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Deliberate Apprenticeship in an Emergency Medicine Medical Student Elective, A Pilot Study

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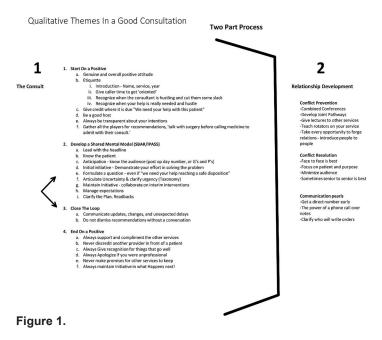
Carmelli, G Fan, L Sinert, R et al.

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#### 12 Curricular and Co-Curricular Social Media-Based Learning During Medical School

Lee T, Rosen C/Beth Israel Deaconess Medical Center, Boston. MA

**Background:** Social media has had a growing presence in medical school, as this generation of medical students almost universally embrace Web 2.0 technologies in their personal and professional lives.

**Objectives:** We assessed the presence of curricular and co-curricular social media-based learning in medical school from our emergency medicine residency applicants.

**Methods:** We conducted a survey of the applicants who interviewed at our emergency medicine residency program. We reported the use of educational technologies in medical school, as well as the presence of a social media policy established by their school. We used proportions and 95% confidence intervals to report our results.

**Results:** Out of 181 emergency medicine applicants who were sent the survey, 96 students responded, resulting in a 53% response rate. Survey results showed that, in their formal medical school curriculum, 73% (63-81%) of students used online courses or simulation, while 29% (21-39%) of students use podcasts, 14% (8-22%) use blogs, and only 3% (1-9%) use Twitter. Additionally, to supplement their education outside the classroom, 81% (70-86%) use podcasts, 54% (44-64%) use blogs, and 14% (8-22%) use Twitter. Other digital technologies used outside of the classroom include medical mobile apps at 81% (70-86%), Wikis at 71% (61-79%), and online simulation at 49% (39-59%). Finally, 36% (28-46%) of students attend medical schools with formal social media guidelines, 24% (17-33%) do not, and 40% (30-50%) do not know.

Conclusions: Medical schools appear to be embracing Web 2.0 technologies, with a majority of applicants reporting that they use online courses or simulation in their formal medical school curriculum. A smaller percentage of applicants report using blogs, wikis, or podcasts in the classroom. However, more than half of students surveyed have supplemented their medical education with these tools. Our study also suggests that more than half of applicants either do not have or do not know if their medical school has a social media policy, representing substantial room for improvement. Medical schools should continue to develop guidelines for social media use and disseminate these among their students, as their online behavior will continue to come under scrutiny by residency program directors, patients, and the public.

13 Deliberate Apprenticeship in an Emergency Medicine Medical Student Elective, A Pilot Study

Carmelli G, Fan L, Sinert R, Willis J/SUNY Downstate/ Kings County Hospital Center, Brooklyn, NY

Background: Apprenticeship is a form of education that opposes the notion of self directed learning for one of a 'legitimate peripheral participation.' A student can learn knowledge, skills and attitudes by working alongside professionals with these skills. The Emergency Department (ED) has a unique learning environment with unstructured workdays, undifferentiated patients and abbreviated workups. Although this is daunting for students, it allows a feeling of semi-autonomy, which, if fostered correctly, can be invaluable in their medical training. Educational guidelines for medical students in Emergency Medicine exist, but don't specifically discuss apprenticeship. There has been literature showing resident preference for apprenticeship in medical students, however, there is a paucity of good evidence to support its use for students in the ED from the student's point of view. Deliberate Apprenticeship (DA) is discussed in the ED by Iyer et al showing positive results, however further data is still needed for more conclusive evidence.

**Objectives:** Compare 2 groups of student's experience in an EM elective, before and after the introduction of the DA program. It is hypothesized that students will prefer the schedule and learning experience significantly with the DA program.

**Methods:** This is a retrospective study, in which we looked back at 22 medical students, as they performed two rotations in the ED at SUNY Downstate between June- September 2015. The 1st rotation used the current rotation scheduling, a templated schedule with no pre-assigned resident pairings. While the 2nd rotation used DA, where students were matched one-on-one with a senior resident. For the study, we analyzed an anonymous survey (Table 1) that was sent to all students after both rotations.

