Ind. J. Pharm. Edu. Res., 2027; 1-8.
https://www.ijper.org

Original Article

An Early Clinical Exposure Program in Multidisciplinary Breast Cancer Care: A Mixed-Methods Evaluation of Medical Humanities Education

Mingyan Gong, Fang Zhao, Jianbin Bi, Fei Wu, Cong Feng, Huizi Wu, Zitong Zhao, Shuqun Zhang*, Chong Du*

The Comprehensive Breast Care Center, The Second Affiliated Hospital of Xi'an Jiaotong University, Xi'an, CHINA.

ABSTRACT

Background: The integration of medical humanities education with clinical practice represents a critical direction in medical education reform under the "New Medical Sciences" framework. Nonetheless, a gap persists between classroom-based humanities instruction and authentic clinical experience. This study developed and evaluated a brief early clinical exposure program. **Materials and Methods:** The program was implemented at the [REDACTED], integrating breast surgery, psychology, traditional Chinese medicine, and medical social worker. A four-stage instructional model was designed, comprising conceptual introduction, psychosomatic care, patient experience, and reflective consolidation. A mixed-methods design was applied. Quantitative outcomes were evaluated using pre- and post-intervention self-assessment scales of humanistic competence, analysed with paired t-tests. Qualitative data derived from reflective writings and semi-structured interviews were analysed through thematic analysis. **Results:** A total of 40 students participated. Quantitative analysis showed statistically significant pre-to-post improvements in humanistic awareness, communication skills, and professional identity (all $p<0.05$). Qualitative analysis identified three overarching themes: reconstruction of disease perception, transformation of empathy from cognition to action, and recognition of multidisciplinary collaboration as fundamental to patient care. **Conclusion:** This brief early clinical exposure program in a multidisciplinary breast cancer setting was associated with positive changes in first-year medical students' self-reported humanistic awareness, communication skills, and professional identity. Qualitative findings provided complementary insights into how such experiences may shape students' perceptions of patient-centred care. These preliminary findings suggest that integrating early clinical contact with humanities instruction is feasible and warrants further evaluation with controlled designs and objective outcome measures.

Keywords: Comprehensive management of breast cancer, Early clinical practice, Medical humanities education; Multidisciplinary care, Patient-centred care.

Correspondence:
Dr. Shuqun Zhang
The Comprehensive Breast Care Center, The Second Affiliated Hospital of Xi'an Jiaotong University, Xi'an, CHINA.
Chong Du
The Comprehensive Breast Care Center, The Second Affiliated Hospital of Xi'an Jiaotong University, Xi'an, CHINA.
Email: duchong@xjtu.edu.cn

Received: 08-05-2026;
Revised: 23-07-2026;
Accepted: 12-09-2026.

www.ijper.org

INTRODUCTION

Contemporary medical education is undergoing profound reform. Globally, medical educators have called for integrating humanities into clinical training to foster empathy and professional identity formation.[1,2] The widespread adoption of the biopsychosocial model necessitates that medical students not only acquire advanced clinical skills but also develop strong humanistic competencies. However, surveys indicate that humanities and social science courses constitute only approximately 8% of the total curriculum in Chinese medical schools, markedly lower than the 20%-25% reported in European and American institutions. Moreover, this proportion declines further to about 5% during the clinical training phase.[3] Such structural limitations and practical constraints have contributed to inadequate humanistic literacy among medical students. The majority of students rate their humanistic literacy as "average and in need of improvement" (with rates as high as 90% among first-year master's students), and most report only a "basic" understanding of medical humanities concepts (e.g., 73.40% among second-year undergraduates).[4] More notably, 74.80% of medical students have experienced patient refusal during clinical procedures, and among these, 49.67% attribute the primary cause to strained doctor-patient relationships.[5,6]

In the field of breast cancer diagnosis and treatment, the need for humanistic care is particularly pressing. Patients face not only physiological challenges such as alterations in

DOI: 10.5530/ijper.20270112

Copyright Information :
Copyright Author (s) 2027 Distributed under Creative Commons CC-BY 4.0

