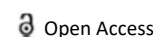




PERSPECTIVE



## Advancing in Medical Education and its Variants

Jaon Cera\*

Department of Paediatric Cardiology, University Hospital Münster, Münster, Germany

### ARTICLE HISTORY

Received: 28-Oct-2022, Manuscript No. JCMEDU-22-79891;  
Editor assigned: 01-Nov-2022, Pre-QC No. JCMEDU-22-79891 (PQ);  
Reviewed: 15-Nov-2022, QC No. JCMEDU-22-79891;  
Revised: 22-Nov-2022, Manuscript No. JCMEDU-22-79891 (R);  
Published: 29-Nov-2022

### Description

Medical education is a broad and far-reaching field whose main objective is to train, inspire and motivate medical students and doctors. There are many ways to get involved in medical education; as a doctor or medical student, you will already have medical training and will likely pay back through teaching others. You will also have some ideas from your own experiences about what has been helpful and motivating for you and what has been demotivating.

Medical education is education related to the practice of general medicine, including initial training to become a doctor (i.e ; medical school and internships) and subsequent further training (eg, residency, internship, and continuing medical education).

Medical education and training varies greatly around the world. Various teaching methodologies have been used in medical education, which is an active area of pedagogical research.

Medical education is also a subject-didactic academic field of medical education at all levels, including entry, postgraduate and further medical education. Specific requirements, such as assigned professional activities, must be met before moving on to the next stages of medical education.

### Types

**Postgraduate education:** After completing entry training, newly graduated doctors are often required to complete a period of supervised practice before being granted full registration; most often it lasts for one year and may be referred to as “internship” or “temporary registration” or “residence”.

It is possible to complete additional training in a specific field of medicine. In the US, additional specialized train-

ing completed after residency is called a “fellowship”. In some jurisdictions this begins immediately after basic training is completed, while other jurisdictions require junior doctors to complete generalist (non-streamed) training for several years before starting a specialty.

Each residency and fellowship program is accredited by the Accreditation Council for Graduate Medical Education (ACGME), a physician-led nonprofit organization with the goal of improving educational standards among physicians. The ACGME oversees all MD and DO residency programs in the United States. As of 2019, approximately 11,700 residency and fellowship programs in 181 specialties and subspecialties were accredited by the ACGME.

The theory of education itself becomes an integral part of postgraduate medical training. Formal qualifications in education are also becoming the norm for medical educators, so there has been a rapid increase in the number of postgraduate programs available in medical education.

**Continuing medical education:** In most countries, Continuing Medical Education (CME) courses are required for further licensure. CME requirements vary by state and country. In the US, accreditation is overseen by the Accreditation Council for Continuing Medical Education (ACCME). Physicians often attend specialized lectures, grand rounds, conferences and performance improvement activities to meet their requirements. In addition, physicians are increasingly choosing further education at the graduate level in formal medical education as a pathway to further professional development.

**Online learning:** Medical education is increasingly using online learning, typically within Learning Management Systems (LMS) or Virtual Learning Environments (VLEs). In addition, several medical schools have

incorporated the use of blended learning combining the use of video, asynchronous and face-to-face exercises. A landmark scoping review published in 2018 showed that online teaching methods are increasingly prevalent in medical education, with high student satisfaction and improved knowledge tests. However, the use of evidence-based multimedia design principles in the development of online lectures has rarely been reported, despite their known effectiveness in the context of medical students. To increase variety in the online delivery environment, the use of serious games that have previously shown benefit in medical education can be incorporated to break the monotony of online lectures.

Research areas of online medical education include practical applications, including simulated patients and virtual medical records (see also: telehealth). Compared with no intervention, simulation in medical education is associated with positive effects on knowledge, skills, and behaviors and moderate effects on patient outcomes. However, the data is not consistent regarding the effectiveness of asynchronous online learning compared to traditional face-to-face lectures. In addition, studies using modern visualization technologies (i.e., virtual and augmented reality) have shown great promise as a means of supplementing lesson content in physiology and anatomy education.