

Microlearning: The Future of CPD/CME

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COVID-19 and Its Impact on Digital Education

Over the past 20 months, the COVID-19 pandemic has had a transformative impact on all aspects of our lives. Healthcare continues to be one of the most profoundly affected working environments, with significant ramifications for the continuing professional development (CPD)/continuing medical education (CME) of healthcare providers (HCPs). This public health crisis has meant that a number of face-to-face CPD/CME-learning opportunities and methodologies had to either be cancelled (as with conferences) or limited to fairly small groups (as with grand rounds), underscoring the importance of digital CPD/CME formats.

The pandemic also confronted HCPs with an unprecedented volume of clinical updates from a variety of sources in a relatively short amount of time. HCPs were challenged to not only find credible sources of information within this vast, expanding universe of data but also perform their routine duties to optimise the outcomes of their patients. These challenges further strengthen the need for digital CPD/CME formats that engage and educate HCPs through short, bite-sized, credible, and evidence-based educational activities.

Is Microlearning the Answer?

Microlearning is an innovative pedagogy that has gained momentum and attention over the past decade [1]. Microlearning enables HCPs to learn through succinct, easy-to-digest, and short-duration educational activities. It capitalises on Web 2.0 technologies to engage HCPs and promote self-determined learning among a self-motivated professionally qualified audience, in keeping with the principles of heutagogy [2,3]. This theory enables creativity as well as flexibility, and above all the

ability of learners to engage in self-directed and self-determined learning. It is a pedagogy that is increasingly relevant and well-suited to the current schedules of HCPs, who increasingly rely on news, podcasts, and videos throughout their day, regularly checking emails and other text communications, and searching online for answers to their pressing clinical questions. As HCPs continue to face these new realities, they need access to CPD/CME activities in microlearning formats to help optimise their learning journeys throughout their professional careers.

Microlearning CPD/CME formats provide learners with the flexibility to engage in a number of different learning modalities such as short articles, bite-sized videos or audios, podcasts, blended instructional designs that extend the reach of live educational activities into a succinct video or audio, and illustrative case studies for model clinical decision-making [1,4]. These innovative microlearning formats can be coupled with outcome assessments to measure learner outcomes according to Moore's Levels [5], providing clinicians with insights into current clinical practice and gaps.

A recent scoping review of microlearning in HCP education concluded that as an educational strategy, it has a positive effect on the knowledge and confidence of HCPs (students) in performing procedures, retaining knowledge, studying, and engaging in collaborative learning [1].

Medscape Education outcome studies have demonstrated similar results from their multiple microlearning formats, with many of these results presented at various premier medical conferences. One such poster presentation by Larkin *et al.* revealed the success of an online audio summary of a symposium in improving knowledge and confidence among HCPs on the topic of real-time continuous glucose monitoring, with gaps identified for future education. The matched learner data from this

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Accreditation Council for Continuing Medical Education (ACCME)-accredited, 15-minute summary indicate that overall, 19% of diabetologists and endocrinologists (total sample size, $n = 234$) and 26% of primary care physicians (total sample size, $n = 241$) improved their responses from pre-to-post with a considerable Cramer's V effect size of 0.164 and 0.205, respectively [6].

Another poster presentation showcased the success of a Faculty of Pharmaceutical Medicine of the Royal Colleges of Physicians of the UK (RCP UK) CPD-certified, 15-minute, interactive, case-based education that significantly improved clinicians' competence in differentially diagnosing nontuberculous mycobacterial lung disease (NTM-LD) and communicating with patients about the goals of their treatment. After participating in this microlearning educational activity, 65% of infectious diseases specialists ($n = 74$) and 40% of pulmonologists ($n = 45$) had measurably increased confidence in diagnosing NTM-LD [7].

These findings add to the body of evidence that educational units of less than 60 minutes in length or even micro-e-learning may have an impact on physicians' decision-making.

Currently, several accreditation bodies, including the European Board for Accreditation of Continuing Education for Health Professionals (EBAC[®] [8]), and RCP UK, already accredit live and digital activities less than 60 minutes in length, and in the USA the credit system, as defined by the American Medical Association, allows the awarding of half or quarter credits. We would thus like to propose that accreditation bodies should adopt as a general strategy to either award fraction credit points (for example 0.25 credit point for a 15-minute activity) or consider a system whereby learners could "bank" credits until they reach one (1.0) credit point, which could enable a learner to claim a CPD/CME credit (a series of accredited learning activities that totals 60 minutes). These models would foster the integration of microlearning activities into the learning journeys of HCPs.

The International Academy for Continuing Professional Development Accreditation (IACPDA) has adopted the International Standards for Substantive Equivalency between CPD/CME Accreditation Systems [9]. These standards have been set as international guidelines for the CPD/CME accreditation of HCPs, assisting them in self-directed and self-determined learning through access to accredited education that is recognised by various CPD and CME accreditation bodies. This supports HCPs in reducing the burden of meeting multiple requirements, and promotes flexibility, diversity, and a greater choice in

education. The Standards support the principle for the creation of a universal accreditation requirement system, enabling multiple international accreditation bodies to recognise and accredit the same educational activity formats, including microlearning.

In conclusion, the COVID-19 pandemic has impressively demonstrated the need for accreditation bodies to define ways of incorporating education lasting less than 60 minutes (including micro-e-learning) into their credit schemes. Self-directed and self-determined microlearning will definitely add a new dimension to the future of CPD/CME, and both HCPs and CPD/CME providers would benefit equally from accreditation bodies recognising and accrediting these newer educational formats.

Disclosure Statement

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