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DEVELOPING COMPASSION AND EMPATHY IN MEDICAL STUDENTS

The article explores compassion in combination with empathy as a critical clinical competency that enhances diagnostic accuracy, treatment adherence, patient satisfaction, and physician well-being. Despite its importance, both compassion and empathy often decline during medical training, particularly in the transition from preclinical to clinical years. This study aims to develop evidence-based pedagogical strategies for effectively training compassion in combination with empathy to future doctors.

Compassion and empathy training remain inconsistently embedded within medical curricula worldwide, characterized by substantial variation in pedagogical approaches, assessment instruments and curricular integration. This study, therefore, proposes an integrated, evidence-based framework for compassion and empathy training that combines simulation-based learning, narrative medicine and mindfulness practices.

The article highlights the value of integrated, experiential, and reflective approaches for fostering both cognitive and affective empathy in combination with compassion. A comprehensive, evidence-driven approach can prepare future physicians not only to diagnose and treat but also to understand, connect with, and comfort their patients.

The study also recommends embedding empathy and compassion training longitudinally in medical curricula, training faculty as role models, using multi-method assessments, creating safe spaces for reflection, and promoting interprofessional collaboration. Embedding empathy and compassion into the very core of medical education represent a critical step toward building more compassionate, trustworthy, and patient-centered healthcare system. By systematically cultivating compassion and empathy, higher medical institutions can prepare physicians who are both clinically competent and emotionally attuned, thereby improving the quality of healthcare and reinforcing the humanistic foundations of medicine.

Key words: *compassion; empathy; medical education; medical students; cognitive empathy; affective empathy; simulation-based learning; reflective practice.*

Problem statement in general form and its relation to important scientific or practical tasks.

In contemporary medical education, the cultivation of compassion has emerged as a foundational professional empathetic competency, indispensable for high-quality patient care and the establishment of trust within the physician-patient relationship. Compassion, understood as both the cognitive capacity to apprehend a patient's perspective and the affective ability to resonate with their emotional state, is strongly correlated with improved diagnostic accuracy, enhanced patient satisfaction, greater adherence to therapeutic regimens, and a measurable reduction in physician burnout. Yet, despite its demonstrable significance, longitudinal studies consistently reveal a troubling decline in compassion among medical students, particularly during the transition from pre-

clinical coursework to clinical training. Contributing factors include the intensification of academic demands, emotional fatigue, and the implicit cultural norms of medical institutions, which often privilege technical proficiency over interpersonal sensitivity.

Fostering compassion as a part of empathy in future physicians cannot be reduced to the promotion of benevolence or superficial displays of kindness; it necessitates intentional, theory-driven, and evidence-based pedagogical interventions. Such training must integrate insights from psychological and educational theory with practical instruction in clinical communication and reflective practice. The role of faculty is pivotal – not only as formal instructors but also as exemplars whose professional conduct and attitudes shape students' values. Effective strategies encompass structured patient interactions, guided

reflective exercises, simulation-based learning, narrative medicine, and interprofessional education, all of which encourage students to internalize and authentically apply empathetic dispositions in combination with compassion in clinical encounters.

Despite growing recognition of its importance, compassion in combination with empathy training remains inconsistently embedded within medical curricula worldwide, characterized by substantial variation in pedagogical approaches, assessment instruments, and curricular integration. This lack of standardization highlights the pressing need to identify, validate, and disseminate best practices. Advancing toward a coherent, systematic, and sustainable model for compassion cultivation is, therefore, imperative for preparing the next generation of physicians to meet the complex humanistic as well as technical demands of modern healthcare.

The **objective** of the article is to develop pedagogical strategies for effectively training compassion together with empathy in future doctors, with an emphasis on evidence-based teaching methods, role modeling, and reflective practice. Specifically, the research seeks to:

- analyze the psychological and pedagogical foundations of compassion as a professional empathetic competency in medicine;
- identify best practices and innovative teaching techniques for compassion in combination with empathy development in medical students.

An analysis of recent research and publications. There are articles which highlight urgent problems: Costa P., de Carvalho-Filho M.A., Schweller M., Thiemann P., Salgueira A., Benson J. study measuring medical students' empathy skills; Kliszcz J., Nowicka-Sauer K., Trzeciak B., Nowak P., Sadowska A. investigate empathy in health care providers as validation study of the Polish version of the Jefferson Scale of empathy; Costa-Drolon E., Verneuil L., Manolios E., Revah-Levy A., Sibeoni J. define medical students' perspectives on empathy; Dores A.R., Martins H., Reis A.C., Carvalho I.P. reveal gender patterns in empathy and coping in allied health sciences; Elkin B., LaPlant E.M., Olson A.P.J., Violato C. suggest stability and differences in empathy between men and women medical students; Bernardo M.O., Cecílio-Fernandes D., Costa P., Quince T.A., Costa M.J., Carvalho-Filho M.A. determine physicians' self-assessed empathy levels which do not correlate with patients' assessments.

