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Closed Facebook™ groups and CME credit: a new format for continuing medical education

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Abstract

Background The International Hernia Collaboration (IHC) is a closed Facebook™ group that allows international surgeons to post clinical questions and exchange transparent feedback with the intent to optimize patient outcomes. Despite the educational value of closed FB groups, CME credits have not been available to members. To determine feasibility of and user interest in earning CME credit through social media, the IHC piloted a series of expert lectures followed by an interactive Facebook Live session as a novel pathway offering CME credit.

Methods Nine monthly lectures and Facebook Live sessions were presented. CME credit was offered for the final seven lectures. Participation in the form of views, comments, and likes was quantified by a Facebook analytics service and an engagement score, defined as [(the number of comments × 2) + (the number of reactions)], was calculated for each lecture and Facebook Live session. CME credit was obtained through a two-question quiz.

Results Of 5400 + Facebook members of the IHC, an average of 1116 (20.4 ± 4.0%) viewed the live session event following each lecture ($n = 9$ events). The average Facebook engagement score for Facebook Live was 259 ± 75, a significant difference with the average Facebook engagement score on the IHC (40.8) over the same time period ($p < 0.001$). On average, 16 users [range 8–35, ($n = 7$ events)] claimed CME credit for each educational series.

Conclusions Closed Facebook groups can be a useful media to offer educational content and CME credit. The pilot IHC Lecture and Facebook Live series offering CME credit resulted in significantly more engagement amongst its members compared to other posts during the same time period. A small portion of participants qualified for CME credit. Future social media educational series may increase participants qualifying for CME by streamlining the interface to obtain CME credit.

Keywords Social media · Surgical education · Continuing medical education · Hernia · Hernia surgery · General surgery

> "If the license to practice meant the completion of his education how sad it would be for the practitioner, how distressing to his patients". Sir William Osler, July 4, 1900 [1]

The imperative for lifelong learning has long been recognized by physicians. Since the turn of the twentieth century requirements of physicians to document post-graduate learning have become increasingly formalized. Today, this is accomplished in part, through Continuing Medical Education (CME) credits. The Accreditation Council for Continuing Medical Education (ACCME) defines CME as "educational activities which serve to maintain, develop, or increase the knowledge, skills, and professional performance and relationships that a physician uses to provide services for patients, the public, or the profession." [2].

CME credit is earned through educational conferences, web-based seminars, online modules, and other similar didactics. A variable number of CME credits is required for state medical licensure in the United States [3]. CME credit is also a requirement of "Lifelong Learning and Self-Assessment" for Maintenance of Certification under many of the medical specialty boards of the American Board of Medical Specialties, including the American Board of Surgery [4].

Traditionally CME was earned through in-person encounters such as grand rounds, workshops, symposiums, and conference attendance. With the advent of the internet, options

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for physicians to earn CME online began to appear. Given the convenience of earning CME at any time, in the comfort of one's home or office, this modality was quickly adopted. From 1998 to 2003, the number of physicians participating in Internet-based CME increased over 600% and the number of CME activities available on the Internet rose over 800% in the same time period [5]. By 2014, 32% of CME credit was earned through internet enduring materials [6].

As the internet evolved to include Web 2.0 technologies such as user-generated content and social media, so too have the expectations of medical learners [7]. Traditional formats of learning such as passive lectures and didactic videos have given way to more active, dynamic, and participatory learning. On the wave of this evolution, senior author (BJ) founded the International Hernia Collaboration (IHC) closed Facebook (Menlo Park, United States) group with the aim of connecting surgeons worldwide in the advancement of patient care and surgical education [8]. The group comprises surgeons, healthcare providers, and vetted medical device industry partners. New members have their credentials verified by the group administrators. Since its inception the IHC has grown to over 5,400 members from around the world.

Closed groups such as the IHC allow members to transparently and globally collaborate, discuss challenging cases, and share surgical techniques, with the intent to optimize patient care. Many members spend significant time posting cases with clinical and technical questions and anecdotally endorse learning through their participation in the IHC. In the non-traditional setting of the closed Facebook group, members had no mechanism to receive acknowledgment or compensation for their time and learning, such as in the form of CME credit.

We sought to determine the feasibility of offering CME credit through a Facebook-based video lecture followed by an optional live interaction with the presenter 24 h later. To our knowledge, this is the first opportunity for physicians to receive CME credit through participation in a closed Facebook group.

