



Original Article

Exploring medical humanities from heterogeneous focus groups: A thematic analysis

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ABSTRACT

Objectives: Medical humanities has evolved to encompass a multidisciplinary approach, integrating humanities, social sciences, and arts into medical education and practice. Despite its flourishing development, the definition of medical humanities still requires refinement to be inclusive of various cultures and regions. This study aimed to explore perceptions among students, physicians, and nurses, with a focus on the definition, learning, and implementation of medical humanities. **Materials and Methods:** We conducted four heterogeneous focus groups, comprising 4th-year and 6th-year medical students, physicians (including three medical humanities educators), and nurses. Data collection utilized semi-structured guiding questions, followed by thematic analysis. The transcripts were manually analyzed in their original Mandarin, and participant names were anonymized to ensure that the authors remained unaware of the participants' identities throughout the study. **Results:** The analysis identified three themes and 16 subthemes. Theme 1, "Medical Humanities Properties," included four subthemes: variety, involvement, clinical relevancy, and the value of humaneness. Theme 2, "Medical Humanities Contents," comprised seven subthemes: self-cultivation, communication, empathy, cultural competence, medical ethics and law, embodiment, and one subtheme open for interpretation in varying circumstances. Theme 3, "Medical Humanities Cultivation," included five subthemes: personal growth, curriculum, multimedia, clinical experience, and metacognition. **Conclusion:** Our study introduces a three-layered framework of medical humanities, emphasizing the field's dynamic nature and the critical role of experiential learning in developing key competencies such as empathy, awareness, and communication. This framework incorporates the concept of "self-cultivation" from Eastern philosophy, accentuating the significance of well-being for health-care professionals. The research not only enriches medical humanities education and practice by incorporating Eastern perspectives but also deepens the overall understanding of humanity in health care.

KEYWORDS: *Heterogeneous focus group, Medical humanities, Thematic analysis*

INTRODUCTION

The field of medical humanities, emerging since the 1960s, represents an interdisciplinary confluence of humanities (literature, philosophy, ethics, history, and religion), social sciences (anthropology, cultural studies, psychology, and sociology), and arts (literature, theater, film, multimedia, and visual arts), applied to health-care education and practice [1-4]. Medical humanities marked a significant transformation in medical education and practice [5,6]. It aligned with biomedical sciences by introducing programs in social sciences and humanities, emphasizing human rights, and incorporating patient perspectives, fostering a holistic approach to health care [2,5,7].

Medical education has increasingly incorporated the arts and humanities as a teaching modality, establishing myriad interventions and curricular models in universities and medical schools worldwide in recent decades. This integration has expanded to encompass broader aspects such as public health and health policy, fostering a more holistic perspective on societal and global health [1,8,9]. However, health-care providers in earlier years often lacked formal

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education in humanities, relying on practical experiences like shadowing to shape their understanding. Today, medical humanities curricula are characterized by diverse approaches, including visual arts, narrative medicine, reflective writing, community engagement, fieldwork, and various humanism courses [8,10]. The educational outcomes of the medical humanities curriculum, encompassing both formal and elective components, as well as extracurricular activities, extend from undergraduate to continuing medical education. This comprehensive approach could foster empathic care and enhance health-care professionals' communication and collaborative skills [11]. Addressing the broader objectives of humanistic medical care, efforts are made to raise awareness and deepen learners' insight into their personal and professional development [2,10].

Despite its flourishing development, the definition and content of medical humanities remains ambiguous, with interpretations varying across different regions and cultures [10]. This lack of clear articulation or attribution is reflected in diverse pedagogical goals and areas of inquiry [10]. A systemic review of medical humanities educational outcomes indicates a prevalence of definitions primarily originating from New York University or incorporating perspectives from countries such as the USA, the UK, Spain, and Australia [10]. These viewpoints have been identified as potentially marginalizing local cultural diversity and values in other contexts [12]. For example, in Chinese culture, the word for “four” (sì in Pinyin) is phonetically similar to the word for “death” (sǐ in Pinyin). Consequently, in deference to the concerns and potential apprehensions of patients, health-care facilities operating in regions influenced by Chinese cultural norms conscientiously avoid assigning floor or room numbers that incorporate the numeral four. Scholars have noted an ongoing lack of clarity regarding the definition of medical humanities and questioned what exactly constitutes medical humanities [13,14]. Others emphasize the importance of refining and articulating ideas about medical humanities to make them more clinically and pedagogically appropriate to specific cultures, societies, and values [10].