The article employs a comprehensive literature review **method** to provide a well-rounded analysis how compassion in combination with empathy is currently introduced into medical education. It is obvious to develop a comprehensive framework of multi-layered approach to compassion and empathy training.

Presentation of the basic research material. Over the past several decades, the cultivation of

compassion in combination with empathy within medical education has attracted scholarly attention, drawing insights from psychology, pedagogy, and the clinical sciences. Although definitions of compassion as integral part of empathy vary across disciplines, there is consensus comprising both cognitive and affective dimensions; its deliberate training yields measurable benefits for patient outcomes as well as physician well-being. Müller et al. [5] present a protocol for a mixed-methods, longitudinal intervention study aimed at developing empathy among healthcare professions students. This protocol underscores a systematic and evidence-based approach to fostering empathy as a core professional competency in healthcare education. The study is designed to evaluate how targeted educational interventions influence both the cognitive and emotional components of empathy over time. It integrates qualitative reflections, quantitative assessments, and experiential learning to provide a comprehensive understanding of empathy development. The authors emphasize the importance of continuous, structured training rather than one-time activities to sustain empathetic growth. At its core, empathy involves the capacity to understand a patient's experiences on both a cognitive and emotional level while maintaining professional boundaries, thus forming a cornerstone of effective physician-patient relationships. Mercer and Reynolds [4] explore the essential role of empathy in enhancing the quality of healthcare and patient outcomes. Their analysis demonstrates that empathetic interactions improve patient satisfaction, adherence to treatment, and overall clinical outcomes. They argue that empathy should be recognized as a core clinical skill, not merely a personal trait, and should be deliberately cultivated in medical training. Thus, fostering empathy is crucial for delivering patient-centered and high-quality medical care. The authors define clinical empathy as both an intellectual and emotional process that enables physicians to understand patients' perspectives and transform that understanding effectively. So, clinical empathy as the physician's ability to:

- understand the patient's situation, perspective, and feelings (and the meanings they attach to them),
- communicate that understanding and verify its accuracy,
- act upon that understanding in ways that are therapeutically beneficial.

While the centrality of compassion with empathy to medical practice is well established, its intentional cultivation within medical education remains underdeveloped and methodologically fragmented. The research demonstrates that experiential, reflective, and mindfulness-based approaches can effectively foster empathetic capacities among medical students. Crucially, compassion as a part of empathy must be translated from self-perception into

observable clinical behaviors, an essential requirement for authentic patient-centered care as empathy demonstrably enhances patient-physician communication and is positively correlated with patients' health outcomes [6].

Furthermore, reflective and narrative-based methodologies reveal a pedagogical shift from symptom-focused toward person-focused narratives, indicating deeper internalization of compassionate and empathetic orientations.

Despite these advances, many curricula continue to prioritize biomedical knowledge and technical proficiency at the expense of socio-emotional competencies, thereby reinforcing a hidden curriculum that implicitly devalues empathetic and compassionate engagement. Existing training programs in Ukraine often have insufficient longitudinal integration, reliance on non-standardized pedagogical techniques, and limited evaluation of their sustained impact on clinical practice. In the absence of systematic and sustained interventions, compassionate and empathetic dispositions of medical students frequently erode under the combined pressures of academic workload, emotional fatigue, and institutional cultures that emphasize efficiency and technical mastery over relational care. This pedagogical shortcoming undermines not only the quality of patient care but also professional satisfaction and psychological resilience of physicians contributing to the growing problem of burnout in the medical profession. The article by Scarlet et al. [7] examines the impact of Compassion Cultivation Training (CCT) on healthcare workers' well-being and professional functioning. The program, rooted in mindfulness and compassion-based practices, aims to enhance empathy, emotional resilience, and self-care among participants. Results show that CCT significantly reduces stress and burnout while increasing positive affect and compassionate attitudes toward oneself and others. The authors highlight that cultivating compassion involves developing mindful awareness of suffering, fostering empathy, and intentionally extending kindness. Structured compassion training can effectively support healthcare workers' mental health and improve the quality of care they provide.

