

the relationship between traditions and innovations in pedagogical activity; the axiological significance of traditions and innovations, and their dialectical unity as a condition for the modernization of education.

Emphasizing the continuity and uninterrupted nature of pedagogical traditions in the formation of professional culture for future teachers from early modern times to the present, we speak about the continuity of the pedagogical profession, the preservation of its moral foundations, the cultivation of an exceptionally positive attitude towards pedagogical heritage, and the formation of a holistic vision of the educational process and the development of pedagogical thinking.

Keywords: *pedagogical traditions, professional culture, pedagogical heritage, pedagogical training.*

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EXPLORING ACADEMIC MOBILITY IN MEDICAL EDUCATION: CHALLENGES, OPPORTUNITIES, AND HYBRID MODELS FOR GLOBAL LEARNING

Academic mobility in medical education offers significant benefits by providing students with global exposure, diverse learning environments, and networking opportunities. These experiences not only enhance students' clinical competencies but also foster cultural competence and broaden their understanding of global health issues. This article categorizes academic mobility into two primary types: physical mobility, where students travel abroad to participate in academic or clinical programs, and virtual mobility, which leverages digital learning platforms to engage students in global education without the need for physical travel. Both types of mobility contribute to enriching medical education, enabling students to gain hands-on experience in different healthcare systems and medical practices worldwide.

While academic mobility offers numerous advantages, it also presents challenges such as language barriers, financial constraints, and issues with the recognition of qualifications. Additionally, the increasing reliance on virtual mobility due to disruptions like the COVID-19 pandemic highlights the evolving nature of global education. Programs such as Erasmus+, Fulbright, and Global Health initiatives have played a pivotal role in facilitating student exchanges, particularly in response to global crises, ensuring continuity in education and fostering international collaborations. This article also explores the importance of a blended approach that combines both physical and virtual mobility to create flexible, resilient, and accessible learning experiences for medical students.

Future investigations are crucial to address existing barriers and optimize the integration of virtual mobility into traditional programs. Research should explore the long-term impact of mobility on career development, employability, and professional growth. By focusing on these areas, academic mobility programs can better prepare future medical professionals to navigate diverse healthcare settings and address global health challenges.

Keywords: *academic mobility, medical education, medical student, healthcare, cultural competence, mobility programs, electives, global challenges.*

(статтю подано мовою оригіналу)

Academic mobility has emerged as a fundamental aspect of contemporary medical education, facilitating the exchange of knowledge, skills, and cultural competencies among medical students on a global scale. Defined as the temporary relocation of students across institutions, regions, or countries for educational purposes, academic mobility plays a critical role in the development of future healthcare professionals. By engaging in mobility programs such as international exchanges, clinical clerkships, and research collaborations, medical students gain exposure to diverse healthcare systems, advanced medical technologies, and varied approaches to patient care. Academic mobility in medical education refers to the movement of students across different institutions, regions, or countries for educational purposes. This typically occurs through exchange programs, allowing students to experience new academic environments, enhance their learning, and develop a global perspective. Mobility can be short-term or long-term, involving study abroad programs, clinical rotations, or virtual exchanges.

Participation in academic mobility programs contributes significantly to the professional and personal development of medical students. Exposure to different medical curricula and healthcare environments fosters adaptability, enhances clinical reasoning, and broadens students' understanding of global health challenges. Furthermore, cross-cultural interactions strengthen essential competencies such as communication, teamwork, and ethical decision-making, all of which are indispensable in an increasingly interconnected world. Additionally, academic mobility facilitates the formation of professional networks, promoting international collaboration in research and clinical practice.

To examine the role of academic mobility in medical education, analyzing its benefits, challenges, and implications for the development of globally competent healthcare professionals.

