

Study analyzes use of Twitter for public health surveillance of dental pain

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The microblogging service Twitter is a new means for the public to communicate health concerns and could afford health care professionals new ways to communicate with patients. With the growing ubiquity of user-generated online content via social networking Web sites such as Twitter, it is clear we are experiencing a revolution in communication and information sharing. In a study titled "Public Health Surveillance of Dental Pain via Twitter," published in the *Journal of Dental Research*—the official publication of the International and American Associations for Dental Research (IADR/AADR), researchers demonstrated that Twitter users are already extensively sharing their experiences of toothache and seeking advice from other users. Researchers Natalie Heavilin, Barbara Gerbert, Jens Page and Jennifer Gibbs all from the University of California San Francisco (UCSF), Preventive and Restorative Dental Sciences, authored this study.

The researchers investigated the content of [Twitter](#) posts meeting search criteria relating to dental pain. A set of 1,000 tweets was randomly selected from 4,859 tweets over seven nonconsecutive days. The content was coded using pre-established, non-mutually exclusive categories, including the experience of dental pain, actions taken or contemplated in response to a toothache, impact on daily life and advice sought from the Twitter community.

After excluding ambiguous tweets, spam and repeat users, 772 tweets were analyzed and frequencies calculated. Of those tweets, 83% were primarily categorized as a general statement of dental pain, 22% as an

action taken or contemplated, and 15% as describing an impact on daily activities. Among the actions taken or contemplated, 44% reported seeing a dentist, 43% took an analgesic or antibiotic medication and 14% actively sought advice from the Twitter community.

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"This paper highlights the potential of using social media to collect public health data for research purposes," said JDR Editor-in-Chief William Giannobile. "Utilizing Twitter is an interesting, early stage approach with potential impact in the assessment of large sets of population information."

A perspective article titled "Using Social Media for Research and Public Health Surveillance" was written by Paul Eke of the Centers for Disease Control. In it, he states that the extensive reach of Twitter is currently being used successfully in public health to distribute health information to the segments of the public who access Twitter, but there are major limitations and challenges to be overcome before Twitter and its data products can be used for routine [public health surveillance](#).

More information: jdr.sagepub.com/content/early/recent

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