Nevertheless, the cultivation of compassion "using the lens of positive organizational scholarship" according to Simpson, Farr-Wharton and Reddy [8] as a part of empathy in future physicians can be anchored in an interdisciplinary theoretical framework that integrates psychological constructs, pedagogical principles, and neuroscientific insights. Compassion in combination with empathy is commonly conceptualized along two complementary dimensions:

Cognitive empathy – the intellectual capacity to apprehend another person's perspective, closely associated with perspective-taking and theory of mind.

Affective empathy – the emotional resonance with another's feelings, often linked to compassion, concern, and prosocial motivation.

Simpson, Farr-Wharton and Reddy [8] explore strategies for cultivating organizational compassion within healthcare settings. The authors emphasize that compassion should extend beyond individual interactions to become an embedded organizational value and practice. They identify leadership behaviors, supportive team dynamics, and compassionate communication as key mechanisms for fostering a caring culture. The study underscores the importance of creating systems that recognize and respond to employee and patient suffering promptly and empathetically. Organizational structures, such as reflective practices and staff well-being initiatives, are shown to enhance collective compassion. Thus, compassion cultivation in healthcare requires both individual emotional skills and systemic cultural change to sustain a compassionate environment.

One may suggest that compassion in combination with empathy is neither an innate trait nor a superficial skill but a complex, multidimensional competency. Hughes [3] emphasizes the fundamental importance of empathy in the physician-patient relationship and its impact on effective medical care. The article argues that empathy allows physicians to truly understand patients' experiences, fears, and needs, leading to more accurate diagnoses and better adherence to treatment. Hughes highlights that being empathic not only benefits patients but also enhances physicians' professional satisfaction and reduces burnout. The author calls for empathy to be viewed as a core clinical skill that requires intentional cultivation and practice and suggests that medical education should include training in listening, emotional awareness, and compassionate communication. Ultimately, empathy is central to the art and humanity of medicine, forming the foundation of trust and healing in clinical practice. Its development requires deliberate, interdisciplinary approaches that harmonize psychological theory, pedagogical practice, and neuroscientific evidence to prepare physicians for the relational and humanistic dimensions of contemporary medical care. As the researcher Thomas F. Hughes [3] confirms that "the social revolution that is rapidly enveloping the field of medicine is not designed to produce physicians who are merely aware of the mechanism for acting in an empathetic manner, but, rather, it hopes to develop physicians who can remain both profoundly human and professionally competent in the clinical setting."

Although both compassion and empathy possess dispositional components, they can be intentionally cultivated through structured pedagogical interventions. A comprehensive training program must integrate diverse methods – including simulation, narrative medicine, and emotional regulation training – addressing both cognitive and affective

dimensions to provide a more holistic framework than traditional communication skills curricula alone. This theoretical integration reinforces the view that compassion and empathy are not fixed or innate traits but a dynamic competency that can be deliberately nurtured through targeted, evidence-based strategies. Hermasari and Nugroho [2] investigate how empathy develops among first-year medical students and the factors that influence this process. The study highlights that empathy can be nurtured through early exposure to patient experiences, reflective discussions, and collaborative learning. The authors found that active learning strategies as role-playing and case-based discussions significantly enhance students' emotional understanding and interpersonal sensitivity. Experiential modalities such as role-playing, standardized patient encounters, and simulation-based scenarios provide structured environments where students can practise empathic communication, receive compassionate feedback, and refine their interpersonal skills in a safe yet authentic setting. Longitudinal patient exposure – particularly in primary care or community-based contexts – has also been shown to sustain compassionate and empathic growth by grounding medical learning in genuine, ongoing relationships. They also emphasize the importance of supportive faculty attitudes and a positive learning environment in maintaining students' empathy. Overall, empathy learning should be an intentional and continuous component of medical education from the very first year.

Nevertheless, tensions remain. Compassion and empathy training frequently competes with dense

curricular requirements, and without institutional commitment, such initiatives risk becoming superficial or episodic. Batt-Rawden et al. [1] conducted a systematic review on teaching empathy to medical students, emphasizing its critical role in patient care and professional development. The review synthesizes evidence from diverse educational interventions such as communication skills training, reflective writing, empathetic listening, role-playing, and patient-centered experiences. The authors found that empathy can be effectively enhanced through structured, experiential, and reflective learning methods. They also note that maintaining empathy throughout medical education requires supportive institutional culture and faculty role models. Therefore, empathy is a trainable and essential competency that should be deliberately integrated into medical curricula. Successful programs, therefore, must be longitudinal, systematically integrated across the curriculum, and reinforced during both pre-clinical and clinical training.