Numerous researchers have explored academic mobility in medical education, offering valuable insights into its significance, benefits, and associated challenges. David A. Asch, Andrew Epstein, and Sean Nicholson explored how medical training programs can be assessed based on the quality of care provided by their alumni. The study also implies that medical training programs have long-term effects on the care alumni deliver, which could be influenced by academic mobility. If alumni from certain institutions move to practice in different settings, their experiences in various healthcare environments can either enhance or challenge the care standards they bring. The study suggests that assessing these outcomes could be a valuable metric for evaluating the success of medical training programs. This form of academic mobility – where medical professionals move across institutions or regions – can therefore have a direct impact on healthcare quality, and understanding this dynamic is essential when analyzing the broader outcomes of medical education [1].

Researchers Jessica Jeffrey, Rebecca A. Dumont, Gloria Y. Kim, and Tony Kuo investigate the influence of international health electives on the academic development and career trajectories of medical students. The review synthesizes existing literature to explore how these electives contribute to students' knowledge,

skills, and attitudes towards global health issues, while also assessing their long-term professional outcomes, particularly in terms of specialty choice and interest in underserved areas. One of the key findings highlighted in the review is that international health electives offer students valuable exposure to diverse healthcare systems, fostering a broader understanding of global health challenges. Students who participate in these electives report increased cultural competence and a deeper understanding of health disparities, which are often underrepresented in domestic medical training. This exposure to diverse patient populations and health issues can enhance students' clinical skills and broaden their medical perspectives, making them more adaptable and effective as healthcare providers. Overall, the systematic review by Jeffrey, Dumont, Kim, and Kuo highlights the multifaceted benefits of international health electives. They not only enrich medical education but also play a crucial role in shaping future healthcare professionals who are equipped to address both local and global health challenges. By fostering academic mobility and cross-cultural learning, these electives contribute to the development of a more globally minded and socially responsible medical workforce [4].

Experiencing healthcare in a different cultural and geographical setting is a common focus of elective placements. These opportunities allow learners to encounter a diverse range of diseases and pathologies, enhance clinical skills, and gain practical experience. International public health exposure can also be valuable, with organizations such as the World Health Organization supporting many elective placements. Additionally, these experiences provide insight into healthcare management models that differ from those in the learners' home training environments. Traveling to countries without state-provided healthcare encourages reflection on the advantages and disadvantages of different healthcare systems and access to medical services. Gaining an understanding of various healthcare systems and managing conditions not typically encountered at home are among the primary educational objectives of such electives [2]. Global health experiences play a key role in fostering cultural competence. Increased awareness of global health challenges benefits both learners and educational institutions. Collaborative initiatives offer societal advantages by engaging the public and patients in healthcare-related issues while also contributing to the growth and development of educational institutions [6].

Many students who participate in such programs express a heightened interest in pursuing specialties related to global health, such as public health, infectious disease, or primary care in underserved areas. This shift is often driven by the experiences gained during their international elective, which may spark a long-term commitment to working in resource-limited settings or addressing health inequities both locally and globally. Challenges associated with international health electives include the necessity of careful planning to ensure ethical integrity and meaningful student engagement. Increasing emphasis is being placed on structuring these experiences to not only benefit students but also support host countries' health systems in a sustainable and mutually beneficial manner. As a result, more structured programs are being advocated, integrating international electives with

curricula that emphasize social responsibility and health equity. International health electives present challenges that require careful planning to ensure ethical integrity and meaningful engagement. These experiences should not only enhance learning but also contribute positively to host countries' health systems in a sustainable and mutually beneficial way. To achieve this, more structured programs are needed, integrating international electives with curricula that emphasize social responsibility and health equity.

Scientist Ulrich Teichler examines the complexities of academic mobility and migration, highlighting significant gaps in data and understanding. The study identifies various forms of mobility, including pre-study migration, short-term and full-degree student mobility, doctoral and professional mobility, and short-term academic visits. It underscores the lack of standardized patterns across countries and questions the widely assumed career benefits of international experience. Teichler calls for more comprehensive data collection to better inform policies that support academic internationalization [7].

