

Staff Library & Knowledge Service

# Mid Yorkshire Medical Education Teaching, Training Update



## May 2024

A quarterly publication produced by the  
Staff Library and Knowledge Service, Mid Yorkshire Teaching NHS  
Trust

[midyorks.library.pgh@nhs.net](mailto:midyorks.library.pgh@nhs.net)

## Contents

### **Evidence Search Results from your Knowledge & Library Service ..... 4**

1. Correlation of Academic Performance with Student Attendance in Pre-Clinical and Clinical Years of Undergraduate Medical Education.....	4
2. A descriptive study on awareness and attitude of medical undergraduates about the transgender population and their healthcare needs .....	5
3. Pre- and post-examination reflections of first-year medical students in an integrated medical anatomy course.....	6
4. The Role of a Ladderlike Communication Skill Course on Fostering Doctor-Patient Communication Competence of Students in Rural-oriented Free Tuition Medical Education Program .....	6
5. A scoping review of the ethical impacts of international medical electives on local students and patient care .....	7
9. Food Systems and Planetary Health Nexus Elective: A Novel Approach to A Medical Education Imperative for the 21st Century .....	10
10. Training Medical Student Counselors for the Rochester Model, a Hospital Tobacco Treatment Program .....	11
11. The Need for Improved End-of-Life Care Medical Education: Causes, Consequences, and Strategies for Enhancement and Integration.....	12
12. Visual Intelligence Education as a Tool for Enhancing Medical Students' Self-Perception of Communication Skills .....	13
13. A comparison of pre- and post-clinical education learning preferences among medical students who elected to dissect compared to those who did not during the COVID-19 pandemic .....	14
15. Informal peer-assisted learning amongst medical students: A qualitative perspective .....	16

16. Exploring Medical Professionalism amongst Postgraduate Trainees of Bolan Medical Complex Hospital Quetta.....	16
17. Assessment of knowledge, attitude, and practice of rational antibiotic use among medical students in a tertiary care teaching hospital of upper Assam -- A cross-sectional study .....	17
18. Graduate Medical Education in Pathology: A Scoping Review .....	17
19. Are we teaching the health impacts of climate change in a clinically relevant way? A systematic narrative review of biomechanism-focused climate change learning outcomes in medical curricula .....	18
20. Artificial intelligence and medical education: application in classroom instruction and student assessment using a pharmacology & therapeutics case study.....	19
21. In what ways will AI enhance psychometric testing in the workplace?.....	20
22. Assessing Student Leaders' Leadership Styles and Conflict Management.....	20
23. Enhancing self-care education amongst medical students: a systematic scoping review .....	21
25. Physical activity and mental health of medical students .....	23
27. A systematic review of large language models and their implications in medical education .....	25
Resources .....	27

## Evidence Search Results from your Knowledge & Library Service

### 1. Correlation of Academic Performance with Student Attendance in Pre-Clinical and Clinical Years of Undergraduate Medical Education

**Item Type:** Journal Article

**Authors:** Amjad Ali Khan, Usman Mahboob

**Publication Date:** 2024

**Journal:** Journal of Islamic International Medical College 18(4), pp. 279-285

**Abstract:** Objective: To investigate the correlation between student attendance and academic performance in undergraduate medical education, with a focus on exploring potential similarities or differences in correlation patterns between pre-clinical and clinical years. Study Design: Retrospective cross-sectional, correlational study. Place and Duration of Study: Saidu Medical College Swat Pakistan from 1 March 2018 to 26 November 2020. Materials and Methods: A total of 450 students from preclinical and clinical years were studied. Student attendance and marks obtained during their annual exams were converted to percentage values. To measure the strength of correlation, the Pearson Correlation coefficient was calculated using SPSS version 25. Initially, the correlation coefficient of Pre-clinical and Clinical students was calculated independently, the results were then compared against each other to understand the difference between the two cohorts. Scatter plots and regression analysis were calculated to depict the relation between variables. A p-value < 0.05 was deemed statistically significant. Result: A statistically significant positive correlation between class attendance and academic performance of pre-clinical students was found ( $r = 0.227$ ,  $p < 0.001$ ). The mean attendance of Pre-Clinical Students was (86.4) with a standard deviation of  $SD \pm 5.638$ . Analysis of clinical students revealed a very weak negative but statistically insignificant correlation, ( $r = -0.037$ ,  $p < 0.73$ ). Mean attendance was measured to be (83.1) with a standard deviation of  $SD \pm 5.83$ . Conclusion: This study points to a previously unexplored dissimilarity in the correlation between lecture attendance and academic performance among clinical year as compared with pre-clinical year students, underscoring the dynamic nature of the relationship between attendance and academic performance throughout different phases of medical education. Further research exploring the factors influencing academic performance in clinical years is required to understand the complex interplay between attendance and academic performance.

**DOI:** 10.57234/jiimc.december23.1692

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edsdoj&AN=edsdoj.0db4215d8c24d8798f754b0e0eae2cb&site=eds-live&custid=ns124082>

## 2. A descriptive study on awareness and attitude of medical undergraduates about the transgender population and their healthcare needs

**Item Type:** Generic

**Author:** Anitha, V., Naresh Kumar, T. and Ianisho, Leonard J.

**Publication Date:** 2024

**Publication Details:** International Journal of Basic & Clinical Pharmacology, 13, (1) pp.80. MEDIP HealthTech Private Limited.

**Abstract:** INTRODUCTION The term transgender, or trans, describes an array of individuals whose sex assigned at birth differs from their current gender identity or one's sex of being male, female, neither, ...]; Background: Medical education in transgender health care can empower physicians to identify and change the systemic barriers to care that cause transgender inequities as well as improve knowledge about transgender specific care. The objective of this study is to estimate the awareness among medical students about the terms related to transgender and their healthcare needs, to create an environment of inclusivity and educate the undergraduate MBBS students to provide highest level of care and advocacy for transgender population and to stress on the fact that the transgender education in the medical curriculum is an inevitable one in the modern medical practice. Methods: Knowledge questionnaire and TABS scale questionnaire was distributed to the 150 students through Google forms and their responses were collected. Knowledge questionnaire was given a score as 1 point for each (28 points). TABS questionnaire was assessed with Likert scale. Results: 52.6 percentage of the students have scored below the median and remaining 48.4 percentage of students have scored above the median score. The undergraduate students have a basic understanding about the healthcare needs of the transgender population and attitude towards transgender is on par with population of similar age group Conclusions: It is been observed that more knowledge regarding the terms about transgender population and their healthcare needs is needed for undergraduate students. A good curriculum to teach about basic health needs of transgender population has to be discussed. Keywords: Transgender, Attitude, TABS scale

**ISSN/ISBN:** 2319-2003

**DOI:** 10.18203/2319-2003.ijbcp20233896

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edsgih&AN=edsgcl.779352250&site=eds-live&custid=ns124082>