The cultural context of medical education also requires careful consideration. While Western scientists often emphasize patient-centered care and narrative practices, in other cultural settings compassion and empathy may be framed through constructs such as respect or relational harmony. Pedagogical strategies must, thus, be culturally responsive, aligning with local norms and values while upholding the universal principles of humanistic medicine.

Another critical dimension is the role of faculty modeling. Evidence consistently demonstrates that students learn empathic and compassionate behaviors more effectively through observation of

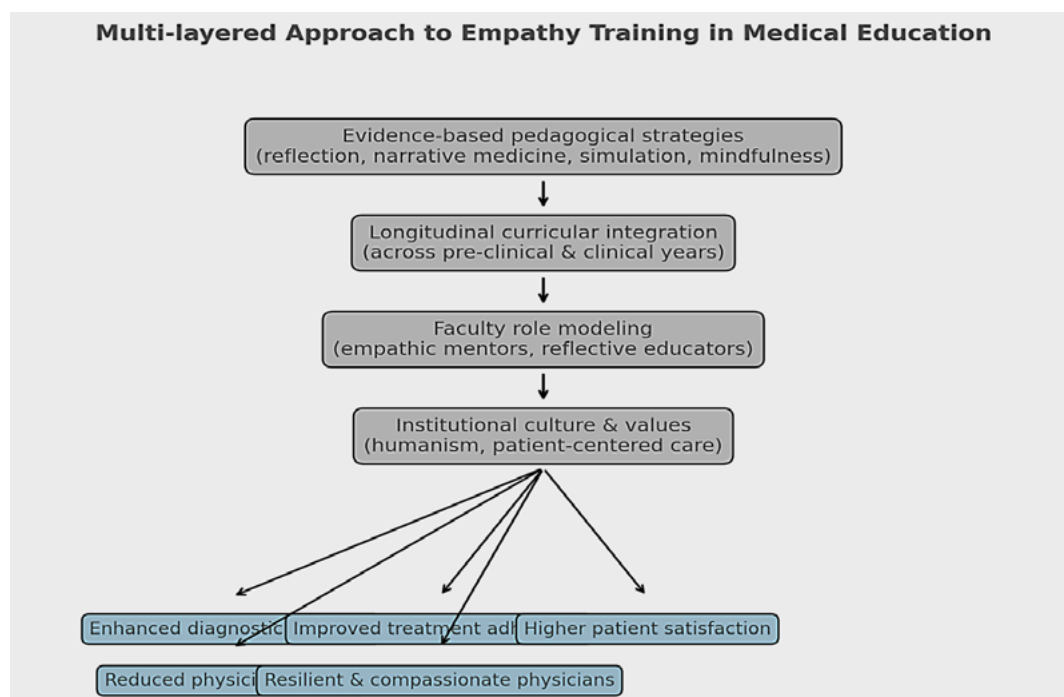


Fig. 1. Multi-layered approach to empathy training

respected mentors than through formal instruction alone. Faculty development programs are, therefore, indispensable: they should encourage reflective practice, strengthen communication skills, and promote role modeling of empathetic and compassionate attitudes. By creating a learning environment where compassion in combination with empathy is visibly valued and authentically practised, educators can foster its sustained internalization among future physicians. A conceptual figure (Fig. 1) illustrates the multi-layered approach to empathy training (pedagogy, longitudinal integration, faculty modeling, and culture) leading to clinical and professional outcomes such as diagnostic accuracy, patient satisfaction, and physician resilience.

Developing compassion and empathy in medical students require a multi-layered and sustained approach integrating evidence-based pedagogical strategies, embedding them longitudinally across the curriculum, equipping faculty as role models and aligning institutional culture with the broader humanistic values of medicine. The researchers Neumann et al. [6] conducted a systematic review investigating the decline of empathy among medical students and residents, identifying patterns and contributing factors. The review found consistent evidence that empathy tends to decrease during medical education, particularly in the clinical years. The authors attribute this decline to high academic pressure, emotional fatigue, time constraints, and exposure to a biomedical, rather than humanistic, model of care. They also note that a lack of role models and insufficient institutional support further exacerbate the erosion of empathy. The study emphasizes the need for curricular reforms that integrate reflective practice, emotional self-awareness, and patient-centered communication. The authors conclude that addressing empathy decline requires systemic educational changes to balance clinical competence with humanistic care. As Neumann, Edelhäuser, Tauschel [6] stress “empathy declines during medical school and residency compromises striving toward professionalism and may threaten healthcare quality.” This statement underscores both the urgency and the complexity of fostering compassion and empathy within medical education.

