

# The Usefulness of the Useless in Narrative Medicine Education: Student Perceptions of Aesthetic Practices Across a Full-Cycle Training Program in China

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## Research Article

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# Abstract

**Background** The aesthetic practices of narrative medicine—centered on close reading and reflective writing—are thought to cultivate humanistic perception and empathy in medical students; however, their acceptability and perceived value across the full-cycle training continuum have not been systematically evaluated. This study aimed to assess the educational effectiveness of aesthetic practices in narrative medicine within a full-cycle training pathway and to provide empirical grounding for the proposition of the "usefulness of the useless."

**Methods** This was a multi-cohort cross-sectional survey study. Data were drawn from post-course and end-of-term evaluation questionnaires across 10 narrative medicine-related courses (including elective, specialized, general education, and clerkship courses) offered between 2023 and 2025. Five data modules were included: necessity endorsement (n=541), teaching format preferences (n=773 person-responses), perceived value of parallel chart writing (n=116), self-rated narrative understanding and empathic competencies (n=174), and perceived transferability to non-clinical fields (n=275). Outcome measures were endorsement rates with 95% confidence intervals for each module; comparisons across course types used the chi-square test.

**Results** Overall, 97.4% (95% CI: 95.7%–98.5%) of students endorsed the necessity of integrating narrative medicine content into the curriculum, with endorsement rates exceeding 97% across elective, specialized, and general education courses, while clerkship students showed a lower rate (85.3%,  $\chi^2=21.279$ ,  $df=3$ ,  $P<0.001$ ). Regarding teaching format preferences, "recommended films and literary works" ranked first (73.1%), considerably higher than "didactic lectures" (42.4%). Endorsement rates for the necessity of parallel chart writing and its value for physician-patient communication were 93.1% and 94.0%, respectively. In self-rated narrative understanding and empathic competencies, items related to "listening and understanding" showed higher endorsement rates (92.0%–92.5%) compared with those related to "recalling and articulating" (75.3%). Notably, 93.5% of students perceived narrative medicine competencies as transferable to non-clinical career paths.

**Conclusion** Aesthetic practices in narrative medicine demonstrated broad student acceptance across the full-cycle training pathway, with students generally recognizing their transferable value for both clinical practice and broader professional domains. The philosophical proposition of the "usefulness of the useless" received preliminary empirical support. Further exploration is warranted regarding the systematic integration of aesthetic-narrative practices into core medical curricula and the strengthening of training that bridges the gap from "inner perception" to "external articulation."

## Background

Despite its remarkable technical achievements, contemporary medical education is confronting a structural tension between the expansion of technical rationality and the progressive alienation of humanistic care [1, 2]. Within training systems that prioritize standardization and quantitative assessment, the space for responding to the uniqueness of individual lives, the complexity of illness

experiences, and the aesthetic dimensions of the physician–patient relationship has been progressively constrained [3]. This tension is particularly pronounced during clinical training, where the acquisition of technical competence is often regarded as the primary objective, while the cultivation of perceptiveness, empathy, and ethical reflection is relegated to a secondary position [4].

Narrative medicine offers a potential pathway to bridge this gap. Charon defined it as "medicine practiced with the narrative competence to recognize, absorb, interpret, and be moved by the stories of illness" [5]. Its two core tools—close reading (disciplined attention to textual details, voice, metaphor, and silence) and reflective writing (narrative documentation of clinical experiences, primarily in the form of parallel charts)—serve not only as communication skills training but also as foundational approaches for cultivating aesthetic perception and ethical sensitivity [6, 7]. However, the systematic integration of narrative medicine into medical education in China remains in its early stages [8]. Previous studies have largely focused on theoretical introductions or evaluations of single-course interventions [9, 10], with few examining the educational effects of narrative medicine across the full spectrum of medical training. Empirical attention to its aesthetic dimension—namely, the cultivation of perceptiveness and empathy through literature, visual arts, and related practices—remains particularly scarce.

These gaps raise a deeper question: what is the value of educational practices that do not yield immediate, measurable outcomes? This question resonates with the ancient Chinese philosopher Zhuangzi's notion of the "usefulness of the useless"—the idea that things appearing to lack direct utilitarian purpose may, in fact, serve more fundamental human needs [11]. In the Western philosophical tradition, Aristotle's concept of *phronesis* (practical wisdom) offers a complementary perspective: it is a context-situated, value-oriented capacity for judgment, distinct from technical skill (*techne*) and theoretical knowledge (*episteme*) [12]. The aesthetic perception and empathy cultivated through narrative medicine practices are concrete manifestations of *phronesis* in medical education. However, the core proposition—whether students perceive the seemingly "useless" aesthetic practices in narrative medicine as valuable—has yet to be systematically examined.