### 3. Pre- and post-examination reflections of first-year medical students in an integrated medical anatomy course

**Item Type:** Journal Article

**Authors:** Cale, Andrew S.;Hoffman, Leslie A. and McNulty, Margaret A.

**Publication Date:** 2024

**Journal:** Anatomical Sciences Education 17(1), pp. 186-198

**Abstract:** Due to the rigor and pace of undergraduate medical anatomy courses, it is not uncommon for students to struggle and fail initially. However, repetition of coursework places an additional burden on the student, instructor, and institution. The purpose of this study was to compare the exam preparation strategies of repeating and non-repeating students to identify areas where struggling students can be supported prior to course failure. As part of their integrated anatomy course, first-year medical students at Indiana University completed a metacognitive Practice-Based Learning and Improvement (PBLI) assignment prior to and after their first exam. In the PBLIs, students were asked to reflect on their exam preparation strategies, confidence, and satisfaction, as well as their predicted and actual exam performance. PBLI responses from non-repeating and repeating students were then analyzed quantitatively and qualitatively. A total of 1802 medical students were included in this study, including 1751 non-repeating and 51 repeating students. Based on their PBLI responses, non-repeating students were appropriately confident, somewhat satisfied, and more accurate when predicting their exam performance. Repeating students were overconfident, dissatisfied, and inaccurate when predicting their first exam performance on their initial, unsuccessful attempt but were more successful on their second, repeat attempt. Qualitative analysis revealed that repeating students aimed to improve their studying by modifying their existing study strategies and managing their time more effectively. In conjunction with other known risk factors, these insights into repeater and non-repeater exam preparation practices can help anatomy educators better identify and support potential struggling students. (© 2023 The Authors. Anatomical Sciences Education published by Wiley Periodicals LLC on behalf of American Association for Anatomy.)

**DOI:** 10.1002/ase.2340

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=cmedm&AN=37772662&site=eds-live&custid=ns124082>

### 4. The Role of a Ladderlike Communication Skill Course on Fostering Doctor-Patient Communication Competence of Students in Rural-oriented Free Tuition Medical Education Program

**Item Type:** Journal Article

**Authors:** CHEN Enran, SHEN Ying, WEI Yuning, WEI,Siyu

**Publication Date:** 2024

**Journal:** Zhongguo Quanke Yixue 27(13), pp. 1561-1567

**Abstract:** Background The phase of undergraduate medical education is the starting point for fostering communication competence of students in Rural-oriented Free Tuition Medical Education Program (RTME), which lays the foundation both for communication competence training in the postgraduate education phase and performing effective communications with patients and their relatives, colleagues, and other

health personnel in the career life of general practitioners (GPs). It is of great practical significance to explore how to improve quality of doctor-patient communication education in the stage of undergraduate medical education and develop doctor-patient communication competence of the RTME students.

**Objective** To explore the role of the ladderlike communication skill course on fostering doctor-patient communication competence of students in rural-oriented free tuition medical education program.

**Methods** A total of 259 RTME students of Grade 2019 were selected from Guangxi Medical University in September 2019 to establish Cohort 1, and 262 undergraduate medical students of Grade 2019 were selected to establish Cohort 2. From September 2019 to January 2022, the students in Cohort 1 were trained in a ladderlike communication skill course lasting for five consecutive semesters; from September 2021 to January 2022, the students in both cohorts were trained in a doctor-patient communication course. The final exam scores and process assessment scores of the two cohorts on the doctor-patient communication course were compared and the evaluation of teaching effectiveness and satisfaction of ladderlike communication skill course were investigated in the students in Cohort 1.

**Results** The RTME students achieved significantly greater total scores for the final exam of the doctor-patient communication course, in which the RTME students performed better on the sections of case analysis and small essay, but worse on the single-choice question section compared to the undergraduate medical students ( $P < 0.05$ ). Over 80% of RTME students felt satisfied or absolutely satisfied with the content, pedagogical measures, faculty, schedule and effects of the ladderlike communication skill course, and more than 60% believed it helped or absolutely helped promote learning interest, increase confidence to encounter difficult patients, and raise multiple competence, including empathy, doctor-patient communication, language expression, problem resolution, and team work.

**Conclusion** The ladderlike communication skill course significantly elevates the effects of doctor-patient communication education in the phase of undergraduate medical education for the RTME students, facilitates the development of doctor-patient communication competence and other comprehensive competence. The ladderlike course mode is an effective measure fostering doctor-patient communication competence of medical students in medical education, and makes a useful reference for communication competence training for postgraduate education and continuing education of general practice.

**DOI:** 10.12114/j.issn.1007-9572.2023.0215

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edsdoj&AN=edsdoj.15822f7dad2e40f6b7e73a62851a3003&site=eds-live&custid=ns124082>

## 5. A scoping review of the ethical impacts of international medical electives on local students and patient care

**Item Type:** Journal Article

**Authors:** Chmura, Magdalena and Nagraj, Shobhana

**Publication Date:** 2024

**Journal:** BMC Medical Ethics 25(1), pp. 1-8

**Abstract:** Background: International electives are often considered a valuable learning opportunity for medical students. Yet, as travelling to lower and middle income countries (LMICs) becomes more common, ethical considerations of such practices emerge. We conducted a scoping review to assess the extent to which five ethical themes were addressed in existing literature about electives, with the aim of investigating the ethical impacts of medical student electives on local resources, patients and clinicians in LMICs. Methods: We systematically searched PubMed, Global Health and Embase databases using the search terms "(ethics) AND (medical electives)". Thematic content analysis was undertaken using a

combination of deductive and inductive themes. The deductive themes included: exceeding clinical competence, use of limited local resources, respect for patients and local culture, collaboration with local community/colleagues, and one-sided benefits in partnership. In addition, we also allowed for emerging themes within the data, and conducted a narrative synthesis of the results. Results: A total of 37 papers discussed ethical issues relating to medical student international electives to LMICs. More publications were written from the medical student perspective (n = 14), than by the host-institution (n = 5), with nearly half written from third-party perspectives (n = 18). Negative impacts on local host students and impact upon patient care were identified as additional ethical considerations. Conclusions: Our review demonstrated that while there is a degree of awareness in the existing literature of the potential negative impacts of medical electives to local LMIC students' access to medical education and patient care, continued work is needed to ensure equitable partnerships. We recommend that these ethical themes should be further explored in pre-departure elective teaching courses and post-elective debriefs to increase medical students' awareness of the impact of their presence on host communities. ABSTRACT FROM AUTHOR]; Copyright of BMC Medical Ethics is the property of BioMed Central and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use. This abstract may be abridged. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material for the full abstract. (Copyright applies to all Abstracts.)

**DOI:** 10.1186/s12910-023-00998-7

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edb&AN=174577667&site=eds-live&custid=ns124082>

## 6. Medical students' awareness of overdiagnosis and implications for preventing overdiagnosis

**Item Type:** Journal Article

**Authors:** Colbert, Lucinda;Hegazi, Iman;Peters, Kath and Edmiston, Natalie

**Publication Date:** 2024

**Journal:** BMC Medical Education 24(1), pp. 1-10

**Abstract:** Abstract Overdiagnosis is a growing health issue, yet our understanding of medical students' exposure to this concept within medical education is limited. Our aim was to explore students' experience of diagnostic learning to identify how overdiagnosis may be understood by students. During in-person and online semi-structured interviews throughout 2021, we explored the education experience of twelve Western Sydney University medical students in years 3–5. Through inductive thematic analysis we identified four themes. These themes encompassed student commitment to learning about diagnosis, lack of certainty surrounding diagnosis and emotional factors of medical care, overdiagnosis as seen through the lens of high and low-value care during clinical placements and student-identified missed learning opportunities related to overdiagnosis. This study found that medical students develop inherent knowledge of overdiagnosis through an interplay of personal factors, medical school curriculum and the setting in which their training takes place. Our findings allow insight for future improvement of medical curriculum to produce exceptional medical graduates.

