Empathy

- The mediating role of empathy and moral sensitivity in nurses' spiritual health and spiritual caregiving competence: a cross-sectional study
- Enhancing the performance of neurosurgery medical question-answering systems using a multi-task knowledge graph-augmented answer generation model
- Comparison of quality, empathy and readability of physician responses versus chatbot responses to common cerebrovascular neurosurgical questions on a social media platform
- "Starting on the Right Foot": An Algorithmic Approach to Facilitate an Improved ICU Admission Process
- Application of AI Chatbot in Responding to Asynchronous Text-Based Messages From Patients With Cancer: Comparative Study
- Self-Inflicted Head Injury in Behavioral Variant Frontotemporal Dementia with Compulsive Behaviors: A Case Report
- Subthalamic Deep Brain Stimulation: Mapping Non-Motor Outcomes to Structural Connections
- Digital communication and social cognition in adults with frontal lobe epilepsy: A scoping review

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Empathy is considered the ability to understand or feel others emotions or experiences. As an important part of medical education, empathy can affect medical students in many ways. It is still lacking a comprehensive evaluation of the existing articles on empathy's impact on medical students, despite the existence of many articles on the topic.

To summarize the impact of empathy on medical students during medical education from four perspectives: mental health, academic performance, clinical competence, and specialty preference.

Methods: The search terms used for retrieval were "empathy", "medical student", "mental health", "depression", "anxiety", "burnout", "examinations", "academic performance", "clinical competence", "specialty preference" on PubMed, EBSCO, and Web of Science before January 2024. The search was carried out by two reviewers. Titles and abstracts were screened independently and reviewed based on inclusion/exclusion criteria. A consensus was drawn on which articles were included.

The results indicated that high empathy was a positive factor for mental health, However, students with high affective empathy were more likely to suffer from depression, anxiety, and burnout. Empathy was found to be unrelated to academic performance, but positively correlated with clinical competence, particularly in terms of communication skills. Medical students with high levels of empathy tended to prefer people-oriented majors.

Medical students who score higher on the self-reported empathy scales often have better mental health, better communication skills, and tend to choose people-oriented specialties. But empathy is not related to academic performance. Additionally, the different dimensions of empathy have different impacts on medical students. It is necessary to design targeted courses and training for medical students to enhance their empathy [1].

Human empathic experience is a multifaceted psychological construct which arises from functional integration of multiple neural networks. Despite accumulating knowledge about the cortical circuitry

of empathy, almost nothing is known about the connectivity that may be concerned in conveying empathy-related neural information. To bridge this gap in knowledge, we studied dispositional empathy in a large-sized cohort of 107 patients who had undergone surgery for a diffuse low-grade glioma. The self-report questionnaire used enabled us to obtain a global measure of subjective empathy but also, importantly, to assess the two main components of empathy (cognitive and emotional). Data were processed by combining voxelwise and tractwise lesion-symptom analyses. Several major findings emerged from our analyses. First of all, topological voxelwise analyses were inconclusive. Conversely, tractwise multiple regression analyses, including all major associative white matter pathways as potential predictors, yielded to significant models explaining substantial part of the behavioural variance. Among the main results, we found that disconnection of the left cingulum bundle was a strong predictor of a low cognitive empathy ($p < 0.0005$ Bonferroni-corrected). Similarly, we found that disconnection of the right uncinate fasciculus and the right inferior fronto-occipital fasciculus predicted, respectively, a low ($p < 0.05$ Bonferroni-corrected) and a high ($p < 0.05$ Bonferroni-corrected) subjective empathy. Finally, although we failed to relate emotional empathy to disruption of a specific tract, correlation analyses indicated a positive association between this component of empathy and the volumes of residual lesion infiltration in the right hemisphere ($p < 0.01$). Taken as a whole, these findings provide key fundamental insights into the anatomical connectivity of empathy. They may help to better understand the pathophysiology of empathy impairments in pathological conditions characterized by abnormalities of long-range anatomical connectivity, such as autism spectrum disorders, schizophrenia and fronto-temporal dementia [2].

[1]

Chen H, Xuan H, Cai J, Liu M, Shi L. The impact of empathy on medical students: an integrative review. BMC Med Educ. 2024 Apr 25;24(1):455. doi: 10.1186/s12909-024-05448-5. PMID: 38664799.
[2]

Herbet G, Lafargue G, Moritz-Gasser S, de Champfleur NM, Costi E, Bonnetblanc F, Duffau H. A Disconnection account of subjective empathy impairments in diffuse low-grade glioma patients. Neuropsychologia. 2015 Feb 13. pii: S0028-3932(15)00076-7. doi: 10.1016/j.neuropsychologia.2015.02.015. [Epub ahead of print] PubMed PMID: 25687031.

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