Publishing Partner : Manuscript Technomedia. [www.mstechnomedia.com]

body image and treatment-related adverse effects, but also multiple psychological burdens, including survival anxiety and the reconstruction of social identity. However, within traditional medical education, humanities courses often remain confined to theoretical instruction, resulting in a significant disconnect from clinical practice. As noted by several scholars, such "armchair" humanities education is largely restricted to the early stages of training; lacking direct engagement with real patients, students find it difficult to internalise the fundamental principle of patient-centred care.[7]

In recent years, the emergence of narrative medicine has introduced new perspectives and methodologies into medical humanities education. Through close reading and reflective writing, medical students can develop a deeper understanding of patients' lived experiences with illness.[8] The "Listening to the Mind, Writing with Empathy" program, implemented at the Seventh Affiliated Hospital of Sun Yat-sen University, has successfully integrated narrative medicine principles into clinical teaching and achieved notable outcomes.[9] Nevertheless, how to systematically incorporate these approaches into early-stage medical education, particularly in fostering students' integrative humanistic thinking within a multidisciplinary collaborative context, remains an urgent issue to be addressed.

Recent studies from East Asia have demonstrated that narrative-based early clinical exposure courses can significantly enhance medical students' empathy, narrative competence, and professional identity formation.[10] Meanwhile, a comparative analysis of medical humanities curricula across six countries revealed that while developed nations (the U.S., U.K., and Japan) have achieved deep integration of humanities with clinical training, developing countries including China, India, and Brazil share common challenges in curriculum localisation and teaching quality.[11] These cross-national insights underscore the importance of culturally adapted, clinically grounded humanities programs and support the rationale for implementing early clinical exposure initiatives in the Chinese medical education context.

This study leverages the multidisciplinary diagnostic and therapeutic platform of the Comprehensive Breast Care Center at the [REDACTED] to design an innovative early-stage social practice program for first-year medical students. Using the psychosomatic rehabilitation of breast cancer patients as an entry point, the program explores a multidisciplinary and collaborative model for narrative medicine education. This mixed-methods exploratory study examined whether participation in this brief early clinical exposure program was associated with positive changes in medical students' self-reported humanistic care competence, communication skills, and sense of professional identity, while also exploring students' subjective experiences through qualitative analysis.

Design of the Practice Program

Teaching Objectives and Core Issues

This program aligns closely with the "Three-Early" educational framework and, following Bloom's taxonomy of learning objectives, establishes a three-tiered, progressive set of learning goals. At the cognitive level, students are expected to understand the patient-centred approach within the multidisciplinary model of breast cancer management and to comprehend the core components of psychosomatic rehabilitation, including physical recovery, psychological support, and social support systems. At the skills level, students are required to develop foundational competencies in physician-patient empathy, such as nonjudgmental listening, safeguarding patient privacy, and awareness of multidisciplinary collaboration. At the value level, the program seeks to cultivate professional ethics characterised by reverence for life and respect for patient autonomy, thereby reinforcing students' sense of vocation based on the principle that healthcare embodies responsibility for both health and life.

The program is designed to address three major challenges in medical humanities education. First, it confronts the issue of delayed humanities training by moving beyond the traditional linear model in which professional knowledge precedes humanistic development, instead embedding the "gene" of humanistic care at the inception of medical education. Second, it responds to the deficiency of patient experience by enabling guided interactions with real patients in a safe setting. This approach mitigates students' fear of cancer and promotes a more scientific and rational understanding of disease. Third, it addresses cognitive blind spots related to multidisciplinary care by vividly illustrating the collaborative roles of psychology, medical social work, and traditional Chinese medicine in cancer rehabilitation, thereby helping students concretely comprehend the practical application of the biopsychosocial model of medicine.

Multidisciplinary Team and Instructional Design

The program incorporates four essential professional roles from the Breast Center to form a comprehensive, multidimensional teaching team. Breast surgeons are responsible for elucidating the evidence-based decision-making processes involved in breast cancer surgery, chemotherapy, and endocrine therapy, with particular emphasis on integrating patient values into treatment decisions. Psychotherapists analyse the psychological mechanisms underlying patients' anxiety and depression and demonstrate cognitive-behavioural intervention strategies, including the application of psychological assessment tools. Practitioners of traditional Chinese medicine present methods for alleviating treatment-related adverse effects through Chinese medical therapies and introduce the concept of emotional regulation in traditional practice, highlighting culturally

www.ijper.org

Table 1: Four-Stage Practice Teaching Content and Process Design.