To explore diverse perspectives from group members among undergraduate medical students, physicians, and nurses in a religious health-care institute, we utilized heterogeneous focus groups as our research method. The investigation is guided by two research questions:

RQ1: What core attributes do medical students, health-care providers, and medical humanities educators associate with the conceptualization of medical humanities? RQ2: What are the methods or strategies for cultivating medical humanities?

MATERIALS AND METHODS

Methodology selection

While the concept of medical humanities has been extensively discussed in prior studies, and numerous experts have offered their perspectives, limited models have been proposed to elucidate this domain. To address this gap and facilitate exploratory insights, our study adopts a qualitative and inductive approach grounded in data.

Participants

This study engaged 33 participants, divided into four heterogeneous focus groups. The participant groups consisted of seven 4th-year medical students without clinical experience, six 6th-year medical students with 2 years of clinical training from Tzu Chi Hospital, nine senior nurse leaders with an average job tenure of 29 years, and 11 physicians, averaging 20 years of job tenure, of whom three had formal medical humanities training [Table 1 for detailed participant demographics]. Medical students represent the future of health-care first line, nurses provide invaluable insights into patient care, and physicians bring years of clinical experience. These frontline health-care providers directly interact with patients, rendering them ideal cohorts to underscore the significance of practice and explore the diverse impacts of medical humanities across various health-care roles and practical environments. Among the 11 physicians who participated in the study, three possessed expertise in medical humanities, with backgrounds in law, health-care quality improvement, and the arts. This strategic composition enabled the integration of both frontline clinical perspectives and academic expertise, thereby enriching the discourse and analysis.

Instruments

Semi-structured guiding questions, detailed in Appendix 1, served as the primary data collection tool. These questions were crafted based on a comprehensive literature review and reviewed for rigor and relevance by both the authors and an external expert in qualitative methodologies and humanities. The guiding questions were aligned with the three research questions, which focused on the definition or attributes of medical humanities, the cultivating or teaching of medical humanities, and the implementation of medical humanities. Tailored to suit the distinct perspectives of students, nurses, or physicians, the questions varied in wording to ensure contextual relevance and depth.

Research process

The focus groups were conducted in the spring semester of 2021. To ensure methodological consistency, the identical set of instruments was employed across all groups. Each session was recorded in both audio and video formats, transcribed verbatim, and then validated by participants for accuracy and verification of content [15,16].

Thematic analysis was applied to the transcripts [17,18]. The authors collaboratively reviewed and coded the data, identifying key points and compiling relevant textual content. Through iterative review and discussion, themes, and subthemes were developed until a consensus was reached among the authors. Thematic sufficiency was attained when no new themes emerged, indicating the completion of data collection.

To ensure the credibility and trustworthiness of the analysis, two researchers (LYY and TCT) independently coded the narratives. Weekly peer debriefings were conducted to mitigate interpretation bias. The third researcher (SYC) consistently participated in the analytical process. A combination of methods including research diaries, code checking, peer

Table 1: Demographic characteristics of participants

Characteristics	FMS (n=7), n (%)	SMS (n=6), n (%)	Physicians* (n=11), n (%)	Nurses (n=9), n (%)
Gender				
Male	3 (42.9)	5 (83.3)	9 (81.8)	-
Female	4 (57.1)	1 (16.7)	2 (18.2)	9 (100.0)
Age group (years)				
20–29	7 (100.0)	6 (100.0)	-	-
30–39	-	-	3 (27.3)	-
40–49	-	-	3 (27.3)	6 (66.7)
50–59	-	-	1 (9.1)	3 (33.3)
>60	-	-	4 (36.3)	-
Religious belief				
Buddhism	4 (57.1)	4 (66.7)	5 (45.4)	5 (55.6)
Christianity	1 (14.3)	-	1 (9.1)	1 (11.1)
None	2 (28.6)	2 (33.3)	5 (45.4)	3 (33.3)
Highest qualification				
Undergraduate medical student	7 (100.0)	6 (100)	-	-
Bachelor's degree	-	-	3 (27.3)	-
Master's degree	-	-	4 (36.3)	9 (100.0)
Doctoral degree	-	-	4 (36.3)	-