Discussion. Academic mobility provides several key advantages, including: *global exposure* – students gain insights into different healthcare systems, medical practices, and public health approaches worldwide; *diverse learning environments* – exposure to various teaching methods, healthcare technologies, and clinical settings enriches learning experiences; *networking opportunities* – mobility programs foster professional connections with peers, mentors, and international experts in the medical field; *cultural competence* – by immersing themselves in different cultures, students develop a better understanding of patient diversity and cross-cultural communication; *enhanced career prospects* – international experience can boost students' resumes, making them more competitive in the job market.

Academic mobility in medical education can be categorized into two main types:

1. Physical Mobility involves students traveling to another country or institution to participate in academic or clinical programs. It includes: **study abroad** – medical students attend lectures, laboratory sessions, and participate in academic programs in foreign universities; **clinical rotations** – students undergo hands-on medical training in hospitals or healthcare institutions in different countries, exposing them to various patient demographics and medical conditions.

2. Virtual Mobility in which students can engage in global medical education without physically traveling with the advancement of digital learning. Virtual mobility includes: **online courses** – students enroll in medical courses offered by international institutions, often involving lectures, assignments, and assessments; **remote collaborations** – students engage in research, case studies, and medical discussions with peers and professors from other countries through virtual platforms.

Researchers Tamilla Mammadova and Todd J. Allen explore the evolving nature of international academic mobility, particularly in the context of study abroad

programs. They highlight the growth of opportunities and the challenges faced by universities and administrators in adapting these programs to meet the changing needs of students. The rise of virtual mobility, especially in response to disruptions like the COVID-19 pandemic, and the integration of virtual elements in traditional programs have also been discussed. The authors stress the importance of understanding the roles of program coordinators and administrators in facilitating both physical and virtual mobility. They advocate for a blended approach, combining traditional and virtual mobility options to create flexible, accessible, and resilient study abroad experiences for students [5].

Despite its many advantages, academic mobility also comes with several challenges, such as: *language barriers* – students may struggle to understand lectures, communicate with patients, or interact with peers in a foreign language; *recognition of qualifications* – some institutions may not recognize credits earned abroad, making it difficult to transfer coursework; *financial constraints* – the costs of travel, tuition, and living expenses can be a significant barrier for students seeking mobility opportunities; *cultural differences* – adjusting to new cultural norms, traditions, and social behaviors can be challenging for students; *visa regulations* – obtaining visas and necessary permits can be time-consuming and complex, depending on the destination country.

Several international programs facilitate academic mobility for medical students, including:

- *Erasmus+ (Europe)* – A well-known European Union program supporting students to study and train abroad;

- *Fulbright Program (USA)* – A prestigious scholarship program that offers funding for students to study and conduct research abroad;

- *Global Health Programs* – Initiatives that allow medical students to gain experience in international healthcare systems, often focusing on public health and underserved communities;

- *International Medical Education Exchange (IMEE)* – A program that promotes cross-border collaboration in medical education and training.

The Erasmus+ program plays a crucial role in supporting individuals and communities facing unprecedented challenges, particularly those impacted by the war in Ukraine. In addition to facilitating the continuation of studies disrupted by the conflict, these initiatives promote incoming learning mobility, enhance skill development, combat disinformation, and foster the integration of refugees. Beyond providing education and training opportunities and addressing societal challenges, these projects generate meaningful and lasting impacts on individuals affected by the war in Ukraine. They demonstrate how education, collaboration, and solidarity can contribute to transformative change and improve lives [3].

Three years after the onset of the war, the Erasmus+ Program remains steadfast in its support for Ukraine, ensuring the continuity of education for Ukrainian students, educators, and institutions. By facilitating mobility opportunities, providing educational resources, and fostering international cooperation projects,

Erasmus+ plays a crucial role in maintaining and strengthening Ukraine's educational system during this period of crisis.

