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What's All The Chatter? A Mixed-Methods Analysis of Emergency Physician's Tweets

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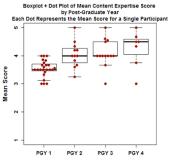**Authors**
Brown, A
Riddell, J
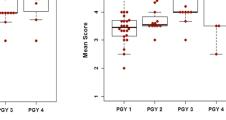Jauregui, J
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Copyright Information

Fig. 1.

Fig. 2.

48 What's All The Chatter? A Mixed-Methods Analysis of Emergency Physician's Tweets

Brown A, Riddell J, Jauregui J, Yang J, Nauman R, Robins L /University of Washington, Seattle, WA

Background: Twitter is growing in popularity and influence among emergency physicians (EP), with over 2,200 self identified EP users. Despite this popularity, there are competing ideas about its value for EPs. Some argue that social media is time wasted. Others assert a virtual community of practice exists among EPs on Twitter sharing a common domain, community, and practice. Deep exploration of the conversation, culture, and content of Twitter use among EPs can help us better understand its value while promoting mindful social media engagement.

Objectives: To explore the nature of EPs conversations on Twitter.

Methods: We performed a mixed methods analysis of publicly available tweets from the 62 most influential EPs on Twitter defined in a previous study. We analyzed tweets from a sample of random days in 2015. In addition to recording quantitative data, we performed qualitative thematic analysis to analyze tweets. We followed best practices in qualitative research, including reflexivity, memoing, and using a diverse team of coders.

Results: 1084 unique tweets were analyzed. The majority of tweets (75%) had some engagement in the form of re-tweets, likes, or replies. Messages were split evenly between new initiations of conversation and replies to other tweets (52%, 48% respectively). Most were related professionally to the broad domain of medical practice (70%), while fewer were social (30%). 79% of tweets were statements, 9% were questions, and 12% answers to questions. We identified several distinct types of tweets. Common observed themes among tweets are presented in Table 1. Self promotion and advertisements were rare, occurring in less than 5% of tweets.

Conclusions: Influential EPs are engaging in professional and social conversations on Twitter. Resources and opinions are being shared and rapport is being built. This data may help inform mindful social media engagement. Next steps include exploring perceptions of value of Twitter to individual faculty and resident users.

Table 1. Observed themes among tweets of influential emergency physicians.

Code	Definition	Exemplary Tweet
Resource summary	A mostly-sterile accounting of the main points of something - including the title of a linked to resource or the summary of a case.	The problem with calf clots? Everyone handles them differently...and @emergencypdx explains why http://blog.ercast.org/the-problem-with-calf-clots/ ... #FOAMed
Rapport Building	Explicitly pursuing relational connection, especially harmonious or sympathetic relation.	@JohnPurakal @mksheehy @UICBrownCoat Really great idea and stellar start. Can't wait for the next video! Keep up the good work
Illumination	A statement that adds substantially to, clarifies, explains, reveals, or enlightens - including their interpretation of data, conclusions, and results. Often in the middle of a conversation.	@FireEMSChief There was probably a little leeway between 30 and 60. Also the breathalysers were reasonably inaccurate for this sort of thing
Opinion	The substantive idea that a person has about something or someone, which is based mainly on their feelings, beliefs, or personal views.	agree w @ketaminh bad hypotension with verapamil I have good results with dilt @MDaware @RAGEpodcast @stemlyns
Humor	Attempting to offer a funny or comical slant to a topic in discussion	As everyone leaves for #smaccus, ketamine use plummets in EDs around the world...
Reflection	Meditation or serious thought about one's character, actions, professional practice, and motives with purpose of understanding self or situation.	Sitting amongst the debris of Monday, picking up pieces of rubble & turning them over. My hands are grubby with start of week dust & decay.
Networking	Interacting to meet professionally, exchange information, or develop contacts - especially to further one's career.	.@PEMEMS @artangelo I'd be happy to look at what you sent, but I meant he should DM me too. I'd be happy to send him resources.

49 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 x^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.

Innovations Abstracts

1 A 3D Printed Model for Simulated Arthrocentesis Training

Henry C, Corbo S, Bronner J/University of Kentucky, Lexington, KY

Background: Arthrocentesis is a commonly performed emergency department procedure. Improper performance