*The physician group includes three medical humanities educators. FMS: 4th-year medical students, SMS: 6th-year medical students

debriefing, member checking, and prolonged engagement with the data was utilized to establish consensus and ensure the accuracy of the findings. Direct quotes were translated from Mandarin to English by a professional linguist and used to support each theme. The three authors confirmed the accuracy of the translations in reflecting the original intent.

Ethics

The study was conducted in accordance with the Declaration of Helsinki and received ethical approval from the Research Ethics Committee of Hualien Tzu Chi Hospital (ID: IRB109-132-B). All participants provided written informed consent, acknowledging their understanding of the study's purpose and their voluntary participation.

RESULTS

The thematic analysis of the heterogeneous focus groups yielded three main themes, each encompassing several subthemes, collectively encapsulating the multifaceted nature of medical humanities as perceived by the participants. Theme 1, “Medical Humanities Properties,” included 4 subthemes: variety, evolvment, clinical relevancy, and value of humaneness. Theme 2, “Medical Humanities Contents,” comprised 7 subthemes: self-cultivation, communication, empathy, cultural competence, medical ethics and law, embodiment, and one subtheme open for interpretation in varying circumstances. Theme 3, “Medical Humanities Cultivation,” included 5 subthemes: personal growth, curriculum, multimedia, clinical experience, and metacognition. Narratives supporting each major theme and subtheme are provided in Appendix 2, offering direct insights from the participants and highlighting the depth and complexity of their experiences and perceptions.

Medical humanities properties

This study highlights that participants view medical humanities as an inherently interdisciplinary field, enriched

by diverse engagements across a wide spectrum of disciplines. The “variety” in medical humanities, originating from different cultural and contextual backgrounds, leads to a range of interpretations and perspectives. The participants observed that medical humanities continually adapts and evolves, with its definitions and components undergoing constant transformation. This reflects the dynamic “evolvment” of medical humanities, which continuously adjusts to new challenges and understandings within the health-care domain.

A significant aspect emphasized by the participants is the “clinical relevancy” of medical humanities in clinical settings. Far from being merely theoretical, medical humanities is regarded as an invaluable tool that deepens understanding of the human condition and enhances patient-centered care. Its practical application is particularly lauded for its role in cultivating the “value of humaneness” within the medical profession. This involves a deep understanding of the self and others, and recognizing patients not simply as cases but as individuals with their own distinct life stories and experiences, thereby enriching the human connection in health care.

Medical humanities contents

This study found that participants perceive the contents of medical humanities as encompassing multidimensional, “adaptable to varying circumstances.” One of the cores of medical humanities is “self-cultivation,” which encourages health-care professionals toward ongoing learning and personal enrichment. This involves building emotional resilience, developing self-awareness, and promoting well-being through reflective practices and leisure activities. Such learning and practices are instrumental in preventing emotional exhaustion and in avoiding the repetition of errors.

Participants identified “cultural competence” as a key component of medical humanities, recognized for its role in enhancing sensitivity to diverse cultural backgrounds

in health-care delivery. Alongside this, an understanding of “medical ethics and law” is considered essential. These elements support critical decision-making in clinical scenarios, ensuring patient welfare, and adhering to ethical principles.

Effective “communication,” both verbal and nonverbal, along with “empathy” and active listening, forms the basis for understanding and meeting patients’ needs. These skills extend beyond clinical knowledge to foster trust and mutual understanding. The diverse contents of medical humanities are ultimately “embodied” in the behaviors, attitudes, and professionalism of medical practitioners. Together, these elements synergistically shape a holistic approach to patient care.