Conclusion. Medical education today faces the dual challenge of mitigating the natural decline of compassion and empathy during the clinical training years while actively cultivating the resilience and humanistic orientation demanded by modern healthcare. A comprehensive, evidence-driven approach can prepare future physicians not only to diagnose and treat but also to understand, connect with, and comfort their patients. Embedding empathy into the very core of medical education represents a critical step toward building a more compassionate, trustworthy, and patient-centered healthcare system.

Compassion in combination with empathy must be understood as both a teachable skill and a professional virtue, indispensable to effective clinical practice. Evidence demonstrates that intentional pedagogical strategies – particularly those centered on reflection, narrative engagement, experiential learning, and authentic patient interaction – can significantly strengthen both compassionate and empathic capacities among medical students. Yet, such interventions are most effective when delivered longitudinally, contextualized culturally, and reinforced by empathic faculty role models who embody the values they seek to transmit.

Far from being an optional or peripheral trait, compassion constitutes a core clinical competency with direct consequences for diagnostic accuracy, treatment adherence, patient satisfaction, and physician well-being. This study, therefore, proposes an integrated, evidence-based framework for empathy training in combination with compassion combining simulation-based learning, narrative medicine, and mindfulness practices. Such a model addresses both the cognitive and affective dimensions of compassion and empathy, equipping future physicians to balance technical expertise with emotional attunement to their patients' needs. Compassion education in combination with empathy can achieve its full transformative potential only through systematic refinement shaping physicians who are not merely competent practitioners but also compassionate and empathetic healers.

In terms of **prospects** in the research area, pedagogical strategies are required to determine training process at higher medical institutions in postwar period.

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Ісаєва О. С., Кушка Б. Г. Розвиток співчуття та емпатії у студентів-медиків

У статті досліджується співчуття в поєднанні з емпатією як критична клінічна компетенція, що підвищує точність діагностики, дотримання режиму лікування, задоволеність пацієнтів та благополуччя лікарів. Незважаючи на свою важливість, роль співчуття та емпатії часто нівелюються під час медичної підготовки, особливо під час переходу від доклінічного до клінічного навчання. Це дослідження має на меті розробити педагогічні стратегії, засновані на доказах, для ефективного навчання майбутніх лікарів співчуттю в поєднанні з емпатією. Також використовується багатометодний підхід, що поєднує комплексні огляди літератури, щоб забезпечити аналіз на основі доказів того, як співчуття в поєднанні з емпатією наразі впроваджується в медичну освіту. Очевидною є необхідність розробки комплексної системи багаторівневого підходу як до навчання співчуттю, так і емпатії.

Навчання співчуттю та емпатії залишається непослідовно імплементованими у навчальні програми в усьому світі, що характеризується суттєвими відмінностями в педагогічних підходах, інструментах оцінювання та інтеграції в навчальні програми. Це дослідження пропонує інтегровану, засновану на доказах основу для навчання співчуттю та емпатії, яка поєднує симуляційне навчання, нарративну медицину та практики усвідомленості.

У статті підкреслюється цінність інтегрованих, емпіричних та рефлексивних підходів для розвитку як когнітивної, так і афективної емпатії у поєднанні зі співчуттям. Комплексний, заснований на доказах підхід може підготувати майбутніх лікарів не лише до діагностики та лікування, але й до розуміння, встановлення зв'язку та комфорту пацієнтів.

У дослідженні також рекомендується впроваджувати навчання емпатії та співчуття в медичні навчальні програми, навчати викладачів як взірців для наслідування, використовувати різноманітні методи оцінювання, створювати безпечні простори для рефлексії та сприяти міжпрофесійній співпраці. Упровадження емпатії та співчуття в основу медичної освіти є критично важливим кроком для побудови більш співчутливої, надійної та орієнтованої на пацієнта системи охорони здоров'я. Систематично розвиваючи співчуття та емпатію, вищі медичні заклади можуть готувати лікарів, які є клінічно компетентними та емоційно налаштованими, тим самим покращуючи якість медичної допомоги та зміцнюючи гуманістичні основи медицини.

Ключові слова: співчуття; емпатія; медична освіта; студенти-медики; когнітивна емпатія; афективна емпатія; симуляційне навчання; рефлексивна практика.

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