Social Media Beliefs and Usage Among Family Medicine Residents and Practicing Family Physicians

David Klee, MD; Carlton Covey, MD; Laura Zhong, MD

BACKGROUND AND OBJECTIVES: Incorporation of social media (SM) use in medicine is gaining support. The Internet is now a popular medium for people to solicit medical information. Usage of social networks, such as Facebook and Twitter, is growing daily and provides physicians with nearly instantaneous access to large populations for both marketing and patient education. The benefits are myriad, but so are the inherent risks. We investigated the role providers’ age and medical experience played in their beliefs and use of SM in medicine.

METHODS: Using multiple state-wide and national databases, we assessed social media use by family medicine residents, faculty, and practicing family physicians with a 24-question online survey. Descriptive data is compared by age and level of medical experience.

RESULTS: A total of 61 family medicine residents and 192 practicing family physicians responded. There is a trend toward higher SM utilization in the younger cohort, with 90% of resident respondents reporting using SM, half of them daily. A total of 64% of family physician respondents over the age of 45 have a SM account. An equal percentage of senior physicians use SM daily or not at all. Practicing physicians, more than residents, agree that SM can be beneficial in patient care. The vast majority of residents and physicians polled believe that SM should be taught early in medical education.

CONCLUSIONS: The high utilization of SM by younger providers, high prevalence of patient use of the Internet, and the countless beneficial opportunities SM offers should be catalysts to drive curriculum development and early implementation in medical education. This curriculum should focus around four pillars: professional standards for SM use, SM clinical practice integration, professional networking, and research.

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Pew researchers reported that as of September 2013, 73% of online adults use social media (SM) with Facebook (1,310,000 monthly users) and Twitter (645,750,000 active users) being the most popular sites. The number of articles on social media use indexed on PubMed has nearly doubled each year for the last 4 years, and social media policies are being adopted in various health care settings. Since social networks provide physicians with nearly instantaneous access to large populations, they are an efficient way to reach patients for both marketing and patient education.

The advantages of using SM in health care are myriad and were recently outlined in a large review. However, there are also inherent risks. US licensing authorities report numerous professionalism violations by physicians using SM. Kind et al evaluated all 132 US medical schools and found that 95% have a Facebook presence, but only 13 had SM policies, and only five of these defined forbidden/discouraged online behaviors. Are younger physicians utilizing social media more than their predecessors, and are we training physicians how to appropriately use SM professionally? This study was designed to provide insight into family physicians’ use and acceptance of SM as well as assess current professional SM training.

Methods

A survey of 24 original questions was developed, peer reviewed for clarity and flow, and approved by the Michigan State IRB. Questions addressed beliefs, education, and current use of professional SM. During revision, questions requiring a written response such as “List three
reasons why…” were replaced with multiple-choice questions.

We allocated equal amounts of questions (three to four) to address five main study goals: what demographic of provider is using SM, how is SM being used (professional versus personal use), perceptions on whether SM can be beneficial in medicine, providers’ level of training in SM, and if providers feel training would be beneficial during GME. We collected demographic data to assess the role that age of respondents and time since residency graduation might have on survey answers and arbitrarily chose 4 years since graduation to demarcate physician seniority.

To allow easy distribution and data analysis, the survey was distributed online through SurveyMonkey in January 2013, with one follow-up reminder. To reach a large sample of both residents and practicing physicians, the survey was distributed to listserves from Michigan State University Colleges of Human and Osteopathic Medicine, Michigan Academy of Family Physicians, Michigan Academy of Osteopathic Family Physicians, the American Academy of Family Physicians (AAFP) National Research Network, and Uniformed Services Academy of Family Physicians.

Results

Overall, 61 residents and 192 practicing physicians responded (response rate of 21%). See Table 1 for respondent demographics. We found 93% of respondents <45 years old, and only 35% of respondents >45 years old have a SM account. In persons with SM accounts, 44% of those <45 years old reported daily use compared to 24% of those >45.