Medical humanities cultivation

Participants described the cultivation of medical humanities as comprising five integral components: personal growth, multimedia, curricula, clinical experiences, and metacognition. “Personal growth,” influenced by life experiences, family background, personal interests, and value systems, is foundational. It shapes professional development and personal attributes, thereby impacting their approach to patient care. “Multimedia” such as books or movies are valued in enriching medical humanities cultivation. Continuing medical humanities education is also recognized as crucial, with a consensus on the need of integrating medical humanities into medical “curricula.” Whether as mandatory or elective courses, this integration aims to provide an interdisciplinary understanding essential for navigating the complexities of human health and illness.

“Clinical experiences,” such as role modeling and interactions with patients and peers, were highlighted as crucial for practical application of medical humanities concepts, particularly in enhancing sensitivity to clinical contexts. The cultivation is brought to completion through “metacognition,” where reflective practices on these experiences aid in developing a deeper understanding. This introspection process is key to transforming past experiences into informed future actions, thus enriching the overall medical humanities cultivation experience.

There are subtle differences among the focus groups. In terms of the contents of medical humanities, the physician group particularly emphasizes “self-cultivation,” while the student group mentions “medical ethics and law,” and the nursing group highlights “cultural competency.” All participants stressed the significance of the clinical relevance of medical humanities and how empathy, effective doctor–patient communication, and relationships manifest in clinical scenarios. Regarding medical humanities cultivation, various educational modalities, including curricula, clinical experiences, and role modeling are highly valued. Both students and physicians particularly emphasize the importance of reflection and metacognition in medical humanities cultivation.

Our study explores the intricacies of medical humanities through heterogeneous focus groups, involving medical students, physicians, and nurses. We discovered a novel, three-layered thematic map of medical humanities, as

illustrated in Figure 1, which appears to be unprecedented in medical humanities literature:

- Outer layer: This layer includes four distinct properties of medical humanities, representing its foundational characteristics and values, and defining the broader scope and impact of medical humanities in health care
- Second layer: Illustrated as arrows in our framework, this layer comprises the five key processes of medical humanities cultivation, signifying the continuous and dynamic nature of acquiring medical humanities knowledge and skills
- Core layer: The innermost core captures the seven central contents of medical humanities, focusing on the essential elements and competencies crucial for health-care professionals. A subtheme of openness and adaptability to varying circumstances further enriches this layer.

In the context of ongoing debates about defining medical humanities [13,19,20], our three-layered conceptualization offers a more structured and comprehensive perspective, moving beyond traditional interpretations. This thematic map could significantly contribute to future curriculum development and research in medical humanities.

DISCUSSION

Three-layered framework of medical humanities

Our thematic map of medical humanities aligns closely with the “Conceptual Model for the Arts, Humanities, and Human Flourishing” [21], emphasizing three frames of engagement: extensional, functional, and normative. Similarly, both frameworks stress the importance of understanding the “what, how, and why” of humanities involvement and its impact on human flourishing. Our study also resonates with established health-care models such as the “Bloomhill Cancer Center Integrated Cancer Care Model” [22] and the “McGill Model of Nursing” [23], highlighting comprehensive patient care approaches. Our map underscores holistic patient care and health promotion, echoing the core principles of these models. By integrating diverse perspectives, our map can enhance established health-care models, fostering a more integrative approach to patient care and emphasizing the humanities’ role in promoting well-being alongside medical interventions.