Stage	Duration	Theme	Content Format	Person in Charge
1. Conceptual Introduction	45 min	Multidisciplinary Care and Whole-Process Management	Centre overview, animated demonstration of diagnostic and treatment processes, patient-centred case discussions	Director of the Breast Center
2. Psychosomatic Care	75 min	2.1 Psychological Intervention Module	Patient emotion mapping, mindfulness breathing exercises	Psychotherapist
		2.2 Traditional Chinese Medicine Integration Module	Auricular acupressure practice, dietary therapy for emotional regulation	Traditional Chinese medicine Practitioner
		2.3 Social Support Module	Doctor-patient communication simulations, case analysis of resource linkage	Medical Social Worker
3. Patient Experience	45 min	Narrative Medicine Practice	Story sharing by patients in recovery, co-reading of treatment diaries	Associate Director (Moderator)
4. Reflection and Consolidation	15 min	Internalisation of Insights	Drawing a psychosomatic rehabilitation tree, writing reflective cards	All instructors

www.ijper.org

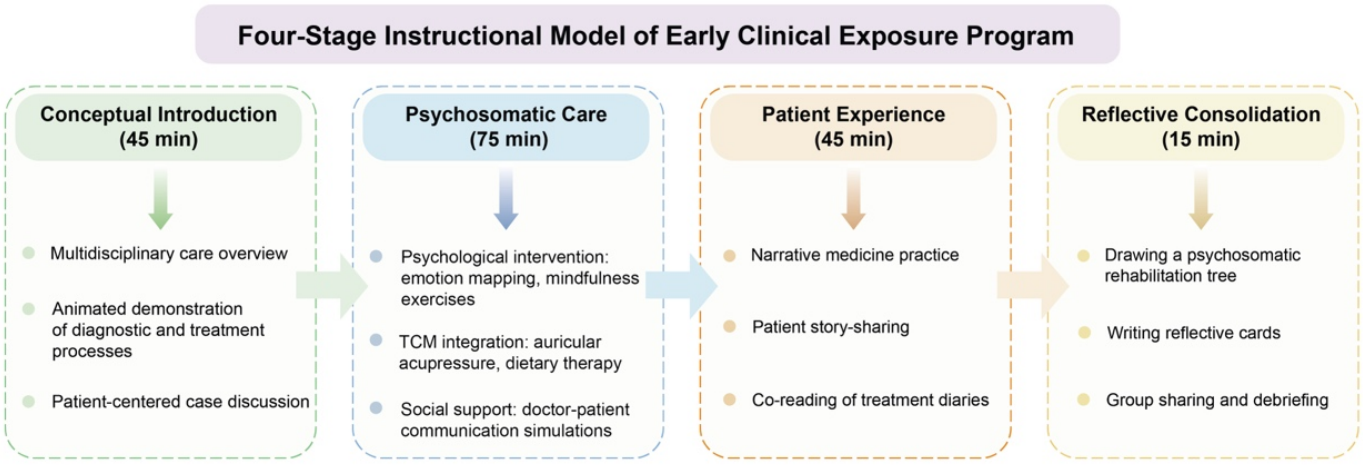


Figure 1: Four-Stage Instructional Model of Early Clinical Exposure Program.

embedded resources for humanistic care. Medical social workers demonstrate approaches to connecting patients with social resources and resolving doctor-patient communication challenges while emphasising the critical role of social support systems inpatient rehabilitation (Table 1). The overall structure and progression of the four-stage program is illustrated in Figure 1.

Teaching Innovations

This program exhibits pedagogical innovation in three major dimensions. First, it emphasises immersive engagement in authentic clinical environments. Students participate in on-site observations of scheduled multidisciplinary case discussions at the Breast Center, allowing them to directly experience the efficiency and complexity of collaborative clinical decision-making. For instance, students observed how a psychotherapist's evaluation of preoperative anxiety in a patient scheduled for

breast-conserving surgery influenced adjustments to the final surgical plan.