The present study aims to address this gap by evaluating the educational effectiveness of the full-cycle narrative medicine training pathway implemented at Sun Yat-sen Memorial Hospital of Sun Yat-sen University since 2017. This pathway covers four stages: early clinical experience in Year 1, clinical clerkship in Year 4, clinical internship, and residency and graduate education. Between 2023 and 2025, a total of 10 narrative medicine-related courses were offered, generating systematic post-course evaluation data. Specifically, the study sought to answer the following five questions: (1) What is the student endorsement rate for the necessity of narrative medicine educational content, and does this rate differ across course types? (2) What teaching formats do students prefer, and do aesthetically experiential activities outperform knowledge-transmission approaches? (3) What are the endorsement rates among students regarding the necessity of parallel chart (reflective writing) and its value for physician-patient communication? (4) How do students rate themselves across various dimensions of narrative understanding and empathic competence, and is there a gap between "reception/understanding" and "recall/articulation"? (5) Do students perceive narrative medicine

competencies as transferable across disciplines—thereby providing empirical support for the proposition of the "usefulness of the useless"?

## Methods

### Study Design

This study employed a multi-cohort cross-sectional survey design to evaluate the educational acceptability and perceived value of aesthetic practices in narrative medicine within a full-cycle medical training pathway. Data were derived from post-course and end-of-term teaching evaluation questionnaires accumulated by the research team across 10 narrative medicine-related courses offered between September 2023 and December 2025. This was a retrospective data analysis; all data were collected during routine teaching activities and did not involve any additional interventions or examinations for study participants.

### Study Setting and Educational Context

The study was conducted at Sun Yat-sen Memorial Hospital of Sun Yat-sen University and the Zhongshan School of Medicine, Sun Yat-sen University. Since 2017, the teaching team has established a full-cycle narrative medicine training pathway comprising "early clinical experience in the first year—clinical clerkship in the fourth year—clinical internship—residency and graduate education," which includes the following stages:

- (1) **Early clinical experience in the first year:** Narrative awareness is cultivated through the bioethical perspective of "everyone as a caregiver." Students are assigned as "story collectors" to interact with pediatric patients and write narratives titled "The First Young Patient I Met."
- (2) **Clinical clerkship in the fourth year:** Students complete the transition from "writing medical records" to "writing stories" through systematic engagement in parallel chart reflective writing.
- (3) **Clinical internship:** Parallel chart writing and narrative reflection competencies are further deepened during clinical internship.
- (4) **Residency and graduate education:** Narrative-based clinical interviewing, palliative care communication, and physician-patient communication are integrated into daily practice and extended to multiple disciplines, including general practice, ultrasound, dentistry, and geriatric medicine.

Under this full-cycle training framework, a total of 10 narrative medicine-related courses were offered between September 2023 and December 2025, covering elective courses, specialized courses, general education courses, Introduction to Medical Humanities, clerkship courses, and Pathology and Health. All courses incorporated the core narrative medicine teaching modules—close reading training and reflective writing—and integrated varying degrees of arts and aesthetic experiences (e.g.,

recommendations of films and literary works, observation of historical hospital architecture, and role-play based on medical dramas).

## Participants

### Inclusion Criteria

Questionnaire data collected between September 2023 and December 2025 that met the following criteria were included:

- (1) Students who enrolled in or attended narrative medicine-related courses offered by Sun Yat-sen Memorial Hospital of Sun Yat-sen University or the Zhongshan School of Medicine, Sun Yat-sen University;
- (2) Those who completed the post-course or end-of-term questionnaire;
- (3) Those with complete questionnaire data and no missing key variables.

### Exclusion Criteria

- (1) Questionnaires with obvious patterned responses (e.g., selecting the same option for all items);
- (2) Duplicate submissions (only the first submission was retained).

### Sample Composition

This study comprised five data modules, with samples in each module being independent of one another (derived from different questionnaires or different item sets within the same questionnaire). The specific composition was as follows:

- (1) **Necessity endorsement module:** Nine post-course and end-of-term questionnaires were included, with 541 valid respondents.
- (2) **Teaching format preferences module:** Ten questionnaires were included, with 773 valid person-responses (multiple-choice question).
- (3) **Parallel chart value module:** One dedicated parallel chart practice questionnaire was included, with 116 valid respondents.
- (4) **Narrative understanding and empathic competence self-rating module:** Three post-course questionnaires (autumn 2025) were included, with 174 valid respondents.
- (5) **Non-clinical transferability module:** Four questionnaires were included, with 275 valid respondents.

Participants across modules were primarily clinical medicine students at various academic levels (Year 1 to Year 5, clerkship students, residents, and graduate students). A small number of courses were open to all undergraduates across the university (including non-medical majors such as philosophy and piano performance). As data were collected anonymously, specific demographic characteristics were not recorded.