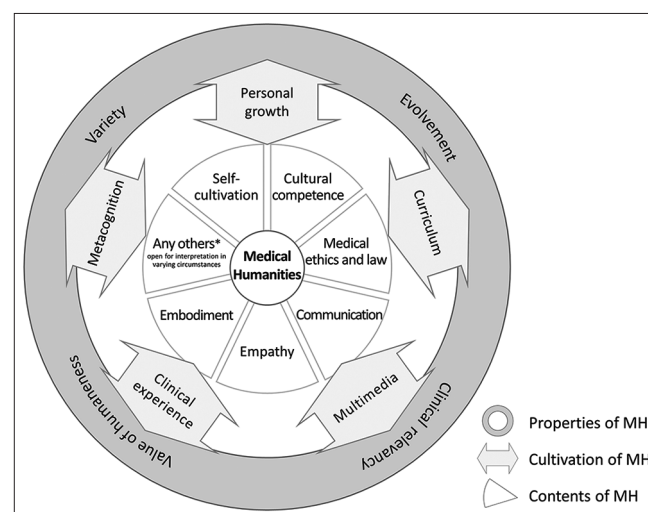


Figure 1: Three-layered thematic map of medical humanities

The cultivation of medical humanities

Engaging in activities such as reading novels, analyzing paintings, and refining storytelling skills cultivates essential qualities for successful doctor–patient interactions, including observation, active listening, interpretation, empathy, and self-reflection. Implementing interdisciplinary teams enhances communication and social skills [24], while exposure to artistic portrayals across cultures significantly boosts cultural awareness [25]. Beyond classrooms, interactive methods such as project-based learning and real-world clinical scenarios, along with humanism ceremonies [26], provide direct patient and family interaction opportunities [27] and develop medical students' humanistic literacy [28].

This study broadens the cultivation modalities and identifies five key cultivations of medical humanities, categorized into external and internal cultivation. External cultivation encompasses a range of experiences, including personal growth, curriculum engagement, multimedia interaction, and clinical experiences. This broad spectrum of cultivation spans from undergraduate education to continuing professional development.

Internal cultivation, in contrast, is characterized by metacognition and aligns with Kolb's experiential learning cycle [29]. This process begins with learners accumulating concrete clinical experiences through patient interactions and role modeling, providing valuable insights into the essence of humanistic health care [26]. Subsequent to the reflection and reconstruction of these experiences, learners progress to internalization and conceptualization. This step is vital for integrating theoretical perceptions with practical insights. Ultimately, the cultivation process culminates in the practical embodiment of the core contents of medical humanities. Through iterative testing and modification, learners refine their understanding and application of medical humanities principles, ensuring that their learning effectively translates into real-world clinical practice. In the ongoing process of internal experiential learning, we hypothesize that the act of reflection is closely linked to the formation of identity. This is supported by key values in humanities, as identified by our participants. Our hypothesis finds support in an observational study where 40% of university students achieved critical levels of reflection on their professional identity. This suggests that reflection in higher education can significantly bolster students' professional identities [30]. Another study posits that critical self-reflection in education and research has the potential to transform uncritically internalized aspects of identity and facilitate social transformation. We propose that through constant reflective cycles, there is a continual reconstruction of both self and professional identity.

Self-cultivation and medical humanities

Our analysis shows that participants highly value self-cultivation, including maintaining a positive outlook and engaging in leisure activities for resilience and burnout prevention. This concept of self-cultivation, which includes self-care, self-adjustment, and personal well-being, can be understood as nurturing health through balanced lifestyle practices, developing resilience and adaptability, and pursuing overall health, happiness, and life satisfaction [31].

Deeply rooted in Eastern culture, the concept of self-cultivation finds resonance in Confucian philosophy, particularly exemplified by Zeng Guofan of the Qing dynasty. Zeng Guofan's philosophy emphasizes personal development, individual well-being, moral integrity, self-improvement, and societal service [32]. Interestingly, this Eastern perspective aligns with the ethos of the Hippocratic Oath, urging medical professionals to prioritize their well-being to deliver optimal care [33]. Our study thus highlights the timeless relevance of self-cultivation, blending Eastern philosophical wisdom with modern health-care practices, and emphasizing the ethical responsibility of health professionals to care for themselves as a foundation for caring for others. This integration points to the need for a holistic approach in health care that values the well-being of both caregivers and patients.

The evolving humanities

The transition from medical humanities to health humanities in recent decades signifies a substantial evolution in health-care education, incorporating elements such as public health, digital health literacy, and environmental considerations. This shift encompasses all health professionals and the broader experiences of illness and disability [34], reminding students that medicine is just one aspect of health and well-being, preparing them for diverse patient expectations and needs [35]. While our research was primarily centered around focus groups involving medical students, nurses, and doctors, it did not comprehensively cover the entire spectrum of health humanities. To overcome this constraint, future research endeavors should aim to include a more diverse and inclusive range of participants. This could involve engaging multidisciplinary students, anthropologists, social scientists, hospice workers, historians, philosophers, creative artists, local residents, as well as occupational and physical therapists [35].

