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eLearning and CME: the benefits for less developed countries

A look at use cases of eLearning for continuing medical education in developing countries

Continuing medical education is an established practice in developed countries. The United States and Europe have established and effective standards. To understand the potential of eLearning training, it is also useful to look at cases in developing countries.

What is CME, Continuing Medical Education

Continuing education is an essential practice to ensure that knowledge and skills are always solid and up-to-date. Keeping up to date has a twofold benefit: on the one hand, that of disseminating the latest notions and practices; on the other, that of preventing a physiological decay in the cultural and educational background of workers.

It is normal that of higher education, whether school or university, some things are forgotten or not remembered as accurately as they once were. It is less acceptable for this progressive forgetting to lapse into areas of professional competence, which would limit operational functionality. Professions provide for more or less long periods of practice or apprenticeship precisely to weld skills and theoretical knowledge to work routines. This practice is usually remembered as one of the most intense and challenging periods by lawyers, doctors and journalists: it is a period of transition from study to work for which one has trained for a long time.

The problem can arise in later years when, as a rule, the professional or practitioner has undertaken and completed a specialisation course. On the one hand, there is a trade-off, a trade-off between the advantage of concentrating on a narrow field of the legal or health profession and the limitation of neglecting even in its entirety some of the subjects that make up the doctor's or lawyer's cultural background. On the other hand, this specialisation requires one to be up-to-date with the latest practices and notions in one's own field: for the lawyer, it may mean being aware of the latest legislation on the subject or its application in case law; for the doctor, it may entail both learning about the most promising therapies and any innovative medical discoveries.

CME in advanced countries

One can easily understand how continuing medical education is as essential as it is complex to administer and follow. In Italy, the **national Continuing Medical Education (CME) programme** officially started in 2002. The National Commission for Continuing Education, set up by the Ministerial Decree of 27 September 2002, has the task of defining the guidelines for diagnostic-therapeutic pathways and setting multi-year training objectives. This programme involves various actors in the healthcare sector, from the various professional orders and colleges, which represent the instances of healthcare personnel as users of training courses, to bodies such as universities, scientific institutes and foundations, publishing houses and public bodies. Added to these are the providers, the providers of training content such as eLearning courses.
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The national CME programme follows an international practice, which has its origins in the United States as well as in Europe, with institutes such as the **International Association for Continuing Education and Training (IACET)**, and the European Accreditation Council of Continuing Medical Education (EACCME). These institutes have the advantage of regulating a sector in the two most advanced economic areas, where most innovation in the sector originates and the bulk of medical research takes place.

The standards set by the IACET for the licensing of providers in the United States are also adopted internationally as guidelines for the adoption of training content. This allows for greater standardisation across countries, which benefits professionalism and

the interchange of personnel and procedures.

In Europe, the **EACCME was originally established as a standardisation institute between European countries**. Forty-one are the member states of the UEMS, the European Union of Medical Specialists, the institution that includes the EACCME and represents over 50 medical disciplines, of which 43 are recognised worldwide.

eLearning and CME

Together, **IACET and EACCME help define the training requirements for healthcare personnel and assess the credits that professionals must acquire annually**. A generic rule for their allocation is that each hour of training corresponds to one training credit acquired.

This training can take different formats, such as live meetings, conferences, symposia or seminars. In addition to these Residential Events (RES), activities involving direct practice in the healthcare professional's ward or operating theatre can be associated and are called Field Training (FSC). In addition to these modalities, it is possible to take courses remotely with Distance Learning (FAD). This is the practice that goes by the name of eLearning and that has found ubiquitous diffusion in recent years: it is not necessary to go as far as the training of a primary physician to find students of all ages taking courses remotely.

For a doctor, being able to attend a webinar, read a presentation in an e-book, see a surgical procedure in an audiovisual file is an option with several advantages. Firstly, being able to optimise the time dedicated to professional development: as we have seen during the pandemic, nurses and doctors can follow a very intensive rota, with very little time left over, which would greatly limit the possibility of attending live courses or in other venues. Secondly, the power of the IT medium, connected to the vastness of online content, allows professionals to optimise the use of courses and to summarise the notions learnt by searching for information on other sites or by sharing questions and answers in the forums linked to e-Learning courses. Thirdly, the possibility of using microlearning courses, of shorter duration and more specific areas, allows the physician to maintain an active and proactive attitude while listening. Lastly, an eLearning course can be integrated with the other modalities listed above for a blended use, involving several modalities to increase the effectiveness of the course attended.

CME in developing countries

What has been said so far originates and adapts to the context of advanced countries, where resources in the health sector, despite tight budgets and generation turnover issues, are of a high standard. The question remains whether this approach can have a universal character.

If one takes into account that only 17% of the population lives in developed countries one realises the issue: almost seven billion people live in a developing environment. Although there are huge differences within them, these are the countries where an improvement in health services can make the biggest difference, from reducing infant mortality to extending life expectancy to eradicating diseases that are elsewhere curable.

Recent studies in India, Rwanda and Peru can be cited in this regard. Each of these countries has its own peculiarities and for each of them, research has considered eLearning training following the Covid-19 disruptions. This gives an interesting representation of the potential of this technology in its different applications to local contexts.

CME in eLearning in India

A **research conducted by medical researchers in New Delhi** surveyed a sample of over three thousand healthcare workers. The survey, in which mostly professionals under the age of thirty participated, showed that two-thirds of the sample had used eLearning platforms to acquire knowledge and skills during the pandemic. Net of concerns about the cybersecurity of the platforms they attended, the benefits cited by participants were reduced travel time and the ability to maintain social distancing without compromising training needs. The study concludes that these features may ensure further deployment of this training method in the coming years.

CME in eLearning in Rwanda

As a low-income country, Rwanda suffers from a severe shortage of health workers and severely restricted access to continuing professional development opportunities. The WHO estimates that for every 10,000 people there are 1.3 doctors and 12 midwife nurses: about half the minimum number required. Furthermore, the skill mix is rated as inadequate, which makes the need for continuing education even more pressing.

The **study presented** examined the use of information and communication technologies (ITC) for the use of video conferencing in training. The conclusions call for the use of these technologies to provide continuing professional development courses that are designed to meet local needs. Again, the Covid emergency emphasised that the virtual solution could offer the best advantages. An essential condition is that users have the necessary electronic tools and have an adequate level of technological literacy.

CME in eLearning in Peru

Students of the two main medical faculties in Lima were also surveyed on the topic. The **survey aimed to understand students' perceptions of eLearning during the Covid-19 pandemic**.

Despite some criticism of the preparation of teaching staff, a markedly favourable opinion of eLearning technologies emerged, with between 60 and 80 per cent of students at the two universities being satisfied. In particular, the virtual platforms are considered effective in facilitating feedback with recorded lectures and the organisation of documents.

In conclusion

India, Rwanda and Peru are only three possible cases where the adoption of continuing education practices can benefit from the eLearning format. The convergence of medicine and technology opens the door to new professions and new critical issues: having individuals and organisations with expertise at the intersection of these two fields is essential; just as it is essential that those who deliver the courses and check the training of students are up-to-date on the evaluation criteria and the risks and potential of electronic resources.

This paradigm shift requires the creation of competence networks and synergy between different institutional and private actors. Lowering costs and benefiting from economies of scale in content production can be brought about by the standards promoted by the aforementioned bodies such as IACET and EACCME.

This push for the homogenisation of knowledge and requirements could allow the most structured providers to offer their technologies and content in more geographical areas, even crossing linguistic boundaries. For developing countries, this could be an important contribution to achieving both effectiveness and efficiency in continuing education.

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