You've Got Mail: Efficacy of an Electronic Mail System as an Educational Strategy in Residency Training

https://escholarship.org/uc/item/4k43m6kx

Western Journal of Emergency Medicine: Integrating Emergency Care with Population Health, 18(5.1)

1936-900X

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2017

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You've Got Mail: Efficacy of an Electronic Mail System as an Educational Strategy in Residency Training

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**Background:** Computer-assisted instruction (CAI) has been used in many areas of medical education to improve teaching and compares favorably with lectures or reading. Our emergency medicine (EM) residency program has been sending a daily emergency medicine-based question electronically to all learners since July 2010.

**Objectives:** To assess a computer-based teaching program utilizing multiple-choice questions sent daily to EM learners. Our study hypothesis was that daily CAI throughout residency training would lead to higher scores on qualifying examinations.

**Methods:** A prospective, self-administered online survey sent to residents, graduates and mid-level providers affiliated with one EM residency program. The survey instrument had 13 open-ended and closed questions to assess the level of training, clinical experience, recommendations, satisfaction with electronic mail system and quality (content) of the CAI. A secondary outcome measure was the annual composite scores on resident inservice exams and written board exams for the past 7 years. To assess the statistical significance of trends in exam scores, we used weighted ?2 test for trend.

**Results:** Sixty-six respondents completed the survey (50% response rate), and included board-certified physicians (59%), residents (26%), mid-level providers (9%), and board-eligible physicians (6%). Respondents have been receiving daily CAI for approximately 4 years, and that they read the CAI daily (54%) or weekly (43%). The majority (97%) felt the content of the CAI was “of high quality and relevant to my practice” and 98% believed the content would “help in preparation for the national written exams.” Overall, 98% replied that the content was balanced across all of the core topics in Emergency Medicine. The main reason for reading the CAI was to keep current with the medical literature (60%), followed by preparing for written tests (29%), and “just for fun” (11%). Despite the overwhelming acceptance of CAI by respondents, the secondary outcome measures (annual composite scores on resident inservice exams and written board exams) showed no significant long-term impact over the last seven years.

**Conclusions:** CAI using a daily question format was well received by clinicians in our residency program. Surprisingly, the majority of respondents used the questions to keep current with medical literature rather than to prepare for written qualifying examinations.