**DOI:** 10.1186/s12909-024-05219-2

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edsdoj&AN=edsdoj.2f92581289194baaa0fd9bc0bf3b315e&site=eds-live&custid=ns124082>



## 7. The tools of the future are the challenges of today: The use of ChatGPT in problem-based learning medical education

**Item Type:** Journal Article

**Authors:** Divito, Christopher B.;Katchikian, Bryan M.;Gruenwald, Jenna E. and Burgoon, Jennifer M.

**Publication Date:** 2024

**Journal:** Medical Teacher 46(3), pp. 320-322

**Abstract:** What is the educational challenge? Incorporation of large language model (LLM) or generative artificial intelligence (AI) software poses a challenge to various areas of medical education, including problem-based learning (PBL). LLMs, such as ChatGPT, have incredible potential to transform educational systems and enhance student learning outcomes when used responsibly. What are the proposed solutions? ChatGPT can provide several ways to support students and assist facilitators with course responsibilities. Here we address factors of implementation and describe how ChatGPT can be responsibly utilized to support key elements of PBL. How was the solution implemented? Providing reasonable access is an essential element of novel software implementation. Additionally, training for both faculty and staff is vital to foster responsible usage, provide base-line proficiency, and guide users to critically evaluate the quality of output. What lessons were learned that are relevant to a wider audience? The use of LLMs or other generative AI is dramatically rising in the world. Appropriate and conscientious incorporation of AI into educational programs can foster responsible use and potentially enhance student learning. What are the next steps? Assessment of learning outcomes, student self-efficacy, group dynamics, and stakeholder feedback are required to measure the effects of ChatGPT in the PBL curriculum. Additionally, software programs competitive with ChatGPT are currently under development and will also need to be investigated for their potential role in education.

**DOI:** 10.1080/0142159X.2023.2290997

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=cin20&AN=175643341&site=eds-live&custid=ns124082>

## 8. Pedagogies of Creativity: Attending Seriously to Student Agency in Learning and Teaching

**Item Type:** Generic

**Author:** Frueh, Jamie

**Publication Date:** 2024

**Publication Details:** The Oxford Handbook of International Studies Pedagogy;, Oxford University Press.

**Abstract:** Recognizing global politics courses as opportunities for both students and teachers to express their creativity enhances the educational experience for all involved. Constructivist approaches to human creativity provide an ontological foundation for pedagogical strategies that treat learners and teachers as collaborators in the project of education and pedagogies of creativity engage the agency of both students and teachers of global politics. Learners are agents of the changes to their own knowledge and understanding. Teachers are agents of the learning environments in which engaged and metacognitive learners attend both to course material and to the mental processes through which they integrate new ideas into their existing understandings. Design thinking is one process for actualizing instructor creativity

in building coursework and classroom tactics specific to learning outcomes, institutional contexts, and student populations. For example, designing and implementing group oral examinations improved learning about both the patterns of human interactions across differences and the processes of group deliberations.

**ISSN/ISBN:** 978-0-19-754489-1; 0-19-754489-4

**DOI:** 10.1093/oxfordhb/9780197544891.013.12

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edsoho&AN=edsoho.9780197544891.013.12&site=eds-live&custid=ns124082>

## **9. Food Systems and Planetary Health Nexus Elective: A Novel Approach to A Medical Education Imperative for the 21st Century**

**Item Type:** Journal Article

**Authors:** Goldman, Modan;Vaidyam, Aditya;Parupalli, Sindhu;Rosencranz, Holly;Ramkumar, Davendra and Ramkumar, Japhia

**Publication Date:** 2024

**Journal:** Challenges (20781547) 15(1), pp. 6

**Abstract:** This is a report on an inaugural medical student elective, Microbiomes Matter: The Path to Regenerative Systems of Farm, Food, and Health, from the perspective of the student participants. Recognizing food as medicine is gaining support across many settings. However, little is known about how medical schools engage in this holistic approach. Integrating food systems and the connections to soil and human health through microbiomes into medical education represents a transformative shift towards more holistic healthcare practices. We describe the course content and impact of a medical school elective in food systems. This elective employed a systems lens and planetary health perspective to explore the impact of climatic factors and environmental degradation on farms, nutrition, and non-communicable lifestyle diseases. Through the two-week course, medical students gained insights into sustainable food systems, supply chains, and the importance of regenerative agriculture. The course also provided a comprehensive overview of the gut microbiome, nutrition, technologies, and the economics of food systems, including their impact on lifestyle diseases. By fostering a systems-oriented mindset, this elective better equips medical students to address the complex challenges of human and planetary health and promote regenerative, sustainable, culturally sensitive, and robust systems of farm, food, and health. ABSTRACT FROM AUTHOR]; Copyright of Challenges (20781547) is the property of MDPI and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use. This abstract may be abridged. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material for the full abstract. (Copyright applies to all Abstracts.)

**DOI:** 10.3390/challe15010006

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edb&AN=176302439&site=eds-live&custid=ns124082>

## 10. Training Medical Student Counselors for the Rochester Model, a Hospital Tobacco Treatment Program

**Item Type:** Journal Article

**Authors:** Grable, J. C.;Shan, K.;Wang, M.;Han, D. D.;Sportiello, K.;Chang, M.;Sysol, J. R.;Bugbee, D. and Peltzer, K.

**Publication Date:** 2024

**Journal:** Journal of Multidisciplinary Healthcare ume 17, pp. 601-607

**Abstract:** John C Grable,1,\*; Kevin Shan,1,\*; Matthew Wang,1,\*; Daniel D Han,1,\*; Kristen Sportiello,1,\*; Melissa Chang,1,\*; Justin R Sysol,1,\*; Doris Bugbee,2,\*; Kenneth Peltzer1,\*; 1Department of Medicine, University of Rochester School of Medicine, Rochester, NY, USA; 2Department of Nursing, University of Rochester School of Medicine, Rochester, NY, USA\*These authors contributed equally to this workCorrespondence: John C Grable, University of Rochester School of Medicine, 601 Elmwood Avenue, Rochester, NY, 14642, USA, Tel +1 585-275-7424, Fax +1 585-276-2820, Email [john\\_grable@urmc.rochester.edu](mailto:john_grable@urmc.rochester.edu)Purpose: Providing effective tobacco dependence treatments to hospitalized patients remains a challenge. Prior to 2021, the Rochester Model program used staff nurses for both bedside and post-discharge counseling necessary to maintain abstinence. When nurse shortages and elevated job stress occurred during the COVID Pandemic, we proposed that medical students learn to counsel patients at the bedside and after discharge. Patients and Methods: Due to COVID restrictions, first- and second-year medical students trained using remote Zoom sessions. The total training time was 2.5 hr without role-play or additional evaluations. A survey measured the students' satisfaction, confidence, and counseling barriers. A smoking patient on a participating hospital unit can enroll in the program. Students delivered bedside counseling, then provided follow-up treatment and outcome calls along with New York State Quitline counselors. Results: The survey demonstrated that 89% of the students were satisfied with the training. The bedside counseling confidence was greater than the phone counseling confidence. All students felt the program experience has value to them as future physicians. 124 smoking patients enrolled, and outcomes followed out to 6 months. The 7-day point prevalence quit rates using the as-treated (patients contacted) analysis were 57% at 4 weeks, 48% at 3 months, and 43% at 6 months. The 7-day point prevalence quit rates using the intent-to-treat (all patients) analysis were 31% at 4 weeks, 16% at 3 months and 14% at 6 months. Conclusion: Medical students given minimal training are effective tobacco cessation counselors at no cost to the hospital system. The Rochester Model program using student counseling benefits patients, the students, and the health-care system. Plain Language Summary: Hospitalization is an opportunity to help smokers quit. Successful programs require both bedside counseling and post-discharge contacts beyond a month. Cost remains the major issue for treating hospitalized smokers. Prior to the COVID Pandemic, the Rochester Model program used hospital nurses as bedside, post-discharge call counselors and champions. However, during the Pandemic, nurse shortages and work stress reduced their participation. Medical students seeking early patient contact trained as counselors, and the program shows promising quit rates at no cost. The Rochester Model supports the real-world application of medical students in hospital tobacco treatment programs. Keywords: tobacco dependence treatment, medical students, nurse counseling, quit-line counseling