Second, the program employs narrative medicine as a pedagogical approach. Utilising its core methods, students are guided to record patient narratives and create reflective cards. Structured prompts are provided to facilitate reflection, such as: "What moment today impacted you the most?" and "How has this experience changed your perception of a physician's role?" One student reflected: "Ms. Li said that losing her breast made her feel like a shattered vase, but the patient support group organised by the medical social worker helped her realise that cracks allow light to pass through. This helped me begin to understand both the limitations and transcendence of medicine."

Third, the program integrates localised humanistic resources. It innovatively introduces elements of emotional regulation from traditional Chinese medicine, including auricular acupressure experiences and tasting Ganmai Dazao decoction, to demonstrate the distinctive value of traditional cultural resources in modern medical humanities education. This approach fosters students' understanding of medical humanities through the lens of cultural confidence.

Research Methods

Participants

A total of 40 first-year clinical medicine students who participated in the 2024 and 2025 short semester program were included in this study. The program was a mandatory component of the short-term curriculum for all first-year students in the cohort; no academic credit or additional incentives were offered for participation. Students were randomly assigned to different clinical departments for their rotation, and the 40 students assigned to the Comprehensive Breast Care Center constituted the sample for this study; students had no choice in their departmental assignment, which mitigated self-selection bias at the student level. Among the participants, 17 were male (42.5%) and 23 were female (57.5%), with a mean age of 18.9±0.7 years. All participants' personal information was anonymized, and informed consent was obtained from all participants.

Assessment Tools

An explanatory sequential mixed-methods design was employed, integrating quantitative data and qualitative findings for mutual validation. Quantitative instruments included a self-assessment scale of humanistic competence and patient participation evaluations. The humanistic competence scale comprised three domains: humanistic awareness (5 items), communication skills (4 items), and professional identity (3 items). Pilot testing demonstrated good internal consistency, with a Cronbach's α coefficient of 0.87. The 12-item scale was developed based on a literature review and expert panel input from three medical education specialists. The scale items mapped to the three domains following Bloom's taxonomy framework. Patient participation was evaluated using a five-point Likert scale to assess students' behavioural performance in areas such as respect for privacy and expression of empathy. A limitation of the self-report format is its vulnerability to social desirability bias, particularly given that post-tests were administered immediately after the emotionally salient program. To partially address this, we also collected patient evaluations as behavioural-anchored measures, though these too were collected by program-affiliated staff (see Section 2.3).

Qualitative tools included reflective cards and semi-structured interviews. Each student completed a structured reflection of 200-300 words, focusing on the most impactful experiences and the reconstruction of humanistic concepts. Additionally, 20 students were randomly selected for in-depth interviews, each lasting approximately 30 min, to explore how multidisciplinary care experiences influence the development of professional identity.

Implementation Procedure

The implementation consisted of three phases: preparation, instructional delivery, and data collection.

In the preparation phase, two breast cancer survivors who had been in remission for more than one year and demonstrated stable psychological status were selected by medical social workers. All participants' personal information was anonymized, and informed consent was obtained from all participants. They received training in narrative-sharing techniques to ensure both patient safety and a positive learning experience. Students signed confidentiality agreements, systematically studied ethical guidelines for communication with breast cancer patients, and underwent basic communication skills training. Consultation rooms were equipped with privacy screens, traditional Chinese medicine materials were prepared for experiential activities, and a safe and comfortable interactive environment was established.

During the instructional phase, the four-stage teaching design was strictly implemented, with 5-10 min reserved for Q&A in each stage. An innovative "emotion blind box" activity was incorporated into the psychological module, using anonymous prompts, such as "How should one respond to anger from terminally ill patients?", to stimulate in-depth discussion and reduce students' hesitation in expressing emotions.

In the data collection phase, the pre-test questionnaire was administered and collected on-site before the first session, while the post-test was conducted immediately after course completion. Reflective cards were submitted online within 24 h to capture students' immediate experiences. Patient evaluations were collected individually by medical social workers after the activity.

www.ijper.org

Table 2: Comparison of Pre- and Post-Test Scores on the Medical Students' Humanistic Competence Self-Assessment Scale (*n*=40).