## Teaching Intervention Overview

The teaching interventions involved in this study were based on the core teaching content of each course within the full-cycle narrative medicine education system, primarily comprising the following three categories.

### Close Reading Training

Students were guided to closely read classic literary works (e.g., medical-themed writings by Chekhov and Lu Xun), patient autobiographies, and disease-narrative films, with analysis focusing on narrative perspective, emotional tone, bodily metaphors, and moments of silence and rupture. Close reading training was designed to cultivate students' clinical perception and aesthetic attention, training them to transfer analytical tools from literary criticism to the interpretation of "clinical texts," including patients' oral narratives, medical records, and even body language.

Specific teaching examples included: (a) comparative close reading of two parallel charts, *A Territory in Need of Translation* and *The Pen Weighs Heavier Than a Thousand Pounds*, to guide students in recognizing the "two-mirror" effect between professional pathology reports and patient self-narratives; (b) a free-writing exercise titled "Look and Write" using Picasso's painting *The Medical Student* as stimulus; and (c) physician-patient dialogue demonstration and role-play (translating pathology reports into metaphorical language comprehensible to patients).

### Reflective Writing (Parallel Chart)

Students were required to write in the first person about authentic clinical encounters, with emphasis on four dimensions: scene reconstruction, detail focusing, emotion and reflection, and empathic extension. Writing was not scored or graded, and authentic expression was encouraged. Quality evaluation employed a peer/instructor feedback framework of "positive feedback + constructive questioning + judgment-free approach," focusing on narrative completeness, emotional resonance, and depth of reflection. The specific process was exemplified by the resident training session titled *The Power of Expectation—My Clinical Growth Narrative*: participants wrote a real clinical episode related to "expectation" within 10 minutes, followed by small-group sharing and peer feedback.

### Direct Integration of Arts and Aesthetics

Multiple art forms were integrated into classroom teaching, including but not limited to: (a) observation of historical hospital architecture—students visited the hospital’s five heritage buildings, treating space as a text for “close reading”; (b) medical drama observation and role-play—students observed and performed scenes from the physician-patient drama *The Weight of a Diagnosis*, practicing “double listening” (listening to both the disease and the emotion); (c) music and emotional perception—students applied the “listening—empathy—narrative” approach acquired in the course to conduct music-based narrative practices for patients; and (d) recommendations of narrative medicine-related films and literary works as extracurricular extension materials.

## **Outcome Measures and Measurement Tools**

This study comprised five outcome indicator modules, each measured using self-designed questionnaires. All questionnaires were part of routine teaching evaluations, distributed by course instructors after course completion, and completed voluntarily and anonymously by students.

### **Necessity Endorsement**

A single item was used: “Is it necessary to include narrative medicine educational content?” with a “yes/no” dichotomous response option. Data were derived from nine post-course and end-of-term questionnaires across different courses, with 541 valid respondents.

### **Teaching Format Preferences**

A multiple-choice question was used: “Which teaching formats would you prefer?” with options including: (a) recommended films and literary works; (b) mini-lectures; (c) didactic lectures; (d) bedside teaching; (e) small-group reading, analysis, and discussion of parallel charts; and (f) micro-lectures. Data were derived from ten questionnaires, with 773 valid person-responses.

### **Perceived Value of Parallel Chart**

Two items were used: (a) “Is it necessary to include parallel chart writing as educational content?” and (b) “Does parallel chart writing help with physician-patient communication?” Both employed “yes/no” dichotomous response options. Data were derived from one dedicated parallel chart practice questionnaire, with 116 valid respondents.

### **Self-rated Narrative Understanding and Empathic Competence**

A 5-point Likert scale (1 = strongly agree, 5 = strongly disagree) was used, comprising the following five items: (a) understanding the deeper meanings of emotions; (b) maintaining focused attention and providing responses when listening to others; (c) understanding a complex story from multiple perspectives; (d) clearly recounting the content after reading or listening to a story; and (e) perceiving emotional changes in others during communication. Data were derived from three post-course questionnaires (autumn 2025), with 174 valid respondents. Endorsement rates (proportion selecting “strongly agree” or “agree,” i.e., options 1 or 2) were reported in the analysis.

# Non-clinical Transferability

A single item was used: “Do you think narrative medicine content is helpful for future clinical work or for non-clinical work (e.g., languages, science and engineering, finance and economics, arts, law and politics)?” with a “yes/no” dichotomous response option. Data were derived from four questionnaires, with 275 valid respondents.

