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The effect of narrative medicine education in medical education：a protocol for a systematic review of randomized controlled trials

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ADMINISTRATIVE INFORMATION

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Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 3 December 2025 and was last updated on 3 December 2025.

INTRODUCTION

Review question / Objective To clarify the effectiveness of narrative medicine education in improving empathy levels among healthcare professionals (including nurses, residents, medical undergraduates,etc.).

Condition being studied In contemporary medical education, narrative medicine has become pivotal for balancing technical proficiency with humanistic care, aligning with the emphasis on patient-centeredness and empathy. It uses structured practices (e.g., patient narrative reading, reflective writing) to reshape how healthcare learners (students, residents, nurses) engage with patients and develop professionalism. RCTs across regions show it boosts empathy scores (via tools like JSE/IRI), especially in perspective-taking and emotional concern. It also fosters reflective practice, mitigating burnout among early-career professionals.
However, challenges persist: heterogeneous intervention designs (duration, format) hinder generalizability; long-term empathy retention evidence is scarce. Barriers include limited faculty training in narrative pedagogy, curricular time constraints, and vague outcome assessment. Most research focuses on high-resource settings' medical students/residents, lacking diversity.

METHODS

Participant or population All healthcare professionals will be included, including but not limited to medical undergraduates (majoring in clinical medicine, nursing, preventive medicine, etc.), residents, attending physicians, nurses (registered nurses, student nurses), pharmacists, and rehabilitation therapists. There will be no restrictions on gender, age, or region. Studies focusing on non-healthcare professionals or only family members of patients with specific diseases will be excluded.

Intervention The intervention group will receive narrative medicine education, including but not limited to narrative writing (case narratives, patient

story composition, reflective journals), narrative reading (literary works, patient narrative text analysis), narrative discussions (case narrative sharing, simulation and review of doctor-patient communication scenarios), and narrative film appreciation. The intervention format may include offline courses, online training, or blended learning, with no restrictions on intervention duration or frequency. The control group will receive conventional medical education (e.g., traditional lectures, skills training) or other non-narrative medicine educational interventions (e.g., communication skills lectures, role-playing without core narrative elements). Baseline characteristics (e.g., population demographics, basic training background) should be comparable between the two groups.

Comparator Without narrative education.

Study designs to be included RCT.

Eligibility criteria The language is limited to Chinese and English.

Information sources Chinese databases: China National Knowledge Infrastructure (CNKI), WanFang Data, VIP Chinese Science and Technology Periodical Database (VIP), Chinese Biomedical Literature Database (CBM); English databases: PubMed, Embase,ERIC (Education Resources Information Center),Education Source Ultimate.

Main outcome(s) The primary outcome measure is empathy, which must be quantified using validated standardized scales, including but not limited to the Jefferson Scale of Empathy (JSE), Interpersonal Reactivity Index (IRI), and Toronto Empathy Questionnaire (TEQ). Changes in total scale scores or subscale scores after intervention will be used as core data. Studies that only reflect empathy through qualitative descriptions (e.g., interview records, subjective evaluations) without quantitative data will be excluded.

Quality assessment / Risk of bias analysis The Cochrane Risk of Bias Tool 2.0 (ROB 2.0) will be used to assess the methodological quality of included RCTs. Two researchers will independently conduct the assessment, and disagreements will be resolved through discussion or arbitration by a third party.

Strategy of data synthesis RevMan 5.3 software will be used for statistical analysis. Heterogeneity among included studies will first be assessed using the I^2 statistic, combined with visual inspection of forest plots: If $I^2 \leq 50\%$ and $P \geq 0.10$, heterogeneity will be considered low, and a fixed-effects model will be used for meta-analysis; If $I^2 > 50\%$ and $P < 0.10$, heterogeneity will be considered high. Potential sources of heterogeneity (e.g., population type, intervention format, intervention duration, outcome scale, teaching theoretical basis) will be analyzed first. If significant clinical heterogeneity exists, subgroup analysis or sensitivity analysis will be conducted; If heterogeneity cannot be explained, a random-effects model will be used, or meta-analysis will be abandoned in favor of descriptive synthesis. For continuous outcome measures (empathy scale scores), the weighted mean difference (WMD) or standardized mean difference (SMD) will be used as the effect size, with 95% confidence intervals (CIs) calculated simultaneously. WMD will be used if all studies measure the same outcome using the same scale; SMD will be used if different scales measure the same core concept.

Subgroup analysis Population type subgroups: Medical students, nurses, residents, other healthcare professionals.

Sensitivity analysis 1. Reconducting meta-analysis after excluding studies with "high risk of bias" in methodological quality assessment; 2. Alternating between different effect models (fixed-effects model and random-effects model) for analysis.

Language restriction No limitation.

Country(ies) involved China.

Keywords narrative education, medicine education, systematic review.

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