Dimension	Number of Items	Pre-test Score	Post-test Score	*p* value	*Cohen's d*
Humanistic Awareness	5	4.13±0.46	4.63±0.48	< 0.001	1.09
Communication Skills	4	3.80±0.52	4.25±0.44	< 0.001	0.87
Professional Identity	3	4.05±0.39	4.58±0.50	< 0.001	1.36

Statistical Analysis

Quantitative data were analysed using Statistical Package for the Social Sciences (SPSS) version 25.0. Normality of the difference scores for each dimension was assessed using the Shapiro-Wilk test. All difference scores met the normality assumption (p>0.05), supporting the use of paired t-tests. Effect sizes (Cohen's d) were calculated for each dimension to complement p-values and indicate the magnitude of observed changes. Paired *t*-tests were used to compare pre- and post-intervention scores across the dimensions of humanistic competence, with patient evaluation results expressed as mean±standard deviation. Because only three pre-specified dimensions were analysed, no adjustment for multiple comparisons was applied; however, all p-values remained below 0.001, which would survive Bonferroni correction (α=0.017) if applied. Qualitative data were independently coded and analysed by three researchers using the thematic analysis framework proposed by Braun and Clarke. Coding discrepancies were resolved through consensus discussion; inter-rater agreement was calculated (Cohen's κ=0.82, indicating strong agreement). Multiple rounds of discussion and refinement led to the establishment of a consensus-based thematic framework.

RESULTS

Quantitative Data Analysis

Paired analysis of the self-assessment scales from 40 students showed that post-test scores were higher than pre-test scores across all dimensions, with paired t-tests showing statistically significant differences (all p<0.001). Detailed results are presented in Table 2. All 40 enrolled students completed both pre- and post-tests and submitted reflective cards; no attrition occurred (Figure 2).

In terms of patient evaluations, 92.5% of students (37/40) received scores of 4 or higher. Representative comments included: "This student held my hand throughout as I shared my experience of chemotherapy-induced hair loss; I could genuinely feel his sincerity." Another patient remarked, They asked me how I would like doctors to help me, this question made me feel truly respected.

Qualitative Analysis Results

A systematic analysis of 40 reflective cards and 20 interview transcripts yielded three core themes.

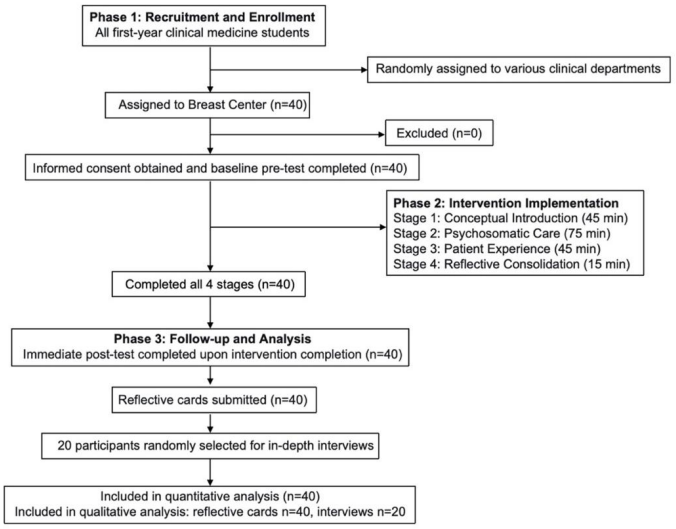


Figure 2: Participant flow diagram.

Theme 1

Reconstruction of Disease Perception (from a Terminal Illness to a Narrative of Living with Cancer). A total of 82.5% of participants (33/40) reported that the program experience transformed their stereotypical perceptions of cancer. One student wrote in reflection: "I used to think cancer was synonymous with despair, but when I saw photos of Ms. Li returning to the stage five years after surgery, I began to understand the resilience of life embodied in living with cancer." Another student shared: "The traditional Chinese medicine practitioner stated that 'strengthening the body's resistance and eliminating pathogenic factors' is not only a therapeutic principle but also a philosophy of life. This prompted me to reflect on the true essence of medicine."