This study has some limitations that warrant consideration. The insights into medical humanities presented herein are derived exclusively from medical students, physicians, and nurses at a single institution in Taiwan, potentially restricting the generalizability of our findings to Western contexts or the broader field of health humanities. In addition, although we concentrated on conceptualizing medical humanities within this specific setting, we may not have delved into the deeper theoretical aspects of medical humanities education, including their impacts on learners and practitioners. Despite these constraints, our proposed three-layered framework and hypothetical model for the cultivation of medical humanities offer valuable insights into medical humanities' multifaceted nature. Future research could incorporate mixed-method studies in diverse geographic and health-care settings to further refine and diversify our understanding of medical humanities on a global scale.

CONCLUSION

Our study introduces a pioneering three-layered framework for medical humanities, encompassing its definition, cultivation, and embodiment through heterogeneous focus groups. This framework illustrates the field's dynamic and intricate nature in both educational and practical contexts. A notable contribution is the integration of Eastern philosophical

principles, particularly self-cultivation, underscoring the significance of health-care professionals' personal well-being. By harmonizing Eastern philosophies with the predominantly Western-centric perspectives in medical humanities, our study enriches the field, advocating for a balanced, humane, and holistic approach to health-care education and practice.

Data availability statement

Data sharing is not applicable to this article as no datasets were generated or analyzed during the current study as the most appropriate statement for our article and ensure that it accurately reflects the availability of our research data.

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Conflicts of interest

Dr. Shao-Yin Chu, an editorial board member at *Tzu Chi Medical Journal*, had no role in the peer review process of or decision to publish this article. The other authors declared no conflicts of interest in writing this paper.

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Appendix 1: Guiding questions

Number	Questions
1	Please introduce yourself and describe your understanding and perspective on medical humanities
2	Do you believe it's possible to define medical humanities distinctly? If so, how do you define medical humanities? How would you characterize medical humanities? Are there particular elements or themes that you feel are essential to this field?
3	Medical humanities often integrate social sciences, humanities, and arts. What are your thoughts on this interdisciplinary approach?
4	How did you approach the cultivation of medical humanities? Can you share any effective methods or strategies?
5	For medical students: What do you learn about medical humanities, and do you think it can be effectively taught? For physicians and nurses: Could you share your experiences in teaching medical humanities, and do you believe it's a teachable subject?
6	For medical students: What challenges have you faced in cultivating or learning about medical humanities? For physicians and nurses: What obstacles have you encountered while teaching medical humanities?
7	What are your views on the current policy that mandates medical humanities as a compulsory subject for students?
8	For medical students: How have you applied your knowledge of medical humanities in daily life or academic studies, and how do you see its future role in clinical practice? For physicians and nurses: Can you share how you've integrated medical humanities into your clinical practice?
9	As we wrap up, do you have any additional insights or comments on the subject of medical humanities that you would like to share?