## Data analysis

Data were analyzed using SPSS version 26.0. Categorical data were presented as frequencies and percentages (%). Endorsement rates for necessity endorsement, parallel chart value, and non-clinical transferability were calculated with 95% confidence intervals using the Clopper-Pearson method. For teaching format preferences (a multiple-choice question), the selection rate for each option was calculated (number of selections / total person-responses). For self-rated narrative understanding and empathic competence, endorsement rates for each item (proportion selecting “strongly agree” or “agree”) were calculated. Comparisons of necessity endorsement rates across different course types were performed using the chi-square test, with  $P < 0.05$  considered statistically significant (two-sided). Bonferroni correction was applied for post-hoc pairwise comparisons when necessary. Open-ended textual responses were analyzed using thematic analysis, with two researchers coding independently and reaching consensus through discussion to extract core themes as supplementary data to the quantitative findings.

## Results

### Participant Characteristics

This study comprised five data modules, with samples in each module derived from the 10 narrative medicine-related courses offered between September 2023 and December 2025. The sample size, data source, and core variables for each module are presented in Table 1.

Table 1  
Composition of data modules

| Data module                   | Sample size          | Number of questionnaires | Core variable                                                                      |
|-------------------------------|----------------------|--------------------------|------------------------------------------------------------------------------------|
| Necessity endorsement         | 541                  | 9                        | Whether narrative medicine educational content is necessary                        |
| Teaching format preferences   | 773 person-responses | 10                       | Preferred teaching formats (multiple choice)                                       |
| Parallel chart value          | 116                  | 1                        | Necessity of parallel chart; value for physician-patient communication             |
| Narrative/empathy self-rating | 174                  | 3                        | Five items on narrative understanding and empathic competence (1 = strongly agree) |
| Non-clinical transferability  | 275                  | 4                        | Whether helpful for future clinical or non-clinical work                           |

## Necessity Endorsement

Among the nine post-course and end-of-term questionnaires (n = 541), 97.4% (527/541) of students endorsed the necessity of integrating narrative medicine educational content (95% CI: 95.7%–98.5%). Endorsement rates by course type are shown in Table 2: 98.5% (194/197) for elective courses, 97.7% (85/87) for specialized courses, 98.2% (219/223) for general education courses, and 85.3% (29/34) for clerkship. The differences in endorsement rates across course types were statistically significant ( $\chi^2=21.279$ , df = 3,  $P < 0.001$ ). Post-hoc pairwise comparisons with Bonferroni correction revealed that the clerkship endorsement rate was significantly lower than those of elective, specialized, and general education courses, with no significant differences among the latter three.

Table 2  
Endorsement of the necessity of narrative medicine educational content by course type (n = 541)

| Course type                                                                                                           | Number endorsing | n   | Endorsement rate (%) | 95% CI    |
|-----------------------------------------------------------------------------------------------------------------------|------------------|-----|----------------------|-----------|
| Elective                                                                                                              | 194              | 197 | 98.5                 | 95.6–99.5 |
| Specialized                                                                                                           | 85               | 87  | 97.7                 | 92.0–99.4 |
| General education                                                                                                     | 219              | 223 | 98.2                 | 95.5–99.3 |
| Clerkship                                                                                                             | 29               | 34  | 85.3                 | 69.9–93.6 |
| Total                                                                                                                 | 527              | 541 | 97.4                 | 95.7–98.5 |
| <i>Note: The clerkship cohort consisted of Year 2 basic medical sciences students in a one-day clerkship in 2024.</i> |                  |     |                      |           |

# Teaching Format Preferences

Among the 773 person-responses, the selection rates for the six teaching formats are presented in Table 3. The most preferred format was “recommended films and literary works” (565 responses, 73.1%), followed by “mini-lectures” (422 responses, 54.6%). “Didactic lectures” (328 responses, 42.4%) and “bedside teaching” (322 responses, 41.7%) showed similar selection rates, while “small-group reading, analysis, and discussion of parallel charts” (316 responses, 40.9%) and “micro-lectures” (232 responses, 30.0%) were relatively less preferred.

Table 3  
Student preferences for narrative medicine teaching formats (multiple choice, n = 773 person-responses)

| Teaching format                                                                                                                                                                    | Number of selections | Selection rate (%)* |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|---------------------|
| Recommended films and literary works                                                                                                                                               | 565                  | 73.1                |
| Mini-lectures                                                                                                                                                                      | 422                  | 54.6                |
| Didactic lectures                                                                                                                                                                  | 328                  | 42.4                |
| Bedside teaching                                                                                                                                                                   | 322                  | 41.7                |
| Small-group reading, analysis, and discussion of parallel charts                                                                                                                   | 316                  | 40.9                |
| Micro-lectures                                                                                                                                                                     | 232                  | 30.0                |
| <i>Note: Selection rate = number of selections for the option / total person-responses (773). As this was a multiple-choice question, the sum of selection rates exceeds 100%.</i> |                      |                     |

## Perceived Value of Parallel Chart

Among students who participated in parallel chart practice (n = 116), 93.1% (108/116) endorsed the necessity of including parallel chart writing as educational content (95% CI: 87.0%–96.5%), and 94.0% (109/116) perceived parallel chart as helpful for physician-patient communication (95% CI: 88.1%–97.0%) (Table 4).