Theme 2

Activation of Empathic Ability (from Knowing to Feeling). A total of 77.5% of students (31/40) reported emotional resonance during their interactions with patients. One student described: "When Ms. Chen cried and said she feared her husband would reject her because of her scars, I truly felt for the first time the psychological impact of bodily disfigurement. At that moment, I realised that in my future practice, I should not only focus on the complete removal of the tumour but also recognise the whole person behind the lesion." Another student reflected: "The psychotherapist taught patients to quantify anxiety using an 'emotion thermometer.' This method helped me realise that

www.ijper.org

emotions need to be concretized and operationalized, rather than discussed only in abstract terms."

Theme 3

Recognition of the Value of Team Collaboration (from Individual Effort to an Orchestral Paradigm Shift in Understanding). A total of 87.5% of students (35/40) emphasised in their reflections a deepened understanding of the necessity of multidisciplinary collaboration. One student offered a vivid analogy: "Surgeons address the lesion, psychotherapists mend psychological trauma, and social workers rebuild social connections. They are like different sections of an orchestra jointly performing the symphony of patient recovery." Another student gained insight from the patient's perspective, noting: "When a patient said that traditional Chinese medicine dietary therapy helped her cope with chemotherapy-induced nausea, I suddenly understood the clinical value of a multidisciplinary support network, beyond its theoretical significance."

DISCUSSION

Interpretive Analysis of Observed Changes and Program Mechanisms

This study innovatively integrates the clinical context of multidisciplinary diagnosis and treatment with narrative medicine methodologies, providing a replicable and scalable model for early-stage medical humanities education. The observed changes may be interpreted through three interconnected dimensions.

First, the liminal experiential value of early clinical exposure. First-year medical students demonstrated notable improvement in humanistic awareness and communication skills through a condensed four-session program, providing strong support for the educational principle of "early clinical exposure, repeated clinical exposure, and continuous clinical engagement".[5] Compared with traditional classroom instruction, the emotional resonance evoked by authentic patient narratives possesses a distinct liminal experiential quality. When students directly listened to patients' tearful descriptions of bodily changes, medical humanities education transitioned from cognitive comprehension to emotional engagement, may help bridge the gap between cognition and affect, as suggested by students' reflective accounts. As one student remarked in an interview, "Empathy described in textbooks is one thing, but when a patient holds my hand and cries, the experience is completely different."

Second, a potential hidden curriculum effect of multidisciplinary collaboration may be inferred from students' observations. The joint teaching involving breast surgery, psychiatry, medical social work, and traditional Chinese medicine exemplifies the practical implementation of the biopsychosocial model. From the perspective of social learning theory, students learn through observation such as observing how psychotherapists employ an "emotion thermometer" to help patients quantify anxiety, or how medical social workers facilitate the rebuilding of patients' social networks through support groups. These experiences enable students to gradually and implicitly appreciate the significance of psychosocial support systems beyond biomedical interventions. This pattern aligns with the core argument that medicine necessitates humanistic empowerment.[2]

Third, the educational value of localised humanistic resources. The incorporation of the emotional regulation module derived from traditional Chinese medicine not only enriched the pedagogical approach but also provided a distinctive educational resource. Through experiential activities such as auricular acupressure for anxiety reduction, students reported recognising the unique contribution of traditional culture to modern medical practice. This initiative corresponds with ongoing efforts to integrate Confucian principles into medical ethics education,[12] collectively underscoring the developmental potential of indigenous cultural resources within medical humanities education.

Practical Challenges and Optimisation Pathways

During implementation, several challenges merit attention. The first involves ethical considerations in patient selection. Patients in recovery who are appropriate for teaching must possess adequate communication skills and psychological stability, criteria that present practical difficulties in clinical settings. To address this issue, we plan to establish long-term collaboration with local cancer patient associations to systematically develop a volunteer registry. Furthermore, a "buddy program" will be introduced in which previously participating students assist in training new patient volunteers, thereby fostering a sustainable support network.