Materials and methods

Between May 2017 and January 2018 the IHC piloted a series of nine monthly hour-long video lectures (from now on referenced as lectures) with subsequent live hour-long Facebook question and answer sessions (called Facebook Live) with the lecturer 24 h later. Facebook Live enables livestream video broadcasting in which viewers can submit questions via text. The series' lectures and Facebook Live sessions were only accessible by members of the IHC.

Lectures consisted of a PowerPoint presentation prepared by an international panel of content experts who narrated the presentation in video format. Four of the sessions had additional assistance from a surgical resident. Table 1 shows the list of topics, presenter, and presenter's country of practice. At the end of the session, the video became a permanent post on the IHC timeline. All IHC members were invited to engage with the educational series, with announcements posted two weeks prior and one day before the lecture. Figure 1 shows a example announcement, lecture video, and Facebook Live session.

Grytics (Paris, France), a Facebook group analytics service, was used to measure participation (views, comments, and likes). In addition, analysis from Grytics was utilized to determine the "engagement score" of each event, measured as [(2 times the number of comments) + number of likes + number of reactions]/number of posts.

CME credit was made available through the accredited distribution site Ciné-Med for the last seven lectures. A weblink to Ciné-Med was provided during each lecture and Facebook Live session event. Members were eligible for 1 h of AMA PRA category one CME credit™ by completing a two-question quiz. A Ciné-Med account was required to take the quizzes. Data regarding participation in the quizzes and the eligibility of CME credits were provided by Ciné-Med.

Statistical analysis was completed using Student's unpaired T-test.

Table 1 Topic, lecturer(s), and US state or country of practice

Topic	Lecturer(s)	US state/country
Abdominal wall anatomy and CT imaging in hernia patients	Dr. Eric Pauli and Dr. Ryan Juza	Pennsylvania
Inguinal hernias: anatomy and open repair techniques	Dr. David Chen	California
Laparoscopic Inguinal Hernia Repair: TEP, TAPP, eTEP and more…	Dr. Jorge Daes	Colombia
Post-operative chronic pain assessment	Dr. Rigo Alvarez	Mexico
Hernias among women	Dr. Shirin Towfigh and Dr. Desmond Huyhn	California
Pediatric hernias	Dr. Todd Ponsky and Dr. Sophia Abdulhai	Ohio
Hernia repair in the morbidly obese	Dr. Ramana Balasubramaniam	India
Open TAR: tips and tricks	Dr. Sean Orenstein	Oregon
RoboTAR: how i do it	Dr. Conrad Ballecer and Dr. Jarvis Walters	Arizona