**Results:** The 2 groups of students used a Likert scale from 1-10 to rate their satisfaction on multiple aspects of the rotation. There was no statistical difference in satisfaction scores when the rotation format was changed to a DA. The p-values and confidence intervals are included in Table 2.

**Conclusions:** In this small cohort of students there was no difference in student's preference or satisfaction from our traditional rotation to DA.

Table 1.

Questions	Pre- median (25%, 75%)	Post- (median, 25%, 75%)	p-Value
Satisfaction with Schedule	9.0 (7.25, 9.0)	8.0 (7.0, 9.0)	0.44
Navigation Through ED	9.0 (7.0, 9.0)	9.0 (7.0, 9.0)	0.73
Level of Responsibility	8.0 (7.0, 9.0)	7.0 (5.75, 8.25)	0.36
Overall Learning Experience	9.0 (8.0, 10.0)	8.5 (7.0, 10.0)	0.49
Part of the Team	8.5 (7.0, 10.0	9.0 (7.75, 10.0)	0.94
Overall Experience	9.0 (8.0, 9.25)	9.0 (8.5, 10.)	0.39

Table 2.

Questions	Pre- median (25%, 75%)	Post- (median, 25%, 75%)	p-Value
Satisfaction with Schedule	9.0 (7.25, 9.0)	8.0 (7.0, 9.0)	0.44
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## 14 Describing the Study Habits of Emergency Medicine Residents, A Preliminary Analysis

Murphy A, Conley R, Ng V/Banner- University of Arizona, Tucson, Tucson, AZ

**Background:** Physicians must be independent learners to mature into responsible practitioners. As the variety of available resources expands, physicians must identify effective study strategies. We sought to describe the learning habits of EM residents, specifically the type and quantity of methods utilized, leading up to the 2017 EM In-Training Exam (ITE). As the ITE is predictive of first pass success on the ABEM Qualifying Exam (QE), we aim in the future to provide residents effective strategies that may lead to QE success by analyzing the habits of top ITE scorers.

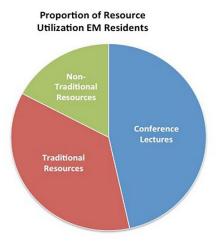
**Objectives:** The purpose of this preliminary study is to describe resident study habits, which will allow us to know areas of study that can be improved upon.

**Methods:** University of Arizona EM residents provided consent for participation and are de-identified by study number assignment. Each resident received a weekly survey on which they reported their study practices from the prior week. Data was collected from February through October 2016 and included the number of hours spent

using traditional (books, journals, question banks) and non-traditional resources (free open access medical education), hours of didactic lecture attended, number of textbook chapters read, study questions completed, and weekly study sessions. We present descriptive data of the resident cohort.

**Results:** Sixty-three of 77 participants (82%) completed an average of 5.4 (range 1-22) weekly surveys from a maximum of 33 weeks. Participation varied from 1-32 residents/week. On average, individual residents attended 3.3 (0-5) hours of weekly conference lecture and spent 2.6 (0-12) and 1.2 (0-6) hours/week studying traditional and nontraditional resources, respectively. Residents read 0.3 (0-3.1) textbook chapters, completed 22 (0-200) study questions, and studied at an average frequency of 2.7 (0-7.9) times weekly.

**Conclusions:** Initial trends indicate that EM residents use weekly conference lectures as their primary source of learning, followed by traditional, then non-traditional resources. Data collection is limited by recall bias and highly variable participation rates. For further study, we plan to report study habit trends of top ITE scorers, as defined by a projected >90% likelihood to pass the QE, after the February 2017 ITE exam.



# 15 Developing Grading Guidelines for The NBME® Emergency Medicine Advanced Clinical Examination

Ross L, Wald D, Miller E, Askew K, Franzen D, Lawson L, Fletcher E/National Board of Medical Examiners, Philadelphia, PA; Lewis Katz School of Medicine at Temple University, Philadelphia, PA; Harvard Medical School, Boston, MA; Wake Forest School of Medicine, Winston-Salem, NC; University of Washington School of Medicine, Seattle, WA; East Carolina University, Greenville, NC

**Background:** The National Board of Medical Examiners (NBME®) provides guidelines to medical schools that