<table>
<thead>
<tr>
<th>Age</th>
<th>Resident (n=61)</th>
<th>Junior Physician (n=31)</th>
<th>Senior Physician (n=161)</th>
</tr>
</thead>
<tbody>
<tr>
<td>25–34</td>
<td>93.2%</td>
<td>53.3%</td>
<td>4.3%</td>
</tr>
<tr>
<td>35–49</td>
<td>6.5%</td>
<td>36.7%</td>
<td>46.6%</td>
</tr>
<tr>
<td>50+ over</td>
<td>3.3%</td>
<td>6.7%</td>
<td>49.1%</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>47.5%</td>
<td>73.3%</td>
<td>69.6%</td>
</tr>
<tr>
<td>Female</td>
<td>52.5%</td>
<td>26.7%</td>
<td>30.4%</td>
</tr>
</tbody>
</table>

Ninety percent of residents, 77% of junior physicians, and 70% of senior physicians reported having SM accounts (Table 2). As expected, residents and junior physicians reported using SM most frequently; nearly half of resident respondents and one third of junior physicians reported daily use. Senior physicians were more dichotomous, with an equal split between those reporting daily use versus no use at all. Surprisingly, only 15% of resident respondents reported being contacted by a patient for a friend request in the past year, compared to 56% of senior physician respondents.
Two thirds of resident and half of practicing physician respondents believed it was not ethical to be SM friends with patients (Table 3). Interestingly, practicing physician respondents were twice as likely as residents to see the potential benefit of SM for patient care. Although 26% of junior physician respondents reported having had training in SM use in medicine, only about 10% of residents or senior physicians reported similar training. The vast majority of all respondents agreed that SM use in medicine should be addressed in medical school and residency.
Table 3: Social Media Beliefs by Medical Experience

<table>
<thead>
<tr>
<th>Question</th>
<th>Residents (n=61)</th>
<th>Junior Physician (n=31)</th>
<th>Senior Physician (n=161)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SA/A</td>
<td>N</td>
<td>SD/D</td>
</tr>
<tr>
<td>1 It is ethical to be “friends” with patients on SM?</td>
<td>4.9%</td>
<td>27.9%</td>
<td>67.2%</td>
</tr>
<tr>
<td>2 Has your medical decision making been affected by information found about a patient on SM?</td>
<td>3.2%</td>
<td>24.7%</td>
<td>72.1%</td>
</tr>
<tr>
<td>3 SM can be beneficial to patient care.</td>
<td>13%</td>
<td>44%</td>
<td>43%</td>
</tr>
<tr>
<td>4 SM use should be taught in medical school.</td>
<td>64%</td>
<td>13%</td>
<td>23%</td>
</tr>
<tr>
<td>5 SM use should be taught in residency.</td>
<td>68.8%</td>
<td>13.1%</td>
<td>18.1%</td>
</tr>
<tr>
<td>6 Plan to use SM for patient care in the next year.</td>
<td>4.9%</td>
<td>18.1%</td>
<td>77%</td>
</tr>
<tr>
<td>7 I am interested in a 1-hour training course in SM.</td>
<td>41%</td>
<td>37.7%</td>
<td>21.3%</td>
</tr>
</tbody>
</table>

Residents (n=61) Junior Physician (n=31) Senior Physician (n=161)