Table 4  
Endorsement of the perceived value of parallel chart practice (n = 116)

| Evaluation item                                               | Number endorsing | n   | Endorsement rate (%) | 95% CI    |
|---------------------------------------------------------------|------------------|-----|----------------------|-----------|
| Parallel chart writing is necessary as educational content    | 108              | 116 | 93.1                 | 87.0–96.5 |
| Parallel chart is helpful for physician-patient communication | 109              | 116 | 94.0                 | 88.1–97.0 |

# Self-rated Narrative Understanding and Empathic Competence

In the three post-course questionnaires administered in autumn 2025 (n = 174), students rated their narrative understanding and empathic competence across five items using a 5-point Likert scale (1 = strongly agree, 5 = strongly disagree). Endorsement rates (selecting “strongly agree” or “agree”) ranged from 75.3% to 92.5% (Table 5). Items ranked by endorsement rate from highest to lowest were: maintaining focused attention and providing responses when listening to others (92.5%, 95% CI: 87.6%–95.6%), understanding the deeper meanings of emotions (92.0%, 95% CI: 86.9%–95.1%), perceiving emotional changes in others during communication (87.4%, 95% CI: 81.6%–91.5%), understanding a complex story from multiple perspectives (83.3%, 95% CI: 77.1%–88.1%), and clearly recounting the content after reading or listening to a story (75.3%, 95% CI: 68.4%–81.1%).

Table 5  
Endorsement rates for self-rated narrative understanding and empathic competence (n = 174)

| Item                                                                           | Endorsement rate (%) | 95% CI    |
|--------------------------------------------------------------------------------|----------------------|-----------|
| Maintaining focused attention and providing responses when listening to others | 92.5                 | 87.6–95.6 |
| Understanding the deeper meanings of emotions                                  | 92.0                 | 86.9–95.1 |
| Perceiving emotional changes in others during communication                    | 87.4                 | 81.6–91.5 |
| Understanding a complex story from multiple perspectives                       | 83.3                 | 77.1–88.1 |
| Clearly recounting the content after reading or listening to a story           | 75.3                 | 68.4–81.1 |

## Non-clinical Transferability

In response to the question “Do you think narrative medicine content is helpful for future clinical work or for non-clinical work (e.g., languages, science and engineering, finance and economics, arts, law and politics)?” 93.5% (257/275) of students across four questionnaires (n = 275) responded affirmatively (95% CI: 89.9%–95.8%).

## Open-ended Feedback

Open-ended written responses in the questionnaires further supported the quantitative findings. Students’ spontaneous comments clustered around the following core themes:

**(1) Bridging medicine and the humanities.** Students wrote that narrative medicine served as a bridge “connecting medicine and the humanities,” and that it “opened a warm and profound ray of light on my

existing cognitive map of medicine,” allowing them “to see the colors and shadows of humanity that are filtered out by standard medical records.”

**(2) Direct translation into clinical competence.** One student noted that “solid narrative competence can directly translate into clinical competence; on one hand, it improves diagnostic accuracy—patients’ stories often contain clues that instruments cannot detect.” Another student described parallel charts as “a tangible tool for cultivating humanistic competence in physicians... Through writing parallel charts, interns need to communicate with patients in detail.”

**(3) Professional identity and life education.** Students’ responses frequently expressed perceptions of the “warmth” of medicine, such as “my greatest takeaway is realizing that medicine is a warm discipline,” and “behind every prescription lies a living, breathing life carrying a unique story.” Regarding the value of reflective writing, one student wrote: “experience without reflection is merely a running account; only experience that has been reflected upon can become a lighthouse illuminating the future.”

In addition, among 238 open-ended surveys, the vast majority of students were able to identify a “most memorable course/patient/family member” and describe the narrative details in depth—for example, one student wrote “he looked at me and finally showed a smile that I hadn’t seen for a long time,” and another noted “the patient in the next bed donated blood to help—there is true compassion in this world.” These responses suggest that the aesthetic and ethical dimensions of illness narratives have been internalized by learners.

## Discussion

# Main Findings

This study, based on post-course and end-of-term questionnaire data from 10 narrative medicine-related courses offered between 2023 and 2025, systematically evaluated the educational acceptability and perceived value of aesthetic practices in narrative medicine within a full-cycle training pathway. Five core findings emerged.