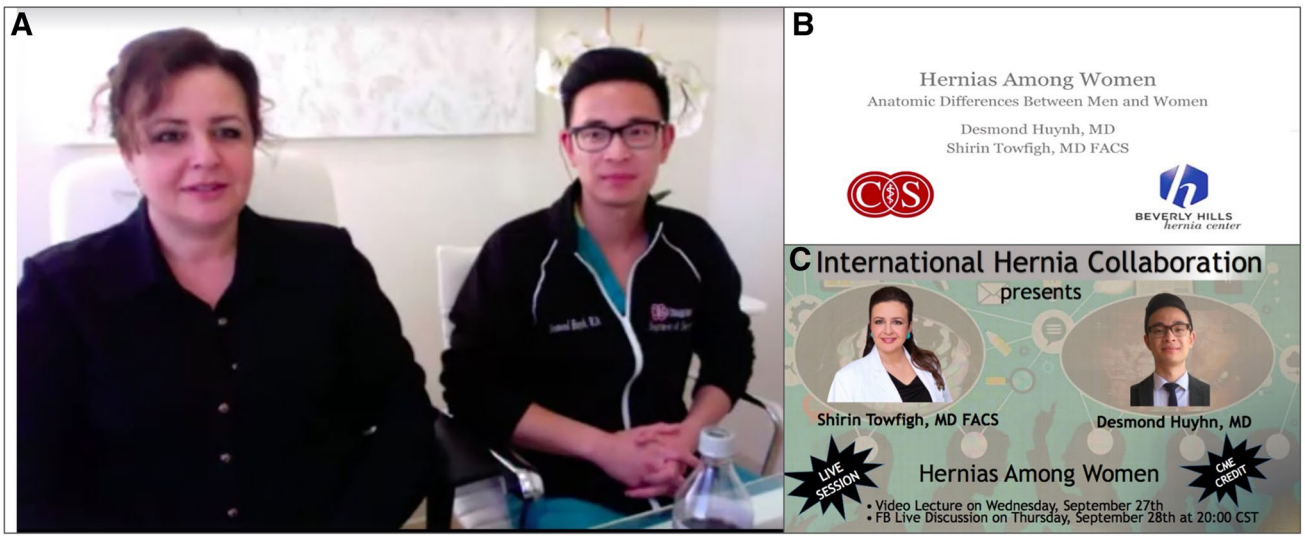

Fig. 1 Example of Facebook Live session, lecture video and announcement. **A** Dr. Shirin Towfigh (left) and Dr. Desmond Huynh (right) during the Facebook live session. **B** Lecture video posted on the IHC platform. **C** Advertisement for educational series and CME credit

Results

The average number of likes for the lectures ($n=9$) and Facebook Live sessions ($n=9$) were 71.5 and 60.9 ($p=0.15$), respectively, and the average number of comments were 20.6 and 110.9 (<0.0001), respectively. The number of views per lecture is not captured by Facebook analytics. The average views per Facebook Live session was 1,116 (range 380–1600), representing 20.4% ± 4.0% of the 5,458 IHC members (based on March 2018 membership). Figure 2 shows the number of views for each of the nine sessions.

The average Facebook engagement scores for video lectures and Facebook Live sessions were 107.8 and 259.1, respectively ($p<0.0001$). The average engagement score for all posts on the IHC page ($n=2,206$) during the same time period was 46.0, a significant difference when compared to the video lecture or live session independently ($p<0.0001$ for both). There was no statistically significant difference in mean engagement scores between the Facebook Live sessions with CME offered ($n=7$) 276.2 ± 50.9 and Facebook Live sessions without CME offered ($n=2$) 199 ± 31.1 ($p=0.37$).

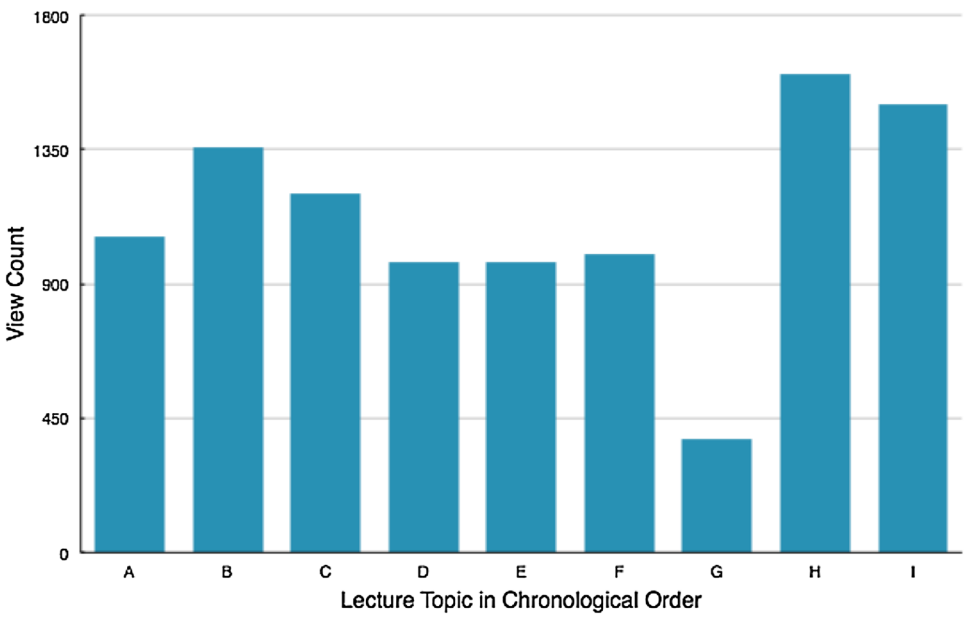

Fig. 2 Number of views of individual Facebook Live sessions. *A* Abdominal wall anatomy & CT imaging in hernia patients. *B* Inguinal hernias: anatomy and open repair techniques. *C* Laparoscopic inguinal hernia repair: TEP, TAPP, eTEP & more… *D* Post-operative chronic pain assessment. *E* Hernias among women. *F* Pediatric hernias. *G* Hernia repair in the morbidly obese. *H* Open TAR: tips and tricks. *I* RoboTAR: how i do it

Collectively, participants qualified for a total of 113 CME credits. An average of 16 ± 9.3 members per session (range 8–35) completed the post-test and were eligible to receive CME credit.

