

## Chapter 8

# The Role of Blended Learning in 21st Century Medical Education: Current Trends and Future Directions

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### ABSTRACT

*The teaching of medical students is of paramount importance for society as the goal is to have well-educated and competent physicians that can help address the healthcare issues facing today's society. The pedagogical influences that drive medical education have seen many advances in the past 30 years, but one that is seen as a leader for the future is the use of blended learning. This chapter will highlight that blended learning in medicine allows learners to be flexible in their education, as they are not constrained by time or distance as they move towards developing core competencies needed for their chosen discipline. One of the key drivers of this momentum in medicine is technology, and blended learning is one of the leading pedagogical influences in medical education for the future.*

### INTRODUCTION

The global debate of healthcare access and social detriments of health in the 21<sup>st</sup> century continue to coalesce our thoughts around the paramount question how we are teaching the future physicians of the day who are an integral part of the

team that delivers healthcare to us as a society. Given the challenges that society faces with the rapidly aging population and increase in chronic diseases such as obesity, diabetes and hypertension, are we delivering healthcare education in manner that allows them to be both educated and competent in order to combat the health problems of global society? This might be considered a grandiose question when thinking of the latest

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pedagogical methods used in medical education today but this is where we need to begin in order to assess the role of new methods of educational delivery for medical training and determine if they are indeed the most appropriate for the task at hand. The education of medical students in the 21<sup>st</sup> century should not come without some reflective thought and in thinking back over the past 100 years in medical education, this reflection has not occurred since the first definitive report by Abraham Flexner in 1910 on the landscape of teaching methods used in medical schools at the turn of the century. That report culminated with a harsh and systematic review of the state of medical education of the day and provided clear guidelines that evoked broad sweeping changes that have since governed medical education for past 100 years and has shaped the direction of how medical students should be taught and by what methods.

Flexner's principles have influenced medical education for the past century but it has truly been in the past 30 years that we have witnessed tremendous growth in medical education teaching practices. According to Harden (2000), we can think of this growth in two fundamental ways. Harden argues:

*We can look at the changes taking place in medical education as a journey where the future is a continuing evolution of what has happened in the past three decades or so-an evolutionary approach. Alternatively, we may visualize a more dramatic journey to a different world where there are fundamental changes in medical education, some of which we have difficulty envisaging at this point at the beginning of the 21<sup>st</sup> century- a revolutionary approach. (p. 435)*

I would suggest that today's teaching of future physicians resonates with the latter of Harden's comments and this is a result of a what can be considered a "perfect storm" in medical education that combines the rapidly advancing technology being

developed, the changes in the medical student as a learner and the context in which the learning occurs. The confluence of these circumstances will allow a fundamental cultural shift in teaching the next generation of physicians. This cultural or paradigm shift in medical education pedagogy can be put under the umbrella of moving teaching practices towards a blended learning approach.

In the recent *Futures of Medical Education in Canada Report* (2010) delivered by the Association of Faculties of Medicine of Canada (AFMC) one of the key recommendations was to diversify learning contexts in which physicians must provide continuing medical care in a wide range of institutional and community settings. To achieve this, the learning experiences throughout the MD education program must include a variety of settings ranging from small rural communities to complex tertiary care settings. To enable this mandate, current medical schools must modify current MD curricula and adapt and improve the use of technology (i.e., blended learning). This suggestion aligns with an earlier report of the American Association of Medical Colleges (AAMC) (2007) institute for improving medical education in which it was concluded that medical educators must continue to increasingly use technology to supplement the delivery of learning resources. These two reports and the highlighted recommendations suggest new teaching modalities are required to teach the future physicians and in my opinion the blended learning approach is the ideal method to meet the developing needs of teaching these students.

The focus of this present book is blended learning and this addresses more than just new frontiers in medical education pedagogy but is also at the forefront of many disciplines such as chemistry, nursing, business, and education among others. The scope of this chapter is not to provide a plethora of examples of blended learning or e-learning in medicine but rather to highlight how medical education has evolved to capitalize on blended learning opportunities and

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