

Collaborative Online Learning: A New Approach to Distance CME

IN PRESS, *ACADEMIC MEDICINE*:

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Objective:

Online CME has not characteristically taken advantage of the original purpose of the Internet: to communicate and collaborate. Collaborative learning is an important adult learning principle, yet online CME programs are generally completed in isolation, in a one-on-one relationship with computer and content. This limits the learner's reflective learning opportunities, and does not access the rich learning available from interacting with peers. We believe online CME will benefit from structured and unstructured interaction between learners, and from opportunities for reflection.

Description:

We implemented a prototype online course designed to improve the skills of General Practitioners in the care of patients with type 2 diabetes. The course design reflects adult learning principles, but uniquely, applies them to online learning. Currently, 20 GPs from England are enrolled, including one based in Bosnia, and 1 GP from New Zealand. Most were recruited from an academic organization. The course uses Blackboard

courseware. Participants log in twice weekly for 7 weeks to study one of 7 interactive modules on diabetes based on evidence-based sources. Modules provide for branched learning via links to additional resources.

Subsequently, GPs engage in 2 online threaded discussions. These are "asynchronous" meaning that participation is at the learner's convenience, rather than requiring adherence to a set schedule. One discussion group is for reflection on the modules, with an assignment to discuss how the material is being applied clinically. Participants also respond to colleagues' postings each week.

In a second discussion group, learners apply concepts from the modules to the collaborative management of a problem-based case of a patient with newly diagnosed diabetes. The patient is presented via an online medical chart and streaming videos. She returns each week of the course to mimic 18 months of care. Faculty facilitate the discussion groups and provide feedback.

Discussion:

Participant feedback has been overwhelmingly positive. In this, the last week of the course, many note how well the course design and timing match their learning styles and schedule constraints. A powerful feature has been our ability to identify additional educational needs, and quickly add corresponding content online.

Participants have provided 340 postings over 7 weeks of the course. These include evidence of course effectiveness including documentation of application of course objectives and disease management strategies to change actual practice patterns. GPs report changing: screening practices for diabetic renal disease; prescribing of diabetic medications; screening protocols for diabetes; and organization of practice management systems to better track diabetic care. After diagnosing and managing a new diabetic patient during the course, one participant wrote: "It was fantastic to feel that I am offering an up to date evidence-based approach in something that I am deskilled in."

This course is unique in online CME. It is international in scope, collaborative, asynchronous in delivery, flexible, responsive to learner needs in real time, and has yielded evidence of its effectiveness in changing the actual clinical practice of participants. It will next enroll GPs in Singapore and additional UK-based GPs. Additional CME courses will be developed using this method.

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