Appendix 2: Representative quotes for main themes and subthemes

Main themes	Subthemes	Quotations (participant label)
Medical humanities properties	Variety	... humanistic cultivation, it's all about diving into disciplines like ethics, philosophy, history, or literature and art... It's not until you really get into them that you begin to cultivate what we call "medical humanity." (physician - 1)
		No single element is considered special or the most important; nearly every aspect holds significance. It can be a bit challenging to encompass all these aspects, as it puts medical humanity into an overly extensive scope (SMS-4)
		People often interpret words in their own way. Medical humanities allow us to expand our perspectives across disciplines and cultures. (physician - 10)
	Evolution	Medical humanity is continually brought into discussions. Challenges arise, sparking discussions that lead to the deconstruction and reconstruction of medical humanities. It undergoes this repetitive cycle of examination and refinement. (physician - 9)
		It's not just about the interdisciplinary fields (that MH encompasses); it's also about how you put them into action afterward. That depends on the circumstances at that time, the people around you, and the things you come across. (nurse - 7)
	Relevancy	You can't really remove medicine from MH; otherwise, how can it still be called medical humanities? Without it, they would become more of an abstract concept. (FMS-1)
		...medical humanities need to be relevant to the clinical setting and applicable in the care of patients. The lack of medical humanities may result in overlooking crucial aspects, such as cross-cultural issues and other considerations mentioned earlier. (nurse - 2)
		I agree with (one participant) – implementing medical humanities into clinical practice not only gives us as healthcare providers a sense of inspiration and warmth but also allows patients and their families to feel that we genuinely care. (physician - 8)
		Exploring a patient's story goes beyond just understanding the pathophysiology; it (MH) gives us insight into their life background. It's from this perspective that we truly get to know the person. That, to me, is the essence of medical humanities - delving into the narrative, understanding the person beyond the medical details... (FMS-2)
		Understanding our primary care (patients and families) by listening to their individual stories and appreciating their cultural backgrounds enables us to provide appropriate and personalized medical care. (nurse - 1)
Medical humanities contents	Self-cultivation	I think it's important to get to know yourself because when you don't know yourself well, you may not be aware of your values and beliefs... Once you have a good understanding of yourself, you can effectively showcase those internalized humanities. (SMS-1)
		(What else do you think medical humanities encompass?) I'd like to share a line from The Oath of Hippocrates: "I will attend to my own health, well-being, and abilities to provide care of the highest standard." (physician - 5)
		Positive thinking and resilience play an important role in the MH...Ever wonder why so many physicians enjoy cooking? Because it indeed serves as a stress-relieving activity... (physician - 4) ...and lots of healthcare professionals are into music and drawing for the same reason. It's all about keeping that mental health on point. (physician - 5)
	Cultural competence	Keeping oneself warm and compassionate, continually adjusting oneself throughout life to provide the best for others and their families—I believe that's what medical humanities is all about. (physician - 11)
		...equally crucial is the skill of cultural awareness, just like (one participant) mentioned earlier – being sensitive... What's their cultural background and context? Understanding these aspects is crucial to conveying warmth in the interaction between people. (nurse - 3)
	Medical ethics and laws	Talking about humanities in medicine can be pretty abstract and hard to measure. That's where the Medical Care Act comes in, setting the bottom line of ethics, like making sure there's informed consent. (FMS-5)
		We really keep an eye on medical ethics in specific clinical and research situations. In clinical trials, the "do no harm" principle is a big deal... When it comes to topics like the scarcity of healthcare resources, organ transplants, and determining the priority for patients, those things kind of connect with medical humanities in some way. (FMS-1)
	Communication	Poor communication can lead to the delivery of one-sided advice to patients and the neglect of diverse perspectives. (physician - 8)
		As patients hang out with us more, they usually start feeling more chill and open up about what's really on their minds. ...as we acknowledge and respect their thoughts, it just builds a way for a better bond between patients and the healthcare team. (nurse - 5)
	Empathy	"Before becoming a doctor, become a person." By doing so, you can understand and empathize with others, and then become a good doctor. (SMS-1)
	Embodiment	Humanities require a lot of practical experience and real connections with people... It's about empathy, active listening, and compassionate care, ... which may require continuous learning from role models or adjusting based on personal experiences. (nurse - 3)
		It (MH) is really integrated into daily work. You don't need to consciously say, "Now, I'm teaching you about humanities, follow me and learn." That would be quite inappropriate, right? So, I think the answer lies in our daily work. We don't need to consciously do it; we just need to lead by example. (nurse - 5)

Contd...

Appendix 2: Contd...