First, 97.4% of students endorsed the necessity of integrating narrative medicine educational content, with endorsement rates exceeding 97% across elective, specialized, and general education courses, while clerkship students showed a relatively lower rate (85.3%). Second, the most preferred teaching format was “recommended films and literary works” (73.1%), significantly higher than “didactic lectures” (42.4%) and “micro-lectures” (30.0%), suggesting that aesthetically experiential activities were favored over didactic knowledge transmission. Third, among students who completed parallel chart practice, 93.1% endorsed the necessity of this educational content, and 94.0% perceived it as helpful for physician-patient communication. Fourth, in self-rated narrative understanding and empathic competence, items related to “listening and understanding” (92.0%–92.5%) showed higher endorsement than those related to “recalling and articulating” (75.3%), indicating that students were more likely to perceive growth on the “reception” side while feeling relatively less confident on the “expression” side.

Fifth, 93.5% of students perceived narrative medicine competencies as helpful for both future clinical and non-clinical work, providing preliminary empirical evidence for the cross-disciplinary transferable value of the "usefulness of the useless."

Collectively, these findings point to a central conclusion: aesthetic practices in narrative medicine—primarily in the forms of close reading, reflective writing, and arts integration—received broad student acceptance across the full-cycle medical education pathway, and their value was perceived by students as transferable to multiple domains, both clinical and non-clinical. Each finding is discussed in detail below.

## **High Acceptance and the Systemic Effect of the Full-Cycle Training Pathway**

The 97.4% endorsement rate for the necessity of narrative medicine content observed in this study represents a relatively high level of acceptance. A systematic review and meta-analysis has shown that while medical humanities programs can enhance empathy, the heterogeneity of intervention effects is considerable, and the effectiveness of programs exceeding 12 months in duration tends to diminish [13]. The high endorsement rate in this study may be attributable to two features of the instructional design. First, narrative medicine content was embedded across the full-cycle training pathway rather than concentrated in single lectures or short-term courses, which may have mitigated the attenuation effect commonly seen in one-time interventions. Second, the teaching format was predominantly experience-based aesthetic activities (e.g., film and literary recommendations, bedside teaching, and parallel chart reading), rather than purely didactic instruction.

Notably, the endorsement rate for clerkship students (85.3%) was lower than that for elective, specialized, and general education courses. This difference may be explained by multiple factors. First, the clerkship sample size was relatively small ( $n = 34$ ), limiting statistical stability. Second, the clerkship stage represents students' first exposure to the high-pressure environment of pediatric clinical practice—characterized by low patient cooperation, heightened parental vigilance, and narrow procedural windows [14]—which may lead students to prioritize skill acquisition within a limited time frame, potentially creating cognitive conflict with narrative training that does not yield immediate procedural outcomes. This interpretation is consistent with prior research suggesting that narrative training requires a psychologically safe environment [15]: when learners experience stress in authentic clinical settings, receptivity to humanistic content may temporarily give way to technical demands. This finding highlights the importance of timing in narrative medicine education: cultivating narrative awareness prior to entry into high-pressure clinical environments—such as during early clinical experience in the first year—may be more effective than intensive delivery during clerkship rotations.

## **The "Usefulness of the Useless" in Empirical Perspective: Aesthetic Preferences and Cross-Disciplinary**

# Transferability

A notable finding was that 93.5% of students perceived narrative medicine competencies as helpful for future non-clinical work (e.g., in languages, science and engineering, finance and economics, arts, law, and political science). This result provides empirical support for the proposition of the "usefulness of the useless." Students' open-ended responses offered concrete corroboration: one student described parallel chart writing as "a tangible tool for cultivating humanistic competence in physicians," while another noted that it provided "more practical skills for students who are deeply engaged in medical theory." Theoretically, this finding can be understood from two perspectives.

From the perspective of Zhuangzi's philosophy, the core of the "usefulness of the useless" lies in the idea that things appearing incapable of producing immediate practical effects—such as aesthetic cultivation and narrative practice—may, in fact, serve more fundamental purposes: preserving the wholeness of personhood [16, 17]. Students' perception of narrative competence as transferable to non-clinical domains suggests that they recognized narrative competence not as a clinical-specific skill, but as a foundational capacity for perception and expression—one that can function in any context requiring understanding of others, responsiveness to others, and connection with unfamiliar worlds.

From the perspective of Aristotle's practical wisdom, *phronesis* is a capacity for context-situated, value-oriented judgment, distinct from pure technical skill (*techné*) and abstract theoretical knowledge (*episteme*) [18]. The aesthetic perception and empathy cultivated through narrative medicine are concrete manifestations of *phronesis* in the medical context. Students' recognition of the cross-contextual value of this competence may stem from their awareness that practical wisdom itself is cross-contextual: listening to patients in the clinic, understanding humanity in artistic creation, and perceiving others in business negotiation all draw upon a shared set of cognitive and emotional skills.