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edsdoj&AN=edsdoj.5b96d225b2214e94b0756896b5924dfa&site=eds-live&custid=ns124082>

## 11. The Need for Improved End-of-Life Care Medical Education: Causes, Consequences, and Strategies for Enhancement and Integration

**Item Type:** Journal Article

**Authors:** Hirani, Rahim;Khuram, Hassan;Elahi, Aria;Maddox, Parker Alan;Pandit, Maya;Issani, Ali and Etienne, Mill

**Publication Date:** 2024

**Journal:** American Journal of Hospice & Palliative Medicine 41(1), pp. 5-7

**Abstract:** End-of-life (EOL) care is a unique area of medicine that emphasizes holistic patient-centered care. It requires clinicians to consider a patients' mental, emotional, spiritual, social and physical comforts and engage patients and their families in complex discussions and decisions. It is an area of medicine that requires sensitivity in communication in order to respond to a wide range of emotions from patients and their families. Given these intricacies, it is essential that healthcare professional trainees are exposed early in their careers so they can be better equipped to address EOL situations effectively. While many medical schools have integrated this important element in pre-clinical education, a formalized and standardized curriculum could allow for students to better engage in EOLcare scenarios that they will face as future physicians. In this editorial, we discuss potential strategies to incorporate EOL care didactics and experiential learning earlier in medical education as well as the consequences of inadequate EOL care education, particularly in medical schools, in its current state. ABSTRACT FROM AUTHOR]; Copyright of American Journal of Hospice & Palliative Medicine is the property of Sage Publications Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use. This abstract may be abridged. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material for the full abstract. (Copyright applies to all Abstracts.)

**DOI:** 10.1177/10499091231161605

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edb&AN=174099383&site=eds-live&custid=ns124082>

## 12. Visual Intelligence Education as a Tool for Enhancing Medical Students' Self-Perception of Communication Skills

**Item Type:** Journal Article

**Authors:** Jammes, Chloé;Ward, Madeleine;Geng, Xue;Burke, Amy and Langley, Julia

**Publication Date:** 2024

**Journal:** Journal of Medical Education & Curricular Development , pp. 1-10

**Abstract:** Objective: Visual arts-based exposure and training are effective tools to enhance medical education. The visual arts can increase emotional intelligence and critical thinking skills. This study, conducted at Georgetown University School of Medicine (GUSoM) and the National Gallery of Art (NGA) in Washington, DC, was designed to measure the effect of a visual arts elective course on medical students' self-perception of their communication skills. Methods: This 6-week course involved lessons at the NGA and GUSoM for 16 second-year medical students. The intervention students were age and gender-matched to 14 second-year medical student control participants who took different elective courses. Prior to and following the intervention, the participants completed the Communication Skills Attitude Scale (CSAS). Statistical analysis was performed with either the 2-sided t-test or 2-sided Wilcoxon rank-sum test. Results: There were no statistically significant differences in the presurvey scores between the groups. However, there were 6 CSAS questions in the postsurveys that had statistically significant differences between the 2 groups. Within each group, there were also numerous statistically significant differences between their presurvey and postsurvey responses, with positive changes occurring in the intervention group (IG) and primarily negative changes occurring in the control group (CG). The NGA course improved the self-perception of communication skills, with students reporting stronger views on the importance of communication skills in teamwork and patient rapport. The CG, on the other hand, did not have as many improved perceptions of communication skills and had stronger opinions regarding not needing the ability to communicate well to be a good physician. Conclusion: This study indicates that medical student communication skills can benefit from exposure to visual arts activities and experiences. Future physicians must become effective communicators, and this study paves the way for research investigating the relationship between visual arts education and the development of a physician's communication skills. ABSTRACT FROM AUTHOR]; Copyright of Journal of Medical Education & Curricular Development is the property of Sage Publications Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use. This abstract may be abridged. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material for the full abstract. (Copyright applies to all Abstracts.)

**DOI:** 10.1177/23821205241231470

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=asx&AN=175542063&site=eds-live&custid=ns124082>

### 13. A comparison of pre- and post-clinical education learning preferences among medical students who elected to dissect compared to those who did not during the COVID-19 pandemic

**Item Type:** Journal Article

**Authors:** Liang, Collin G.;Matsunaga, Masako;Takakusagi, Melia;DeMeo, J.;Thompson, Jesse D.;Rettenmeier, Christoph;Aytaç, Güneş;Lee, U-Y and Lozanoff, Scott

**Publication Date:** 2024

**Journal:** Anatomical Sciences Education 17(2), pp. 396-412

**Abstract:** Anatomy instructional methods varied widely during the COVID-19 pandemic and programs are assessing innovations for retention. Learning preferences were assessed among medical students dichotomized as elective dissectors (ED) or non-dissectors (ND) during the COVID-19 partial re-opening in 2020 (preclinical) and again in 2022 after clinical exposure (post-clinical) to assess the viability of elective dissection post-pandemic. A mixed-method approach was used for the assessment of test scores, learning preference surveys, learning activities rankings, and thematic analyses. No significant differences occurred in anatomy examination scores. Dissection was considered useful by both preclinical groups but significantly more so by ED, while the presence of an instructor was significantly preferred by ED although a majority of ND agreed. Elective dissection was significantly preferred by ND but also by a large minority of ED students. Pre- and post-clinical ND believed that elective dissection offered more academic flexibility, did not hinder clinical learning, and did not negatively impact medical education. The corresponding ED stated that confidence improved, clinical experiences were enhanced, and dissection was irreplaceable. Preclinical ND preferred self-learning, while ED students preferred online learning, but these differences largely disappeared post-clinically. Learning activity rankings were not significantly different among all groups (ND, ED, preclinical, and post-clinical). A hybrid laboratory with a virtual learning environment ranked highest across groups and preferences increased over time suggesting that students benefited from this instructional method during clinical exposure. The absence of laboratory experience ranked lowest, and preference decreased over time suggesting that anatomy dissection is valued. (© 2023 American Association for Anatomy.)

**DOI:** 10.1002/ase.2362

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=cmedm&AN=38053470&site=eds-live&custid=ns124082>

## 14. Assessing Student Leaders' Leadership Styles and Conflict Management

**Item Type:** Journal Article

**Authors:** Ma, Leah Ulanday; Lemellu Nida, L. Samiento; Cereneo jr, S. Santiago and Zarah Jane, R. Centerno

**Publication Date:** 2024

**Journal:** Diversitas Journal 9(1)

**Abstract:** Student leadership gives students the training they need to engage themselves in school-related tasks or concepts, objectives, and aspirations beneficially and constructively. It teaches them how and when to plan an event, manage their schedule, improve their speaking abilities, and lead students. To achieve a target, leadership is a flexible process that calls for collaboration with others in both academic and professional lives. For individuals who are expanding their professional competencies, gaining leadership skills is essential. To enable students to learn their attributes and better prepare them for their careers, leadership qualities and skills should be measured. This study examined the profile in terms of age and sex, leadership styles, and conflict management of student leaders in a state university. A descriptive-correlation research design was employed in the study with undergraduate student leaders of their respective department organizations who enrolled in different courses. (N=70). Results show that majority of student leaders age is between 18- 21 and are dominated by male student leaders. It can also be gleaned that the majority of student leaders possess a democratic leadership style. Democratic leadership approaches have provided leaders the capability of making wise decisions, collaborating with others, and asking pertinent questions to people to handle certain issues. In terms of conflict management, the number one conflict management strategy used by the leaders is accommodating strategy. Moreover, there is no significant relationship between the leadership style of student leaders and conflict management. Regardless of the leadership style of student leaders, it is up to them how they will handle conflict management effectively. Student leaders set the tone for conflict management through their leadership styles.