One of the most impactful initiatives supporting Ukrainian medical students is the University of Tartu's assistance program. In response to the disruption caused by the war, the university welcomed students from Lviv, Kharkiv, Kyiv, Sumy, and Vinnytsia, providing them with Erasmus+ grants and intensive Estonian language courses to facilitate their integration and academic progress. This initiative enabled students to resume their medical education in Estonia, ensuring continuity in their training despite the ongoing crisis. Through scholarships, access to learning materials, virtual exchanges, and new institutional partnerships, Erasmus+ remains a cornerstone of European solidarity with Ukraine. In times of crisis, education serves as a vital lifeline, and thanks to Erasmus+, learning continues even in the most challenging circumstance.

Various organizations contribute to academic mobility in medical education, such as: *Medical Schools, Universities* – academic institutions establish agreements with international partners to promote student exchange, universities and colleges facilitate exchange programs, partnerships, and international collaborations; *Health Organizations* – global health institutions support mobility programs, particularly in underserved areas; *government agencies* – many governments fund scholarships and programs that enable medical students to study abroad.

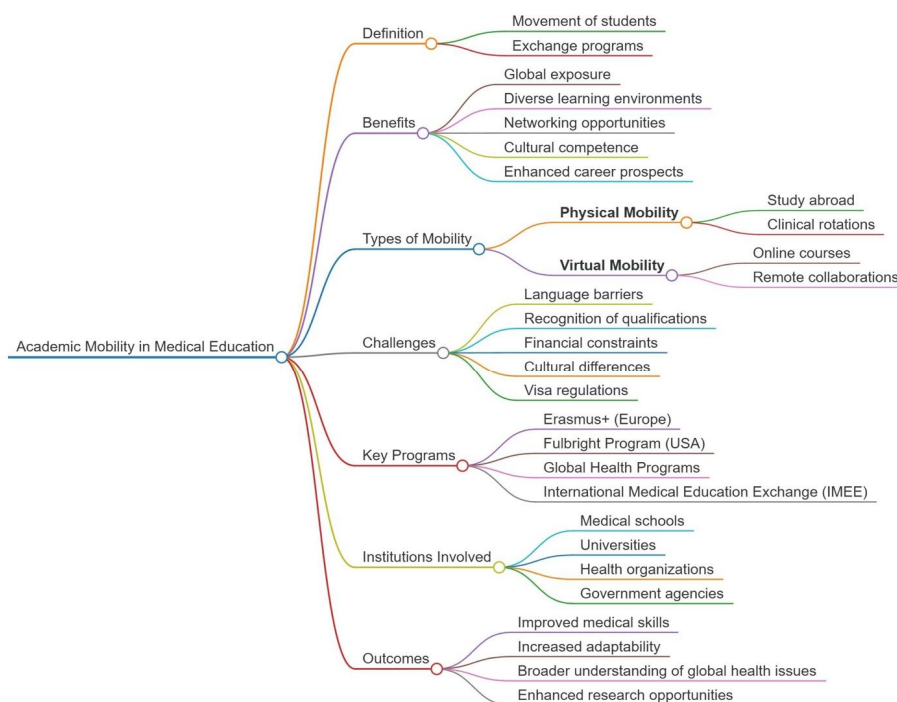


Fig. 1. Academic mobility in medical education

Thus, participating in academic mobility programs leads to several positive outcomes: *improved medical skills* – exposure to different medical practices

enhances clinical competencies and diagnostic skills; *increased adaptability* – Students develop resilience and adaptability by learning to navigate new environments and healthcare systems; *broader understanding of global health issues* – mobility programs help students understand healthcare disparities, disease patterns, and public health challenges worldwide; *enhanced research opportunities* – international collaborations open doors to cutting-edge research, joint publications, and innovative medical discoveries.

Conclusions. Academic mobility offers significant benefits in medical education, enhancing global exposure, cultural competence, and career prospects for students. Through both physical and virtual mobility, students gain insights into diverse healthcare systems, engage in various learning environments, and expand their professional networks. Virtual mobility, particularly in response to disruptions like the COVID-19 pandemic, has grown as an alternative to traditional study abroad programs, providing flexible access to global education.