The second challenge concerns the structural constraints of limited class hours. The condensed four-session design is insufficient to fully capture the multidisciplinary diagnostic and treatment process, resulting in a preliminary understanding of interdisciplinary collaboration. Optimisation strategies include the development of online learning modules, such as virtual reality simulations of multidisciplinary case discussions, to introduce theoretical content in advance. Additionally, the program could be extended into a series of workshops distributed throughout the semester to promote deeper and more sustained learning.[13]

Third, there remains room for improvement in the evaluation system. As noted earlier (Section 2.2), the current self-reported scales measure perceived rather than observed competence, and may not fully capture the deeper dimensions of humanistic competence, particularly long-term behavioural transformation. In the next phase, we plan to introduce an Objective Structured Clinical Examination (OSCE) with standardised patient stations

www.ijper.org

to enable more accurate assessment of students' actual levels of humanistic competence through direct behavioural observation.

Several limitations should be considered when interpreting these findings. First, the single-arm pre-post design precludes causal attribution; observed changes cannot be definitively attributed to the intervention, as maturation, concurrent coursework, and Hawthorne effects cannot be ruled out. Second, the sample was small (n=40), drawn from a single institution and a single clinical specialty, which limits generalizability. Third, the primary outcome measure relied on self-reported perceptions rather than objective behavioural assessment, which is vulnerable to social desirability bias. Fourth, the research team was involved in both program implementation and evaluation, which may have introduced confirmation bias in qualitative thematic interpretation, although we attempted to mitigate this through reflexive journals and consensus coding. Fifth, patient volunteers were selected based on stable psychological status and remission, which provided a safe learning environment but may have limited students' exposure to the full spectrum of patient experiences. Future studies should employ controlled designs, objective competency measures (e.g., OSCE), and multi-site sampling to validate and extend these preliminary observations.

Scaling Potential and Practical Implications

This model can be further disseminated and refined in three primary directions. Regarding curricular integration, it can be incorporated into practical components of courses such as Introduction to Medicine and Medical Ethics, serving as a compulsory element of medical students' initial clinical exposure and achieving the seamless integration of humanistic education with professional training.

For interprofessional education expansion, the program could in the future include students from nursing, psychology, and social work to participate collaboratively, thereby establishing an interprofessional education platform and fostering an early cognitive foundation for teamwork within authentic clinical settings.

Concerning community healthcare extension, students may accompany medical social workers on home visits to discharged patients to gain insight into the humanistic aspects of continuity of care in community contexts, including applications for financial assistance and family relationship adjustment, thereby extending the temporal and spatial dimensions of medical humanities education.

CONCLUSION

This study provides preliminary evidence that a brief early clinical exposure program grounded in multidisciplinary breast cancer care may be associated with positive changes in first-year medical students' self-reported humanistic awareness, communication skills, and professional identity. The four-stage instructional model-conceptual introduction, psychosomatic care, patient experience, and reflective consolidation-offers a structured approach for integrating early clinical contact with humanities instruction. Multidisciplinary collaborative teaching helped students appreciate team-based care; narrative medicine methods facilitated empathic reflection; and traditional Chinese medicine modules highlighted culturally specific resources for humanistic education. These findings are exploratory and should be interpreted in light of the study's limitations, including the single-arm design, small sample size, and reliance on self-report measures. Future research should employ controlled designs, objective competency assessments (e.g., OSCE), and multi-site sampling to establish the robustness and generalizability of these observations. Despite these limitations, this program offers a feasible model for responding to the "New Medical Sciences" call for cultivating integrative medical professionals.

ACKNOWLEDGEMENT

The authors express their sincere gratitude to all the medical students who participated in this study for their enthusiasm and commitment. We are deeply thankful to the breast cancer survivors who generously shared their personal stories and experiences, without whom this educational program would not have been possible. Our appreciation also extends to the multidisciplinary team at the [REDACTED]-including breast surgeons, psychotherapists, traditional Chinese medicine practitioners, and medical social workers-for their invaluable contributions to the instructional design and implementation. Finally, we acknowledge the administrative staff for their logistical support throughout the program. All individuals mentioned have been informed of their inclusion and have given their consent.

ABBREVIATIONS

OSCE: Objective Structured Clinical Examination; **SPSS:** Statistical Package for the Social Sciences; **CRediT:** Contributor Roles Taxonomy.

CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

FUNDING

This work was funded in part by the following: Medical "basic - clinical" integration and innovation project of [REDACTED] (YXJLRH2022093 to C.D.)

www.ijper.org

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

This study was conducted in accordance with the Declaration of Helsinki and was reviewed and approved by the Ethics Committee of [REDACTED] after review. Given the minimal-risk nature of the study, the committee approved the use of verbal informed consent in lieu of written consent. The teaching program involved in-person clinical interactions (case observations, experiential activities, and direct patient-student contact), which were approved as routine educational practice. Data were collected via online surveys, with an information sheet provided at the beginning of each questionnaire; completion of the survey served as implied consent for data collection, and all identifiers were anonymized prior to analysis.

CONSENT FOR PUBLICATION

Not Applicable.

DATA AVAILABILITY

The datasets during and analysed during the current study are available from the corresponding author on reasonable request.

REFERENCES

1. Charon R. Narrative medicine. JAMA. 2001;286(15):1897–1902. doi: 10.1001/jama.286.15.1897. PMID: 11597295.
2. Dang TKC, Yeh BI. Medical humanities education in Vietnamese medical schools: a comparative perspective from the USA and Republic of Korea. BMC Med Educ. 2025;25(1):891. doi: 10.1186/s12909-025-07380-8. PMID: 40598003.
3. Shi YX, Fu C. [A survey and countermeasure study on the current situation of humanistic quality education for medical students: taking Jiangxi University of Chinese Medicine as an example]. Jiangxi J Tradit Chin Med. 2015;27(8):88-91. Chinese.
4. Cui Y, Ye Z, Hu L, Xie K. Melody of genes: design and implementation of an interdisciplinary medical humanities course to enhance empathy, humanistic literacy, and professional identity in Chinese medical students. BMC Med Educ. 2026;26(1):1574. doi: 10.1186/s12909-026-09823-2. PMID: 42380858.
5. Jiang Y. [Exploration of integrating humanistic quality education into medical practice teaching]. Chin Med Humanit. 2013;2(3):45-7. Chinese.
6. Gitti SA, Al-Gburi A, Al-Bahadli R, *et al.* When patients say no: rethinking refusal in bedside medical education. clin teach. 2025;22(6):e70235.
7. Zhai H, Xue J, Wu H, Liao S, Lavender C, Lv Y, et al. A national perspective: integrating medical humanities to address burnout and stress in Chinese medical education. BMC Med Educ. 2025;25(1):304. doi: 10.1186/s12909-025-06875-8. PMID: 40001154.
8. Zhao X, Li X, Su Z, Su W, Wang Z. Narrative medicine in paediatric endocrinology rotations: a pilot study for Chinese medical students. BMC Med Educ. 2026:183. doi: 10.1186/s12909-026-09341-1. PMID: 42056963.
9. Zhongshan University Seventh Affiliated Hospital. ["Listen to the heart, write with emotion": exploring a new model of clinical medical humanities education at the Seventh Affiliated Hospital of Sun Yat-sen University]. 2022 May 20 [cited 2026 Mar 2]. In: Zhongshan University Seventh Affiliated Hospital Website. Available from: http://www.sysush.com/info/1234/5678.html. Chinese.
10. Yang X, Lin C, Zhao Y, *et al.* The effectiveness of the "Early clinical exposure" course based on narrative medicine in cultivating the professional qualities of undergraduates in clinical medicine: a mixed-methods study. BMC Med Educ. 2026;26(1):198.
11. Hou R, Xu C. A comparative study on the curriculum system of medical humanities education in six countries. Med Philos. 2025;46(11):46-51.
12. Liu N, Zhao M. [Building a distinctive education system for professional degree postgraduates in clinical medicine through medical ethics culture]. Guangming Daily. 2022;Sect. 6:4. Chinese.
13. Song XL, Wang Y, Jin LY, *et al.* [Research on innovation and application of workshop teaching model in medical humanities education: taking the "Doctor-Patient Communication" course at Harbin Medical University as an example]. Chin Med Ethics. 2024;37(12):1490-5. Chinese.

Cite this article: Gong M, Zhao F, Bi J, Wu F, Feng C, Wu H, Zhao Z, Zhang S, Du C. An Early Clinical Exposure Program in Multidisciplinary Breast Cancer Care: A Mixed-Methods Evaluation of Medical Humanities Education. Indian J of Pharmaceutical Education and Research. 2027;1-8.

www.ijper.org