<table>
<thead>
<tr>
<th>“How may times in the past year have you...”</th>
<th>None</th>
<th>1-3 times/ year</th>
<th>&gt;3 times/ year</th>
<th>None</th>
<th>1-3 times/ year</th>
<th>&gt;3 times/ year</th>
<th>None</th>
<th>1-3 times/ year</th>
<th>&gt;3 times/ year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ... been contacted or “friend requested” by a patient via social media?</td>
<td>85.2%</td>
<td>8.3%</td>
<td>6.5%</td>
<td>58.0%</td>
<td>29.1%</td>
<td>12.9%</td>
<td>43.5%</td>
<td>35.4%</td>
<td>21.1%</td>
</tr>
<tr>
<td>2 ... attempted to contact a patient via SM?</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>93.5%</td>
<td>3.2%</td>
<td>3.3%</td>
<td>94.4%</td>
<td>5.0%</td>
<td>0.6%</td>
</tr>
<tr>
<td>3 ... attempted to gather information about a patient by visiting their SM page?</td>
<td>95.1%</td>
<td>4.9%</td>
<td>0%</td>
<td>96.8%</td>
<td>0%</td>
<td>3.2%</td>
<td>93.8%</td>
<td>6.2%</td>
<td>0%</td>
</tr>
</tbody>
</table>

SA/A—Strongly agree/agree
SD/D—Strongly disagree/disagree
N—Neutral

Discussion

This descriptive study sheds insight into social media use by physicians in the context of age and experience level. As expected, younger (< 45 years old) respondents reported utilizing SM more than older respondents, and residents were more likely to have SM accounts than more
experienced physicians. The fact that our younger and less experienced physicians are more frequently utilizing SM then their trainers demonstrates the need for a collaborative approach to SM curriculum development involving both residents and faculty.

How to appropriately incorporate SM into clinical practice is a question many are still grappling with. In our study, two thirds of resident respondents, but only half of senior physicians, believed that being SM friends with patients is not ethical. Interestingly, senior physicians are also more likely than residents to view SM as being potentially beneficial to patient care. This may reflect their longer-term physician-patient relationships or less negative experiences with SM.

Guidelines for the professional use of SM have been released by several organizations, including AAFP, CDC, Mayo Clinic, and American College of Physicians/Federation of Medical Examiners. An online SM policy database provides links to 267 national and international organizations’ policies. Although guidelines recommend separating personal and professional use of social media, our study showed only a minority of respondents do. Family medicine educators can model and guide learners by using best practices (ie, Mayo Clinic and CDC) to explain how to incorporate SM into communication campaigns, spread health care knowledge, build professional collaborations, and address security issues.

SM has many roles it can play in medicine beyond direct patient communication, including marketing, networking, research, and practice management. Recent reviews have shown that SM can be an effective practice management tool, but only 10% of resident and senior physician respondents report any training in this area.

Our study has several limitations. Since survey response rate was low, study bias over-reporting SM use may be present. The response rate was hindered by only one reminder being sent and respondents’ only knowledge of the project being the cover letter. Despite this limitation, the lack of training in SM reported in this potentially more active group is quite concerning. Our study depended on reported data and did not measure actual use of respondents. Lastly, our sampled population was one of convenience and may not accurately estimate SM use nationally.

It is time for medical schools and residencies to develop a social media curriculum. Our proposed curriculum is based on best practices, such as the Mayo Clinic “Social Media Residency” and CDC’s Social Media Guidelines, and would be structured around four main pillars:

**Professional Standards for SM Use**
Here the learner will be introduced to corporate SM policies, national standards for interactions with patients, staff, and colleagues and potential professional liabilities of SM use.

**SM Clinical Practice Integration**
This component will introduce the wide array of uses of SM for practice promotion, practice management, intra-office communication, patient education, and communication with patients.

**Professional Networking**
Learners will be introduced to the benefits of sites such as Sermo, LinkedIn, and Doximity, which provide world-wide professional networking, case consultation, and forums for discussion on medical news and policy.

**Research**
Learners will be exposed to the use of SM for both collecting data from large populations and tracking public health trends through use of tools such as CDC Chronic Disease GIS (Geographic Information Systems) and via Google mapping.

The proposed curriculum could serve as a template and is intended to be individualized for medical school and residency programs’ audiences.
Patient use of SM platforms for medical information is also growing rapidly. All ages and experience levels of providers will need appropriate early and continued training on the use of SM in medicine. Medical schools and residency programs should develop strategies to incorporate such training.

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References


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