Discussion

The present study demonstrates the feasibility of a recorded lecture series followed by live interaction with the presenter through a closed Facebook group as a method of education delivery for CME credit.

An average of 16 members were eligible to receive CME credits for each topic. This is far fewer than the number of views of Facebook Live or likes of the lecture. It is unclear if this discordance is due to lack of interest or rather due to sign-up and login fatigue. The cumbersome nature of the additional account and login required to earn CME credit may be prohibitive. A Medical Education Service Provider authenticated through Facebook may overcome this barrier.

Analysis of social media participation is limited to the extent and quality of metrics captured by the social media platform. In our case, we were unable to obtain the number of times each video lecture was viewed. Also, the number of views for each Facebook Live session does not necessarily represent the number of people who viewed the session to completion, but rather the number of times the session was viewed for at least three seconds. Given the small number of likes of the Facebook Live session in comparison to the number of views, it is likely that similarly, many more users viewed the lecture than liked it. However, the number cannot be known with certainty.

Technical difficulties with the seventh lecture limited the time the lecture was available for viewing, preventing interested members from viewing the lecture and participating in the subsequent Facebook Live.

There are many benefits of using case-based social media groups to facilitate CME credit. One is the opportunity to teach and to learn with no travel and minimal cost. A second is participants' comfort and familiarity with fellow learners. Third is the ability to continue the dialogue after the educational intervention. At the close of each Facebook Live session members continued to discuss the lecture content until questions and comments reached a natural endpoint. Fourth is the global reach of social media. As an international collaboration, the IHC could extend its offering of CME credit to international members by working with international accreditors recognized by ACCME-equivalent organizations [9].

Part way through our lecture series, the American Medical Association modified the requirements for accredited CME providers to certify activities for AMA PRA Category 1 Credit [10]. One modification was the addition of an "other activity" format for activities that meet core and credit requirements but do not fit within one of the previously existing formats. Social media activity, including "online case discussion through social media" falls under this category [7]. Thus, the recorded lecture portion of our series would not be necessary and CME offerings through case-based participation in the IHC may be possible.

To our knowledge, this pilot lecture series represents the first time CME credit has been offered through a closed Facebook group. Given learner affinity for online learning and increasing interest in interactive offerings, others may wish to adopt a similar format. With the recent changes to format requirements for activities to be certified as AMA PRA Category 1 Credit, we anticipate increased utilization of Facebook and other social media platforms for continuing medical education.

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Compliance with ethical standards

Disclosures Omar Ghanem, Heather J. Logghe, Benjamin V. Tran, Desmond Huynh, and Brian Jacob have no conflict of interest or financial ties to disclose.

References

1. Osler W (1900) An address on the importance of post-graduate study: delivered at the opening of the museums of the medical graduates college and polyclinic, July 4th, 1900. Br Med J 2(2063):73–75
2. CME Content: Definition and Examples | Accreditation Council for Continuing Medical Education (2018) http://www.accme.org/requirements/accreditation-requirements-cme-providers/policies-and-definitions/cme-content-definition-and-examples. Accessed 15 Apr 2018
3. American Medical Association (2014) State medical licensure requirements and statistics 2014. American Medical Association, Chicago
4. ABMS Member Board. ABMS MOC Lifelong Learning and Self-Assessment (Part II) Requirements. http://www.abms.org/media/176514/abms-moc-lifelong-learning-and-self-assessment-part-ii-requirements-20180131.pdf
5. Schrock JW, Cydulka RK (2006) Lifelong learning. Emerg Med Clin North Am 24(3):785–795
6. McMahon GT (2016) what do i need to learn today? The evolution of CME. N Engl J Med 374(15):1403–1406
7. McMahon GT, Skochelak SE (2018) Evolution of continuing medical education: promoting innovation through regulatory alignment. JAMA 319(6):545–546
8. Chui PC, Jacob BP (2014) Quality improvement through social media: an initial look at the International Hernia Collaboration Facebook(tm) Group—SAGES Abstract Archives. SAGES. https

://www.sages.org/meetings/annual-meeting/abstracts-archive/quality-improvement-through-social-media-an-initial-look-at-the-international-hernia-collaboration-facebooktm-group/. Accessed November 5, 2017
9. Our History | Accreditation Council for Continuing Medical Education. http://www.accme.org/about-us/our-history. Accessed 15 Apr 2018
10. American Medical Association (2017) The AMA's physician's recognition award and credit system. https://www.ama-assn.org/sites/default/files/media-browser/public/cme/pra-booklet_0.pdf