## Parallel Charts: The Clinical Value of Reflective Writing as a Tool

The endorsement rate of 93.1%–94.0% for the value of parallel charts is highly consistent with the expert consensus in the field of narrative medicine in China [6], which positions parallel chart as a core practical tool of narrative medicine and emphasizes its function in helping medical professionals understand patients, reflect on themselves, and build empathy. The qualitative feedback from this study further elaborated on this function: students wrote that "writing parallel charts is not only a demonstration of competence, but also a tangible tool for cultivating humanistic qualities in physicians," and that "through writing parallel charts, interns need to communicate with patients in detail"—suggesting that students viewed writing as a form of "forced deep listening."

This finding also resonates with Ricoeur's concept of narrative identity. The concept holds that personal identity is not a static entity, but a meaningful whole continuously constructed and reconstructed through narratives [19, 20]. Through writing parallel charts, students not only documented patients' suffering, but also recalibrated their own professional identities through narrative—"Why did I choose

medicine?" and "How was I moved by this story?" In other words, the value of parallel charts lies not only in the written product, but more fundamentally in the writing process itself, which constitutes an ethical practice of identity construction.

However, the finding that "recalling and articulating" (75.3%) scored lower than "listening and understanding" (92.0%–92.5%) in self-rated narrative understanding and empathy points to a noteworthy pedagogical gap: students may be adept at receiving and perceiving narrative information, yet lack confidence when transforming it into their own language and conveying it to others. This resonates with the progression logic of "from reception to expression" in close reading training as described in previous research [21, 22]: input alone without output renders narrative competence incomplete. Future teaching should strengthen expressive training, such as oral retelling and narrative reporting, to help students bridge the gap from "inner perception" to "external articulation."

## Structural Advantages of the Full-Cycle Pathway

The full-cycle training pathway constructed by our research team since 2017—comprising “early clinical experience in the first year—clinical clerkship in the fourth year—clinical internship—residency and graduate education”—exhibited a notable pattern in the data: student acceptance of narrative medicine remained consistently high across all stages (with the exception of the clerkship, which was slightly lower due to context-specific factors). This pattern stands in contrast to the attenuation of intervention effects over extended durations reported in the systematic review [13]. A possible explanation is that the narrative medicine education in this study was not delivered as a uniformly distributed single intervention, but rather recurred in different forms across different stages—beginning with story collection in the first year, deepening through parallel chart writing during clerkship, and consolidating through daily integration during internship and residency—with the depth and format of each exposure matching the learner's level of clinical experience, rather than being a simple repetition.

Previous research has noted that illness narratives belong not only to patients but also to caregivers—physicians similarly need to integrate their professional experiences through narrative [23]. This is precisely the design logic of the full-cycle pathway: it does not “teach” narrative medicine to students as a standalone course, but embeds it throughout the entire process of professional socialization, allowing narrative competence to grow progressively through spiral practice.

## Limitations and Future Directions

This study has several limitations. First, the cross-sectional survey design meant that all data were collected at a single time point, precluding causal inference; the findings reflect students' perceptions and acceptance of narrative medicine teaching, rather than the objective impact of narrative training on clinical behaviors. Second, this was a single-center study, with all data derived from Sun Yat-sen Memorial Hospital of Sun Yat-sen University and the Zhongshan School of Medicine, Sun Yat-sen University. Participants were predominantly students from a top-tier domestic institution, whose baseline humanistic literacy may be higher than that of students at typical medical schools, thereby limiting the

generalizability of the findings. Third, the questionnaires used in this study were routine teaching evaluation tools; although closely aligned with course content, they lacked standardized validation of reliability and validity, and self-reported data are susceptible to social desirability bias. Fourth, the data modules originated from different sources, precluding integrated analysis; the clerkship sample size was relatively small ( $n = 34$ ), limiting statistical stability, and the finding that clerkship endorsement rates were lower than those of other course types should be interpreted with caution. Fifth, the lack of uniform demographic baseline data (e.g., age, sex, year of study) across modules limited the depth of subgroup analyses. Sixth, this study operationalized “aesthetic practices” into three categories—close reading, reflective writing, and arts integration—but the specific proportions and implementation depth of these three types varied across courses, making it impossible to determine which practice format contributed most. Seventh, this study did not follow up on students' sustained narrative competence after graduation, and thus could not assess the long-term effectiveness of the teaching.

Future research could employ pre-post intervention designs with standardized instruments (e.g., the Jefferson Scale of Empathy) to evaluate teaching effectiveness; conduct multi-center, cross-regional, and cross-institutional comparative studies to enhance generalizability; introduce observational measures (e.g., video analysis of physician-patient communication) or third-party evaluations to complement self-report data; adopt factorial designs to assess the independent and interaction effects of each pedagogical element; and establish longitudinal follow-up cohorts to track the long-term impact of narrative training on professional identity, burnout, and clinical practice.