Main themes	Subthemes	Quotations (participant label)
Medical humanities cultivation	Adaptable to varying circumstances	I want to emphasize the importance of “hands-on experience.” ...there’s a big difference between knowing and doing. Even after we’ve taken action, there’s still a need for long-term improvement in the practical aspect. It takes quite a while to gather enough hands-on experience for better patient care. (FMS-2)
		To sum it up, I see medical humanities as the integration of medicine and humanities. I believe it has an extensive coverage of aspects. (SMS-6)
		Defining medical humanities can be a bit tricky. Whether it’s the Eastern or Western take on humanities, the core idea revolves around putting “humans” front and center. When applying medical humanities, it’s crucial to embrace interdisciplinary thinking. Although Western medicine often takes the lead in interpreting medical humanities, it’s important to note that there are various perspectives to explore. (physician - 9)
	Personal growth	Everyone’s upbringing, family values, life experiences, and journey are unique, leading to distinct interpretations of medical humanities for each individual. (FMS-1)
		I have been greatly influenced by my family’s education in cultivating my understanding of medical humanities. Since childhood, my parents have taught me to be considerate, which has had an impact on my personality as a doctor. (physician - 1)
	Multimedia	I’ve picked up on medical humanities through my religion. Some religious principles and moral values have shaped how I approach my patients. (SMS-4)
		The first time I encountered the aspect of medical humanities, I found that reading books was quite crucial for me... reading books is important to me, and you can truly pick things that interest you to read. Also, many classmates explore medical-related TV series or movies. So, besides the classroom, I think literature and movies, as mentioned earlier, are the most accessible avenues for us. (FMS-1)
	Curriculum	Do we necessarily need to have a dedicated MH course? How about making it a bit more relaxed? Watching a movie, having a cup of coffee for two hours... one may recall the movie he watched one day, relating it to the clinical scenario he encountered (physician - 1)
		I think the curriculum should be continuous, providing consistent training from the first year to graduation... after graduation, they’ll be dealing with patients daily, engaging in communication and interaction. And if they start with a solid experience like this, it’s gonna make their patient care a lot smoother. (nurse - 3)
		...even in clinical settings, including post-graduate students or residents, you always need a bit of time to refresh medical humanities, maybe something like 2 to 3 percent. (physician - 9)
-	Clinical experience	Teaming getting students from medicine, nursing, pharmacy, and physical therapy together (in an MH curriculum) ... Place them into scenarios, maybe a tricky medical-patient communication challenge or some touching scenes. Since everyone comes from a different background, those interactions can be interesting. (physician-1)
		Everyone’s got their own way of learning, no need to be so strict about it. So, my take is, to make MH curricula a mandatory course, but, keep it partially optional for those who need a bit more flexibility. (FMS-2)
		Personally, I prefer direct interaction with people, like doing home visits or getting involved in activities with the “medical serve club.” ...immersing myself in the environment where the service recipients are, understanding the vibe and culture of their village, community, and special conditions like hygiene. (FMS-6)
		I believe the most effective way to understand medical humanities is by connecting with patients and experiencing life as a family member, especially when a loved one is diagnosed with a serious illness or passes away. (physician - 1)
		...in the hospital, everyone naturally notices different things and observes interactions. One may consider a certain doctor as their role model. In medical education, they emphasize role modeling. So, when it comes to teaching medical humanities, sure, you can toss in theory and examples, just giving you the “know-how.” After that comes the “show-how,” letting them see how it’s done in real life. (physician - 1)
		Clinical experience is crucial. Before encountering such situations, one may not understand how medical humanities can be applied... I think it’s important to use case-based learning to illustrate these concepts. Learning through examples is quite valuable in medical humanities. (nurse - 4)
	Metacognition	Reflection isn’t just about looking inward. When facing a certain objective fact, sometimes, you need to think about its deeper meaning and be aware that there may be other influencing factors... When it comes to caring for a patient, we’ve got to tackle those underlying factors rather than just dealing with surface appearances. (FMS-4)
		The “5R-Reflection” is a crucial component of learning in medical humanities. It transforms a case from documenting a disease to portraying a “person,” fostering the growth of humane care. ...cultivating these fundamental skills, one can actively engage in interpersonal interactions and practice attentive listening. This not only enhances professional competence but also nurtures the ability to facilitate “healing.” (physician - 10)

This appendix presents selected quotations that exemplify the three main themes identified in our study: “Medical Humanities Properties,” “Medical Humanities Contents,” and “Medical Humanities Cultivation,” along with their respective subthemes. Each quote has been translated from Mandarin to English by a professional linguist for accuracy. The Representative Quotes are systematically organized in a table format to enhance clarity, with labels denoting the focus group affiliation, and participant identification labels for reference. FMS: 4th-year medical student, SMS: 6th-year medical student, MH: medical humanities