**DOI:** 10.48017/dj.v9i1.2802

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edsdoj&AN=edsdoj.8bd984b564bc42bcbf651d42c94550ea&site=eds-live&custid=ns124082>

## 15. Informal peer-assisted learning amongst medical students: A qualitative perspective

**Item Type:** Journal Article

**Authors:** Morris, Timothy J.;Collins, Sarah and Hart, Joanne

**Publication Date:** 2024

**Journal:** Clinical Teacher , pp. 1

**Abstract:** Purpose Materials and Methods Results Conclusions Peer-assisted learning (PAL) can occur informally as part of a medical programme and complements the formal curriculum. However, little is known about the mechanisms and processes of how informal peer-assisted learning (IPAL) is enacted. This paper presents data from an ethnographic and semi-structured interview study with Year 1 and 2 undergraduate medical students at a UK university. Peers were observed assisting each other informally: a process that developed as part of the integrated, group-based approach to undergraduate medical education at a UK university. IPAL took place both within and outside of formal teaching sessions and included explanation/clarification of particular points, sharing resources, guiding pronunciation and demonstrating skills. Students placed a high value on IPAL and believed that it was beneficial. When IPAL broke down, this led to negative emotions that presented obstacles to learning, such as resentment. IPAL is an important part of academic support for medical students, and this work shows both its scope, extending from formal to informal teaching, and how it is enacted. This understanding can help educators situate IPAL within student education. ABSTRACT FROM AUTHOR]; Copyright of Clinical Teacher is the property of Wiley-Blackwell and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use. This abstract may be abridged. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material for the full abstract. (Copyright applies to all Abstracts.)

**DOI:** 10.1111/tct.13721

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=asx&AN=174992081&site=eds-live&custid=ns124082>

## 16. Exploring Medical Professionalism amongst Postgraduate Trainees of Bolan Medical Complex Hospital Quetta

**Item Type:** Journal Article

**Authors:** Nabiha, Farasat Khan;Syed, Ahsan Shah;Ilyas, Muhammad;Raz, Muhammad Bazai;Saeed, Muhammad and Saeed, Usama

**Publication Date:** 2024

**Journal:** Proceedings 38(2)

**Abstract:** Introduction: The traditional educational system has concentrated on cognition acquisition and skills essential for physician practice. However, medical educationists are focusing more on good professional doctors now, having a cognitive foundation to work alongside their social roles as a physician-to-be. Aims and Objectives: To assess medical professionalism amongst postgraduate trainees at Bolan Medical Complex Hospital, Quetta. Place and Duration of study: Bolan Medical Complex Hospital, Quetta during February 2024. Material and Methods: A cross-sectional study was conducted to determine



professionalism utilizing a pre-validated questionnaire termed Professionalism Assessment Tool (PAT) from 47 Postgraduates (PGs) of the Neurosurgery, General Medicine, and Psychiatry departments. Data was entered and analyzed using SPSS version 29 was used to calculate frequencies and percentages. The chi-square test was utilized to evaluate the association between professional years and items. A p-value of ? 0.05 is considered significant. Results: All 18 PGs from the psychiatry department, 23/36 (64%) from General Medicine, and all 6 from Neurosurgery filled out the questionnaire. 55.3%(n=25/47) were above 25 years of age, The majority were males (n=31, 66%) and 34% females, 36% (n=17/47) PGs were from 1st year of training. Item no 1 and 5 of Domain I and Domain 3 present the highest percentage score (52.4%) respectively. Highly statistically significant results (p-

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edsdoj&AN=edsdoj.b8d0422cbafe42518d8d8d25fbe37423&site=eds-live&custid=ns124082>

### 17. Assessment of knowledge, attitude, and practice of rational antibiotic use among medical students in a tertiary care teaching hospital of upper Assam -- A cross-sectional study

**Item Type:** Journal Article

**Authors:** Saikia, Anju L.;Saikia, Hiteswar;Borah, Ajoy and Chaliha, Meghali

**Publication Date:** 2024

**Journal:** National Journal of Physiology, Pharmacy & Pharmacology 14(3), pp. 580-586

**DOI:** 10.5455/njppp.2023.13.08408202324082023

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edb&AN=176017556&site=eds-live&custid=ns124082>

### 18. Graduate Medical Education in Pathology: A Scoping Review

**Item Type:** Journal Article

**Authors:** Schmidt, Robert L.;White, Sandra K.;Timme, Kathleen H.;McFarland, Mary M. and Lomo, Lesley C.

**Publication Date:** 2024

**Journal:** Archives of Pathology & Laboratory Medicine 148(1), pp. 117

**Abstract:** Medical residency programs are charged with certifying physicians' competency to safely practice independently after graduation through the provision of graduate medical education (GME). Ensuring that medical trainees successfully acquire specialty-specific ...]; \* Context.--Pathologists have produced a substantial body of literature on graduate medical education (GME). However, this body of literature is diverse and has not yet been characterized. Objective.--To chart the concepts, research methods, and publication patterns of studies on GME in pathology. Data Sources.--This was a systematic scoping review covering all literature produced since 1980 in the PubMed and Embase databases. Conclusions.--Research on GME in pathology is evenly dispersed across educational topics. This body of literature would benefit from research based on theory, stronger study designs, and studies that can provide evidence to support decisions on educational policies. doi: 10.5858/arpa.2022-0365-RA

**DOI:** 10.5858/arpa.2022-0365-RA

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edsgih&AN=edsgcl.782528740&site=eds-live&custid=ns124082>

**19. Are we teaching the health impacts of climate change in a clinically relevant way? A systematic narrative review of biomechanism-focused climate change learning outcomes in medical curricula**

Item Type: Journal Article

Authors: Sharma, Atul;Smyth, Lillian;Jian, Holly;Vargas, Nicole;Bowles, Devin and Hunter, Arnagretta

Publication Date: 2024

Journal: Medical Teacher 46(3), pp. 414-422

**Abstract:** Introducing biomedical approaches to the health impacts of climate change can improve medical student engagement with relevant climate-related issues, improve the development of medical schemas, and minimise displacement into crowded medical curricula. This paper aims to systematically review the medical education curricula related to climate change, with a particular focus on systems-based biomechanisms for the health impacts of climate change. We do this to provide a clear agenda for further development of learning outcomes (LOs) in this area to maximize the clinical applicability of this knowledge. A systematic review was undertaken following Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA; Liberati et al. 2009) guidelines for both the published and grey literature. Five databases (PubMed, SCOPUS, ERIC, Open Access Thesis and Dissertation, and Proquest Global Dissertation and Theses) were searched for works published between 2011 and June 2023. Full texts that contained LOs were the main inclusion criteria for the final review. Descriptive and content extraction guided the final narrative synthesis. Analysis indicated that biomechanism-related LOs represented about 25% of each published LO set, on average. These outcomes were primarily at the "understand" level of Bloom's taxonomy and were spread across a range of body systems and climate-change aspects. Infectious diseases and extreme heat were strong focuses. Authorship analysis indicated that the majority of these sets of published LOs are from Western contexts and authored by researchers and educators with medical and population health qualifications. Biomechanism-focused teaching about the health impacts of climate change is relatively rare in published curricula. Of the available sets of LOs, the majority are sourced from Western authors and are focused on a fairly circumscribed set of biomedical topics. There is scope to both broaden and deepen curriculum in this area, and we would recommend the field prioritise collaboration with medical educators from the Global South, where the effects of climate change are already the most acutely felt.