## Implications for Medical Education Practice

The above findings offer three considerations for the design of narrative medicine curricula. First, students' strong preference for films and literary works suggests that the entry point for narrative medicine courses should be aesthetic rather than cognitive—engaging students with narrative content before guiding them to analyze its structure may be more effective than directly teaching narrative theory, as the ultimate value of close reading training lies in transferring the habits acquired through literary reading—“attention to detail, tolerance of ambiguity, and acceptance of multiple interpretations”—to clinical perception [24]. Second, the full-cycle pathway design suggests that distributing narrative training across key nodes of medical education, rather than concentrating it in a single elective course, may help avoid the attenuation effect of “one-time interventions” and may facilitate the concurrent development of narrative competence and clinical experience. Third, the finding that “output” lagged behind “input” in student self-ratings suggests that current teaching should place greater emphasis on “expression” alongside “reception.” Future curricula should incorporate more expressive training—such as oral retelling and narrative reporting—to help students complete the transition from internal empathy to external communication.

## Conclusions

This study systematically evaluated the educational acceptability and perceived value of aesthetic practices—centered on close reading, reflective writing, and arts integration—within a full-cycle narrative medicine training pathway implemented at a large teaching hospital in China. Drawing on data from 10 narrative medicine-related courses offered between 2023 and 2025, the findings demonstrated consistently high student endorsement across multiple dimensions: 97.4% of students recognized the necessity of integrating narrative medicine content into the curriculum, 93.1%–94.0% endorsed the value of parallel chart writing for physician-patient communication, and 93.5% perceived narrative medicine competencies as transferable to non-clinical career paths. Notably, the preference for aesthetically experiential activities (e.g., films and literary works) over didactic lectures suggests that affective and experiential engagement may serve as a more effective entry point for narrative training than cognitive instruction alone. Theoretically, these findings lend preliminary empirical support to the proposition of the "usefulness of the useless"—rooted in Zhuangzi's philosophy and echoed in Aristotle's *phronesis*—by demonstrating that students recognize narrative competence as a foundational, transferable capacity across diverse contexts. Practically, the results suggest that narrative medicine curricula should prioritize aesthetic engagement before theoretical instruction, embed training longitudinally across the full training continuum to sustain its effects, and strengthen expressive skills (e.g., oral retelling, narrative reporting) to bridge the gap between receptive understanding and articulate communication. While the cross-sectional design, single-center setting, use of non-validated self-designed questionnaires, and small clerkship subsample limit causal inference and generalizability, the study provides empirical grounding for integrating aesthetic-narrative practices systematically into core medical curricula—an endeavor that merits continued exploration as medical education strives to cultivate not only technically competent but also humanistically grounded physicians.

## Abbreviations

CI    Confidence Interval

SPSS   Statistical Package for the Social Sciences

## Declarations

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### Authors' Contributions

Li Pinggan (LPG) and Cai Guiyi (CGY) contributed equally to this work and share co-first authorship. LPG conceptualized the study, designed the teaching intervention, and drafted the initial manuscript. CGY coordinated the course implementation, collected the questionnaire data, and performed the statistical analysis. Qing Yonghong (QYH) and Zhu Tianxiang (ZTX) participated in the design of the narrative medicine curriculum and delivered the close reading and reflective writing sessions. Chen Suijun (CSJ), Zhou Dunhua (ZDH), and Liang Liyang (LLY) contributed to the implementation of the full-cycle training pathway and the collection of teaching evaluation data. Cheng Yu (CY) and Zhou Xiaolin (ZXL) are co-corresponding authors. CY supervised the overall research framework, provided theoretical guidance on narrative medicine and medical humanities, and revised the manuscript critically for intellectual content. ZXL designed the study, secured the funding, coordinated the multi-stage training program, and revised the final manuscript. All authors have read and approved the final manuscript.

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## **Data availability**

The datasets generated and/or analyzed during the current study are not publicly available due to the protection of students’ personal privacy but are available from the corresponding author (Zhou Xiaolin) upon reasonable request. The questionnaires used in this study are stored in the teaching management system of Sun Yat-sen Memorial Hospital and can be provided to qualified researchers after approval by the hospital’s ethics committee and teaching administration.

## **Ethics approval and consent to participate**

This study was approved by the Ethics Committee of Sun Yat-sen Memorial Hospital of Sun Yat-sen University (approval number: SYSEC2-2026-BA-1161). The study was conducted in accordance with the Declaration of Helsinki. Due to the retrospective and anonymized nature of the data analysis, which derived from routine teaching evaluations and did not involve additional interventions or personal privacy, the Ethics Committee granted a waiver of informed consent. All data were collected as part of routine teaching activities, and students completed the questionnaires voluntarily and anonymously.

## **Consent for publication**

Not applicable.

## **Competing interests**

The authors declare no competing interests.

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