While academic mobility programs, such as Erasmus+ and Fulbright, facilitate cross-border medical education, challenges such as language barriers, financial constraints, and recognition of qualifications remain. Despite these hurdles, the advantages of mobility programs are clear: improved medical skills, increased adaptability, and a broader understanding of global health issues. International collaborations further enhance research opportunities, leading to innovative discoveries and advancements in the medical field.

Programs like Erasmus+ have demonstrated resilience in supporting students affected by crises, such as the war in Ukraine, by ensuring continuity in education and fostering international cooperation. These initiatives illustrate the transformative power of academic mobility, contributing to personal growth, professional development, and the advancement of global healthcare.

Further investigations into academic mobility in medical education could focus on several key areas. One important aspect is exploring the impact of virtual mobility on medical training, particularly in comparison to traditional physical mobility. Research could assess how virtual learning programs influence clinical skills development, cultural competence, and student engagement. Additionally, addressing persistent barriers to global mobility, such as language challenges, financial constraints, and visa regulations, should be a priority. Investigating strategies to overcome these barriers, such as expanding scholarship opportunities and enhancing language support, would improve accessibility for medical students. Another critical area for future research is the role of academic mobility programs in crisis response, such as during the war in Ukraine. Understanding how these programs can adapt to support students in times of global unrest will inform more resilient and flexible mobility models. Research could also focus on the long-term career impact of academic mobility, particularly in terms of employability and career progression for medical professionals. Finally, examining how academic mobility contributes to cultural competence development will help gauge its impact on improving cross-cultural communication and patient care in a globalized medical field.

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ШУМИЛО М. Ю., ШЛІМКЕВИЧ І. В. Дослідження академічної мобільності в медичній освіті: виклики, можливості та гібридні моделі для глобального навчання.

Академічна мобільність в медичній освіті надає значні переваги, забезпечуючи студентам глобальний досвід, доступ до різноманітних навчальних середовищ і можливості для розширення професійних контактів. Ці досвіди не лише покращують клінічні компетенції студентів, а й сприяють розвитку культурної компетентності та розширюють розуміння глобальних питань охорони здоров'я. У статті академічну мобільність поділено на два основні типи: фізичну мобільність, коли студенти виїжджають за кордон для участі в академічних або клінічних програмах, та віртуальну мобільність, яка використовує цифрові платформи для залучення студентів до глобальної освіти без необхідності фізичної подорожі. Обидва типи мобільності сприяють збагаченню медичної освіти, дозволяючи студентам отримувати практичний досвід в різних системах охорони здоров'я та медичних практиках по всьому світу.

Хоча академічна мобільність надає численні переваги, вона також має свої виклики, такі як мовні бар'єри, фінансові обмеження та питання визнання кваліфікацій. Крім того, зростаюча залежність від віртуальної мобільності через такі перешкоди, як пандемія COVID-19, підкреслює еволюцію глобальної освіти. Програми, як Erasmus+, Fulbright та ініціативи глобального здоров'я, відіграють важливу роль у сприянні студентським обмінам, зокрема у відповідь на глобальні кризи, забезпечуючи безперервність освіти та сприяючи міжнародним співпраці. Стаття також досліджує важливість комбінованого підходу, який поєднує фізичну та віртуальну мобільність для створення гнучких, стійких і доступних навчальних можливостей для медичних студентів.

Майбутні дослідження мають важливе значення для подолання існуючих бар'єрів та оптимізації інтеграції віртуальної мобільності в традиційні програми. Дослідження повинні зосередитися на довгостроковому впливі мобільності на професійний розвиток, працевлаштування та кар'єрне зростання. Сфокусувавшись на цих напрямках, програми академічної мобільності зможуть краще підготувати майбутніх медичних фахівців до роботи в різних системах охорони здоров'я та вирішення глобальних проблем здоров'я.

Ключові слова: академічна мобільність, медична освіта, медичний студент, охорона здоров'я, культурна компетентність, мобільні програми, вибіркові курси, глобальні виклики.