DOI: 10.1080/0142159X.2023.2256963

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=cin20&AN=175643329&site=eds-live&custid=ns124082>

## 20. Artificial intelligence and medical education: application in classroom instruction and student assessment using a pharmacology & therapeutics case study

Item Type: Journal Article

Authors: Sridharan, Kannan and Sequeira, Reginald P.

Publication Date: 2024

Journal: BMC Medical Education 24(1), pp. 1-13

**Abstract:** Abstract Background Artificial intelligence (AI) tools are designed to create or generate content from their trained parameters using an online conversational interface. AI has opened new avenues in redefining the role boundaries of teachers and learners and has the potential to impact the teaching-learning process. Methods In this descriptive proof-of- concept cross-sectional study we have explored the application of three generative AI tools on drug treatment of hypertension theme to generate: (1) specific learning outcomes (SLOs); (2) test items (MCQs- A type and case cluster; SAQs; OSPE); (3) test standard-setting parameters for medical students. Results Analysis of AI-generated output showed profound homology but divergence in quality and responsiveness to refining search queries. The SLOs identified key domains of antihypertensive pharmacology and therapeutics relevant to stages of the medical program, stated with appropriate action verbs as per Bloom's taxonomy. Test items often had clinical vignettes aligned with the key domain stated in search queries. Some test items related to A-type MCQs had construction defects, multiple correct answers, and dubious appropriateness to the learner's stage. ChatGPT generated explanations for test items, this enhancing usefulness to support self-study by learners. Integrated case-cluster items had focused clinical case description vignettes, integration across disciplines, and targeted higher levels of competencies. The response of AI tools on standard-setting varied. Individual questions for each SAQ clinical scenario were mostly open-ended. The AI-generated OSPE test items were appropriate for the learner's stage and identified relevant pharmacotherapeutic issues. The model answers supplied for both SAQs and OSPEs can aid course instructors in planning classroom lessons, identifying suitable instructional methods, establishing rubrics for grading, and for learners as a study guide. Key lessons learnt for improving AI-generated test item quality are outlined. Conclusions AI tools are useful adjuncts to plan instructional methods, identify themes for test blueprinting, generate test items, and guide test standard-setting appropriate to learners' stage in the medical program. However, experts need to review the content validity of AI-generated output. We expect AIs to influence the medical education landscape to empower learners, and to align competencies with curriculum implementation. AI literacy is an essential competency for health professionals.

DOI: 10.1186/s12909-024-05365-7

URL: <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edsdoj&AN=edsdoj.527d6b6cd7f54d17a8227d6ae889c5b2&site=eds-live&custid=ns124082>

## 21. In what ways will AI enhance psychometric testing in the workplace?

**Item Type:** Journal Article

**Authors:** Herbert, Niamh

**Publication Date:** 2024

**Journal:** Assessment & Development Matters 16(1), pp. 24-28

**Abstract:** Key digested message This article explores how Artificial Intelligence (AI) can enhance psychometric testing in the workplace. By leveraging natural language processing, machine learning algorithms, and data analytics, AI-driven psychometric testing offers greater efficiency, accuracy, and fairness. It discusses the potential of AI to revolutionise traditional testing methods and highlights its benefits for candidate selection, talent management, and employee development. ABSTRACT FROM AUTHOR]; Copyright of Assessment & Development Matters is the property of British Psychological Society and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use. This abstract may be abridged. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material for the full abstract. (Copyright applies to all Abstracts.)

**DOI:** 10.53841/bpsadm.2024.16.1.24

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=asx&AN=175525231&site=eds-live&custid=ns124082>

## 22. Assessing Student Leaders' Leadership Styles and Conflict Management

**Item Type:** Journal Article

**Authors:** Ulanday, Ma Leah;Samiento, Lemellu Nida L.;Santiago jr., Cereneo S. and Centerno, Zarah Jane R.

**Publication Date:** jan ,2024

**Journal:** Diversitas Journal 9(1), pp. 509-517

**Abstract:** Student leadership gives students the training they need to engage themselves in school-related tasks or concepts, objectives, and aspirations beneficially and constructively. It teaches them how and when to plan an event, manage their schedule, improve their speaking abilities, and lead students. To achieve a target, leadership is a flexible process that calls for collaboration with others in both academic and professional lives. For individuals who are expanding their professional competencies, gaining leadership skills is essential. To enable students to learn their attributes and better prepare them for their careers, leadership qualities and skills should be measured. This study examined the profile in terms of age and sex, leadership styles, and conflict management of student leaders in a state university. A descriptive-correlation research design was employed in the study with undergraduate student leaders of their respective department organizations who enrolled in different courses. (N=70). Results show that majority of student leaders age is between 18- 21 and are dominated by male student leaders. It can also be gleaned that the majority of student leaders possess a democratic leadership style. Democratic leadership approaches have provided leaders the capability of making wise decisions, collaborating with others, and

asking pertinent questions to people to handle certain issues. In terms of conflict management, the number one conflict management strategy used by the leaders is accommodating strategy. Moreover, there is no significant relationship between the leadership style of student leaders and conflict management. Regardless of the leadership style of student leaders, it is up to them how they will handle conflict management effectively. Student leaders set the tone for conflict management through their leadership styles. (English) ABSTRACT FROM AUTHOR]; A liderança estudantil dá aos alunos o treinamento necessário para se envolverem em tarefas ou conceitos, objetivos e aspirações relacionados à escola de forma benéfica e construtiva. Ele os ensina como e quando planejar um evento, gerenciar sua agenda, melhorar suas habilidades orais e liderar os alunos. Para atingir uma meta, a liderança é um processo flexível que exige a colaboração com outras pessoas, tanto na vida acadêmica quanto na profissional. Para indivíduos que estão expandindo suas competências profissionais, adquirir habilidades de liderança é essencial. Para permitir que os alunos aprendam os seus atributos e os preparem melhor para as suas carreiras, as qualidades e competências de liderança devem ser medidas. Este estudo examinou o perfil em termos de idade e sexo, estilos de liderança e gestão de conflitos de líderes estudantis em uma universidade estadual. Um desenho de pesquisa de correlação descritiva foi empregado no estudo com líderes de estudantes de graduação de suas respectivas organizações departamentais que se matricularam em diferentes cursos. (N=70). Os resultados mostram que a maioria dos líderes estudantis tem entre 18 e 21 anos e é dominada por líderes estudantis do sexo masculino. Também pode ser constatado que a maioria dos líderes estudantis possui um estilo de liderança democrático. As abordagens de liderança democrática proporcionaram aos líderes a capacidade de tomar decisões sábias, colaborar com outros e fazer perguntas pertinentes às pessoas para lidar com determinadas questões. Em termos de gestão de conflitos, a estratégia de gestão de conflitos número um utilizada pelos líderes é a estratégia de acomodação. Além disso, não existe uma relação significativa entre o estilo de liderança dos líderes estudantis e a gestão de conflitos. Independentemente do estilo de liderança dos líderes estudantis, cabe a eles como irão lidar eficazmente com a gestão de conflitos. Os líderes estudantis dão o tom para a gestão de conflitos através dos seus estilos de liderança. (Portuguese) ABSTRACT FROM AUTHOR]; Copyright of Diversitas Journal is the property of Diversitas Journal and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use. This abstract may be abridged. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material for the full abstract. (Copyright applies to all Abstracts.)

