope!"*, Springer Science & Business Media. Dordrecht: Kluwer Academic Publishers.

Magnoler, P. (2011). Tracce di habitus? *Education Sciences & Society*, 2, 67-82.

Panciroli, C., & Rivoltella, P. C. (2023). *Pedagogia algoritmica*. Brescia: Scholè.

Pintus, A. (2008). *Psicologia sociale e multiculturalità*. Roma: Carocci.

Ranieri, M. (2024). Intelligenza artificiale a scuola: Una lettura pedagogico-didattica delle sfide e delle opportunità. *Rivista di Scienze dell'Educazione*, 62 (1), 123-135.

Santilli, R. (2024). Giochi di intelligenza (artificiale): Utilizzare ChatGPT in classe per la didattica delle life skills. Roma: Tab Ed.

Schön, D. A. (1993). *Il professionista riflessivo*. Bari: Edizioni Dedalo.

Shapiro, J. (1993). The use of narrative in the doctor-patient encounter. *Family Systems Medicine*, 11 (1), 47-53.

Spence, D. (1986). Narrative smoothing and clinical wisdom. In T. R. Sarbin (Ed.), *Narrative psychology: The storied nature of human conduct* (pp. 151-172). New York: Praeger Press.

Striano, M. (2025). La narrazione come dispositivo conoscitivo ed ermeneutico. *Analisi qualitativa*, 3, 1-3.

Todisco, M. C., Santamaria, C., Zanella, E., & Arcadi, P. (2024). La costruzione dell'identità professionale infermieristica: Una revisione narrativa della letteratura. *Dissertation Nursing*, 3 (2), 57-82.
<https://doi.org/10.54103/dn/22339>.

Webb, J., Schirato, T., & Danaher, G. (2002). *Understanding Bourdieu*. Crows Nest, NSW: Allen & Unwin.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. Cambridge University Press.

White, J., Fu, Q., Hays, S., Sandborn, M., Olea, C., Gilbert, H., Elnashar, A., Spencer-Smith, J., & Schmidt, D. C. (2023). A prompt pattern catalog to enhance prompt engineering with ChatGPT. *ArXiv*, 1-19. <https://arxiv.org/pdf/2302.11382>.

Zanon, F., Pascoletti, S., & Di Barbora, E. (2024). Generative intelligence for a competent and inclusive teacher: The experience of inclusive planning in the Teaching Technologies Laboratory of the Degree course in Primary Education Sciences. *Italian Journal of Special Education for Inclusion*, XII (1), 90-97.
<https://doi.org/10.7346/sipes-01-2024-08>.

Zannini, L. (2008). *Medical humanities e medicina narrativa* . Milano: Raffaello Cortina.

Zannini, L. (2021a). Intrecciare parole nelle pratiche di cura: Il contributo della medicina narrativa. *Autobiografie*, 2 , 37-46.

Zannini, L. (2021). Valutare gli effetti di interventi di medicina narrativa nella formazione dei professionisti della cura: Esperienze e riflessioni. *Medical Humanities & Medicina Narrativa*, 2 , 21-38.