Stimulating Effective Learning for Post Graduate Health Care Professionals

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Introduction

The calamitous COVID pandemic, ill fated as it was, did manage to bring a new level of interest in blended learning to all education. The effect on Graduate Medical Education (GME) was no exception. In years past, GME was primarily a didactic based learning environment where fellows would sit for hours on a given day for a block of in person lectures. This format allowed for little interaction between the speaker and student and was not producing optimal outcomes. Institutions are beginning to implement blended learning. Given the Centers for Disease Control and Prevention's recommendations to cancel large conferences and limit regular meeting sizes, our traditional model of person – to – person educational didactics, lectures and chalk talks have been compromised (Almarzooq et al., 2020, p. 2635). It's time for institutions to do a better job on combining knowledge, research and education and that time is now. Traditional learning has always been adequate in educational objectives, but blended learning provides more opportunities to optimize a student's ability to learn, which in turn, increases their self-confidence, all while experiencing interactive studies with more positivity.

Benefits of Blended Learning

Blended learning must be a positive interactive experience for GME students. Each student, with each of their specialties, including each of their patients, will benefit from stimulating their motivation with more than traditional homework (Westerlaken et al., 2019, p. 5). Collaborative learning strategies "increased the levels of education and stimulate effective learning for postgraduate health care professionals" (Westerlaken et al., 2019, p. 6). The "Flipped Classroom" concept has been introduced and indicates interactive learning methods may increase learning results and overall satisfaction (Westerlaken et al., 2019, p. 3). "In the COVID-19 era, the need for innovative solutions to optimize educational endeavors has

accelerated. New technologies such as ZOOM and Slack have been added to improvise in many programs. Before COVID-19, tools such as WhatsApp and Twitter were used by many trainees for both sharing of medical knowledge and collaboration. They continue to be an important outlet for many physicians to learn and disseminate information around the world" (Almarzooq et al., 2020, p. 1).

Optimized Learning

The term "blended" is frequently used interchangeably with "hybrid" "web-enhanced" or "mixed-mode" teaching (Singh, 2017, p. 1). According to Singh (2017)

> The environment in which medical students learn today is vastly different than it was 20 years ago when the Internet was not such a dominant tool in medical education. E-Learning platforms are now increasingly utilized by medical schools around the world and comprise adaptive tutorials, audiovisual clips, and virtual models. These educational media possess several distinct advantages over traditional didactic models of instruction, including the ability to update material in a timely manner to ensure delivery of the latest evidence-based content to trainees. E-learning has been demonstrated to be as effective as conventional didacticism and can be used to foster self-directed learning. It encourages medical students to exert greater control over their learning by allowing flexibility over content and pace. In such models, educators can evaluate competencies objectively through online assessments, enabling students to receive personalized feedback for self-improvement (Singh, 2017, p.4).

Blended learning has wide applicability and has potential to transform medical education. It is not a new concept and can be equated with pedagogies such as active learning, peer instruction, case-based or problem-based learning or any blended learning strategy that requires students to

prepare to learn before they meet and engage with peers in purposeful activities. (Jafri et al., 2019, p. 12). Medical graduates of the twenty-first century are expected to hit the ground running, requiring not only a traditional clinical education, but also one that is up to date with the latest technologies in order to ensure flexibility in a dynamic workplace. There has never been a greater need for educators, students and clinicians to continuously update their skills, to remain abreast of the changing healthcare environment and to remain digitally literate (O'Doherty et al., 2018, p. 2).

Build Confidence

Consequently, the "disruption of educational activities can have a negative impact on a trainee's wellness and their sense of community" (Almarzooq et al., 2020, p. 1). The virtual learning platform has significantly reshaped and innovated how we teach and engage with medical trainees. There is hope to "attenuate trainee burnout while promoting wellness in a time when isolation has become a part of everyday life" (Almarzooq et al., 2020, p. 5). Students are more likely to engage if they are supported by teachers who work for an effective learning environment, expect a high standard, challenge and volunteer themselves freely available to discuss student academic progress (Jafri et al., 2019, p.2). Increasing student engagement is one way of enhancing the quality of learning and improving knowledge of students. The challenge of maintaining a learner's attention is to encourage active participation. "Utilizing a case-based learning approach to engage fellows in discussion of specific scenarios that resemble typical, real-world patient encounters in online learning may help improve a fellow's motivation and engagement" (Singhi et al., 2020, p.6). By involving the "target group in multiple ways during the development process, it is more likely you will meet the needs of the future learners and they will accept the implemented formats" (Hege et al., 2020, p. 3). Studies evaluating the use of

blended learning have shown "it can potentially improve healthcare students' clinical competencies, increase student engagement and medical students have demonstrated significantly better performance in exams compared to students receiving traditional teaching without any online learning material" (Lanca & Bjerre, 2018, p. 2). Traditional instructor centered teaching is yielding to a "learner-centered model that puts learners in control of their own learning" (Ruiz, et al., 2006, p. 1).

Positive Learning

Developments in e-learning and technologies are creating the groundwork for a "revolution in education, allowing learning to be individualized (adaptive learning), enhancing learners interactions with others (collaborative learning) and transforming the role of the teacher (from disseminator to facilitator)" (Ruiz, et al., 2006, p. 5). Some elements of blended learning that enhance the understanding of the concept have been defined as: "1. The learners have at least some control when, where and how they work. 2. Technology is used to leverage personalization. 3. Instruction provides an integrated learning experience, I.E., the online and face-to-face instruction is aligned in a meaningful way" (Hege et al., 2020, p. 1).

Conclusion

To be a leader, one must "make time for and be personally committed to the continuous professional training" (Singh, 2017, p.4). Fostering a change of "norms and attitudes is an important solution in the development and implementation of online learning in Medical Education" (O'Doherty, 2018, p. 9). Medical students have addressed a desire to "increase the amount of clinical exposure and more face-to-face time with their patients" (Langenau et al., 2017, p. 238). Blended learning may not result in "higher grades but it may address clinical competencies that are not routinely addressed by examinations and help close the gap between

knowledge and performance" (Langenau et al., 2017, p. 240). Online learning in medical education is a relatively new concept but one that is rapidly expanding. Students will be "better prepared for the challenges faced in this digital age when they have the full support of the online learning staff" (O'Doherty, 2018, p. 10). It is important to investigate the "best balance between technology and learning in a face-to-face setting because online activities may enhance but should never fully replace face to face learning with real patients" (Langenau et al., 2017, p. 234). Medical students may continue to obtain knowledge through blended learning, but empathy is felt and learned only by the direct hands-on approach with patients.

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