**DOI:** 10.48017/dj.v9i1.2802

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edb&AN=176815548&site=eds-live&custid=ns124082>

### 23. Enhancing self-care education amongst medical students: a systematic scoping review

**Item Type:** Journal Article

**Authors:** Wan, Darius Wei Jun;Goh, Laura Shih Hui;Teo, Mac Yu Kai;Loh, Celestine Jia Ling;Yak, Gerald Hng Kai;Lee, Joanna Jing Hui;Ravindran, Nila;Abdul Rahman, Nur Diana;Chiam, Min;Ong, Eng Koon;Somasundaram, Nagavalli;Lim, Ying Yin;Phua, Gillian Li Gek and Krishna, Lalit Kumar Radha

**Publication Date:** 2024

**Journal:** BMC Medical Education 24(1)

**Abstract:** Background Reports of emotional, existential and moral distress amongst medical students witnessing death and suffering of patients during their clinical postings have raised awareness on the need for better psycho-emotional support during medical school. Furthermore, the stress experienced by

medical students stemming from the rigours of their academic curriculum underlines the need for greater awareness on mental health issues and better self-care practices across medical training. With such programmes lacking in most medical schools, we propose a systematic scoping review (SSR) to map and address our research question, "what is known about self-care education interventions amongst medical students?".

**Methods** We adopted the Systematic Evidence-Based Approach to guide a systematic scoping review (SSR in SEBA) of relevant articles published between 1st January 2000 and 30th June 2023 in PubMed, Embase, PsycINFO, ERIC, Google Scholar, and Scopus databases. The included articles were independently and concurrently thematically and content analysed, with complementary categories and themes combined using the Jigsaw Approach. The domains created from the Funnelling Process framed the discussion.

**Results** A total of 6128 abstracts were identified, 429 full-text articles evaluated, and 147 articles included. The 6 domains identified were definition, topics, pedagogy, influences, outcomes and assessment. Most interventions were promising, though peer-led mindfulness-based interventions showed most promise in enhancing engagement, positively impacting personal wellbeing, and improving patient care. Overall, however, self-care education was poorly recognized, adopted and integrated into curricula.

**Conclusion** Greater dedicated time and conducive practice environments within medical school curricula is required to enhance medical student wellbeing. Host organizations must ensure faculty are appropriately selected to instil the importance of self-care, be trained to assess and personalize self-care interventions and provide longitudinal assessment and support. Further study into assessing self-care capabilities is required.

**Keywords:** Self-care, Medicine, Medical education, Medical students, Palliative care; Author(s): Darius Wei Jun Wansup.1,2] , Laura Shih Hui Gohsup.1,2] , Mac Yu Kai Teosup.1,2] , Celestine Jia Ling Lohsup.3,4] , Gerald Hng Kai Yaksup.1,2] , Joanna Jing Hui Leesup.1,2] ...]

**DOI:** 10.1186/s12909-023-04965-z

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edsgih&AN=edsgcl.778819603&site=eds-live&custid=ns124082>

## **24. Application of artificial intelligence in medical education: A review of benefits, challenges, and solutions**

Item Type: Journal Article

Authors: Zarei, Mahdi;Hamid, Eftekhari Mamaghani;Abbasi, Amin and Mohammad-Salar Hosseini

Publication Date: 2024

Journal: Medicina Clínica Práctica 7(2)

**Abstract:** Introduction/objectives: Artificial intelligence (AI) holds indisputable potential in solving global challenges faced in healthcare provision, resulting in its ever-increasing utilization in various medical fields. This review aims to present a thorough evaluation of the advantages, challenges, and leading strategies for utilizing AI in the field of medical education. Methods: In order to access the latest studies and documents, a comprehensive literature search was conducted in Medline (via PubMed), Scopus, and Web of Science databases, using free keywords and MeSH terms representing artificial intelligence, medical education, curriculum, medical student, and their equivalents, without any restriction in time and language, until October 2023. Results: The expanding integration of AI into medical practice, especially in recent decades, has also led to an increase in the use of different AI methods in medical education. However, integrating AI into medical education comes with advantages and obstacles. The advantages include objective student assessment, better clinical simulation organization, and enhanced education transparency. Conversely, the main challenges of AI integration in education are ethical and legal issues, scalability limitations, evaluating the effectiveness of these educational methods, and technical difficulties. Conclusions: Further research is needed to specifically identify the potential benefits and challenges, and analyze the proposed solutions

for these challenges. Also, the academic curriculum should be evaluated periodically in order to improve the effectiveness of incorporating AI in medical education. Resumen: Introducción/objetivos: La inteligencia artificial (IA) tiene un potencial indiscutible para resolver los desafíos globales que enfrentan en la prestación de servicios de salud, lo que resulta en su utilización cada vez mayor en diversos campos médicos. Esta revisión tiene como objetivo presentar una evaluación exhaustiva de las ventajas, los desafíos y las estrategias líderes para utilizar la IA en el campo de la educación médica. Métodos: Para acceder a los estudios y documentos más recientes, se realizó una búsqueda bibliográfica exhaustiva en las bases de datos Medline (a través de PubMed), Scopus y Web of Science, utilizando palabras clave gratuitas y términos MeSH que representan inteligencia artificial, educación médica, plan de estudios y estudiantes de medicina, y sus equivalentes, sin restricción alguna de tiempo e idioma, hasta octubre de 2023. Resultados: La creciente integración de la IA en la práctica médica, especialmente en las últimas décadas, también ha llevado a un aumento en el uso de diferentes métodos de IA en la educación médica. Sin embargo, integrar la IA en la educación médica conlleva ventajas y obstáculos. Las ventajas incluyen evaluación objetiva de los estudiantes, mejor organización de la simulación clínica y mayor transparencia educativa. Por el contrario, los principales desafíos de la integración de la IA en la educación son cuestiones éticas y legales, limitaciones de escalabilidad, evaluación de la efectividad de estos métodos educativos y dificultades técnicas. Conclusiones: Se necesita más investigación para identificar específicamente los beneficios y desafíos potenciales, y analizar las soluciones propuestas para estos desafíos. Además, el currículo académico debe evaluarse periódicamente para mejorar la eficacia de la incorporación de la IA en la educación médica.

