Clinical Health Informatics Meets Medical Education

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Clinical Health Informatics (CHI), including integrated electronic medical records (EMR), is playing an increasingly important role in medical practice. It is widely felt that these tools have the potential to improve the quality of medical care and patient outcomes, while increasing efficiency and controlling overall health care costs. Studies have demonstrated the ability of CHI to have a significant impact on practice workflow and communication between physicians and their patients. This has serious implications for medical education, as we aim to prepare our students for future practice in which CHI tools will be utilized regularly.

For this study, we conducted a series of semi-structured key informant interviews with local and nationally recognized leaders in the fields of medical education and informatics. Interviews with “EMR Champions” were also conducted as well. The goal of these interviews was to determine the current status of informatics education in US medical schools, and to conduct a needs assessment of patient-centered informatics training. Special consideration was given to the University of Massachusetts curriculum given that UMass is currently undergoing significant curricular reform while simultaneously implementing an ambulatory electronic medical record.

There is tremendous variation in CHI curricula throughout US medical schools. The majority of schools do not include formal informatics training in their curricula. However, some schools, such as the University of Connecticut, incorporate some informatics training within the family medicine clerkship through the use of a mock EMR. Other programs are further integrated, such as Florida State University, which teaches and evaluated students on informatics “competencies”, which are spread throughout a four-year curriculum.

In conclusion, we would argue that in order to prepare medical students for future practice that includes patient-centered use of CHI, it is essential that the appropriate and effective use of CHI be addressed by undergraduate medical education. Every US medical school, including the University of Massachusetts, should begin to consider how they will incorporate patient-centered CHI into their curriculum.