DOI: 10.1016/j.mcpsp.2023.100422

URL: <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edsdoj&AN=edsdoj.4895891b1cb44317b922713c073b2ee7&site=eds-live&custid=ns124082>

## 25. Physical activity and mental health of medical students

**Item Type:** Journal Article

**Authors:** Stratakis, Konstantinos;Terzić-Šupić, Zorica;Todorović, Jovana;Nešić, Dejan and Novaković, Ivana

**Publication Date:** 2024

**Journal:** Central European Journal of Public Health 32(1), pp. 39-44

**Abstract:** Objective: Medical students usually do not meet the recommendations on the minimum level of physical activity, despite knowing the impact that physical activity has on the prevention and treatment of various diseases. Medical students are considered to be insufficiently physically active. The aim of this study is to determine the prevalence of physically active fifth-year medical students at five universities in Serbia, as well as to identify factors associated with insufficient physical activity of students.; Methods: A cross-sectional study was performed in the population of fifth-year medical students from five different universities in Serbia. The research instrument was a questionnaire specially designed based on similar research. Descriptive and analytical statistics methods were used in statistical analysis.; Results: The study included a total of 573 fifth-year medical students from five universities in Serbia: 311 (54.3%) Belgrade; 86 (15.0%) Kragujevac; 58 (10.1%) Nis; 66 (11.5%) Kosovska Mitrovica; 52 (9.1%) Novi Sad. Insufficient physical activity was statistically significantly associated with studying at the University of Kosovska Mitrovica (OR = 3.98, 95% CI: 1.83-8.57). There was a statistically significant difference in the frequency of anti-anxiety medications use in the last 12 months between students with sufficient and insufficient physical activity ( $p = 0.040$ ) as well as in the average number of cigarettes smoked per day between students with sufficient and those with insufficient physical activity ( $2.82 \pm 6.35$  vs.  $4.50 \pm 8.29$ ,  $p = 0.043$ ). There was also a

statistically significant difference in the average score on the Beck's depression scale between students with sufficient and students with insufficient physical activity ( $6.51 \pm 6.59$  vs.  $10.03 \pm 9.37$ ,  $p < 0.001$ ) and in the average score on Zung's anxiety scale ( $34.86 \pm 8.18$  vs.  $38.07 \pm 8.71$ ,  $p = 0.003$ ).; Conclusion: A high percentage of medical faculty students (86.6%) are physically active. Differences in the level of physical activity were observed between students of these five universities as well as between students with different levels of physical activity.

DOI: 10.21101/cejph.a8097

URL: <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=cmedm&AN=38669156&site=eds-live&custid=ns124082>

## 26. Revolutionizing Medical Education: Can ChatGPT Boost Subjective Learning and Expression?

Item Type: Journal Article

Authors: Seetharaman, Rajmohan

Publication Date: 2023

Journal: Journal of Medical Systems 47(1), pp. 1-4

Abstract: ChatGPT is an AI tool that can be used to enhance medical education by helping students develop subjective learning and expression skills. These skills are critical in clinical practice, but the current medical education system is heavily focused on objective assessments, such as Multiple Choice Questions (MCQs). Students from non-English speaking backgrounds can particularly struggle with expressing themselves in English, which is the primary language of instruction in many medical schools worldwide. ChatGPT can provide additional language support for these students to help them develop their language skills and communicate effectively. ChatGPT can be used in small group assessments to serve as a benchmark for students to strive for in their medical education. By comparing their answers to ChatGPT's responses, students can identify gaps in their knowledge and work to fill them. ChatGPT can also provide students with feedback on their writing style and language usage, helping them to improve their subjective expression of medical knowledge. Furthermore, ChatGPT can be used to simulate patient encounters for medical students. By interacting with ChatGPT, students can practice taking medical histories and documenting symptoms accurately. In continuing medical education (CME) programs, physicians can also benefit from ChatGPT's capabilities. By using ChatGPT to search for the latest research articles, clinical trials, and treatment guidelines, physicians can stay informed and provide the best care possible to their patients. Overall, ChatGPT has the potential to be a valuable tool in medical education by helping students and physicians develop the essential skills required for clinical practice, such as communication, problem-solving, and critical thinking. ABSTRACT FROM AUTHOR]; Copyright of Journal of Medical Systems is the property of Springer Nature and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use. This abstract may be abridged. No warranty is given about the accuracy of



the copy. Users should refer to the original published version of the material for the full abstract.  
(Copyright applies to all Abstracts.)

DOI: 10.1007/s10916-023-01957-w

URL: <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=edb&AN=163643196&site=eds-live&custid=ns124082>

## 27. A systematic review of large language models and their implications in medical education

**Item Type:** Journal Article

**Authors:** Lucas, Harrison C.;Upperman, Jeffrey S. and Robinson, Jamie R.

**Publication Date:** 2024

**Journal:** Medical Education , pp. 1

**Abstract:** Introduction Methods Results Conclusions In the past year, the use of large language models (LLMs) has generated significant interest and excitement because of their potential to revolutionise various fields, including medical education for aspiring physicians. Although medical students undergo a demanding educational process to become competent health care professionals, the emergence of LLMs presents a promising solution to challenges like information overload, time constraints and pressure on clinical educators. However, integrating LLMs into medical education raises critical concerns and challenges for educators, professionals and students. This systematic review aims to explore LLM applications in medical education, specifically their impact on medical students' learning experiences. A systematic search was performed in PubMed, Web of Science and Embase for articles discussing the applications of LLMs in medical education using selected keywords related to LLMs and medical education, from the time of ChatGPT's debut until February 2024. Only articles available in full text or English were reviewed. The credibility of each study was critically appraised by two independent reviewers. The systematic review identified 166 studies, of which 40 were found by review to be relevant to the study. Among the 40 relevant studies, key themes included LLM capabilities, benefits such as personalised learning and challenges regarding content accuracy. Importantly, 42.5% of these studies specifically evaluated LLMs in a novel way, including ChatGPT, in contexts such as medical exams and clinical/biomedical information, highlighting their potential in replicating human-level performance in medical knowledge. The remaining studies broadly discussed the prospective role of LLMs in medical education, reflecting a keen interest in their future potential despite current constraints. The responsible implementation of LLMs in medical education offers a promising opportunity to enhance learning experiences. However, ensuring information accuracy, emphasising skill-building and maintaining ethical safeguards are crucial. Continuous critical evaluation and interdisciplinary collaboration are essential for the appropriate integration of LLMs in

medical education. ABSTRACT FROM AUTHOR]; Copyright of Medical Education is the property of Wiley-Blackwell and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use. This abstract may be abridged. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material for the full abstract. (Copyright applies to all Abstracts.)

**DOI:** 10.1111/medu.15402

**URL:** <https://search.ebscohost.com/login.aspx?direct=true&AuthType=sso&db=asx&AN=176665382&site=eds-live&custid=ns124082>

*You will need your [NHS OpenAthens account](#) to access the full text of licenced content.  
This service is provided to the NHS in England by NHSE Workforce, Training & Education.*

Resources

## BMJ Best Practice/BMJ Best practice Comorbidities tool

The BMJ Best Practice Comorbidities tool is now available within [BMJ Best Practice](#).



This tool supports the management of the whole patient by including guidance on the treatment of a patient's acute condition alongside their pre-existing Comorbidities.

Access is **free for all NHS staff and learners**, courtesy of NHS Health Education England.

NHS OpenAthens log-in required (register [here](#))

## BMJ Case Reports

[Click here](#) to access the latest case reports providing general guidance on prescribing.

An NHS OpenAthens log-in is required for access required, register [here](#).

Mid Yorkshire Hospitals NHS Trust staff and placement students can **publish their case reports for free**, please ask the library team for the institutional fellowship code.

**Keep up to date with personalised evidence updates! (Mid Yorkshire staff only)**



For busy healthcare/health management professionals who want to keep up to date with the latest evidence the answer is KnowledgeShare!

To receive regular emailed evidence and knowledge updates tailored to your area(s) of interest, please complete a KnowledgeShare registration form (available under 'register for KnowledgeShare' on our [webpage](#)). The library team will do the rest.

You can amend your interests at any time. Alerts are sent fortnightly by default, but you can