New Professionalism Challenges in Medical Training: An Exploration of Social Networking

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Abstract

Background Innovative online technology can enhance the practice of medicine, yet it also may be a forum for unprofessional behavior.

Objective We surveyed program directors regarding their perceptions and experiences with residents' use of social networking sites (SNS).

Methods In September 2011, we sent an online survey to program directors and associate program directors of pediatrics residency programs within the United States who are members of the Association of Pediatric Program Directors.

Results A total of 162 program directors or associate program directors (representing 50% of residency programs) responded to the survey. One-third of respondents are "very familiar" with SNS and 23% use them "daily or often." Most respondents (70%) rated "friending" peers as "completely appropriate," whereas only 1% of respondents rated "friending" current or past patients as "completely appropriate." More than one half of respondents believe inappropriate behavior on SNS is "somewhat" or "very" prevalent, and 91% are "somewhat" or "very" concerned that the prevalence of inappropriate behavior on SNS may increase. The most commonly reported problematic online activity was posting inappropriate comments about the workplace. Posting of inappropriate comments about self, patients, and staff also was observed. Residency programs commonly educate trainees about SNS during intern orientation (45%), or using written guidelines (29%) and ad hoc remediation (16%).

Conclusions As educators teach trainees principles of online professionalism, appropriate use of SNS needs to be included in the training process. Curricular efforts may be hindered by some program directors' lack of familiarity with SNS.

Editor's Note: The online version of this article contains a table with questions/scenarios about social networking site use and program director responses to them.

Introduction

The definition and measurement of professionalism, both elusive concepts in medical education, have become even more challenging as online social networking sites (SNS) have increased exponentially in popularity and use. Numerous consensus-driven practice guidelines have been published to guide physicians' behavior on SNS,[1–4] and many publications have examined the impact SNS may have on trainee professionalism.[5–7] The latter concern derives from the increased prevalence of SNS engagement among medical students and residents as compared to the faculty who oversees their training.[8–11] Although SNS can yield invaluable opportunities for learning and patient care, unprofessional behaviors have been reported in this context as well.[12–14] Owing to the relationship between unprofessional behavior among physicians-in-training and subsequent state medical board disciplinary action,[15–17] medical educators must take seriously trainee lapses in professionalism related to SNS.[3]

Despite an emerging literature, investigation of SNS use in pediatrics residency training remains limited. This training setting poses unique challenges and warrants deliberate study for several reasons. First, pediatrics residents care for adolescent and young adult patients and work closely with the parents of these young patients, all of whom have come of age in the era of SNS. The pervasiveness of SNS in the pediatrics practice setting necessitates explicit attention to the concomitant potential for unprofessionalism online. Although pediatrics program directors have been previously surveyed,[9] program direc-

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tors' direct accountability for professionalism education makes this group of medical educators a particularly robust population for study.[18] The personal and professional stressors inherent to the residency experience are known to conspire against professionalism[19]; therefore, unprofessional behavior online may be more problematic in graduate medical education.

There are few studies regarding interactions between physicians and their patients on SNS. One publication from the psychiatry literature addresses this topic,[7] yet psychiatrists already receive robust training related to professional boundaries. On the other hand, pediatricians' training on this subject may be inadequate, especially in the face of high SNS use among pediatrics patients and their family members. The potential for lapses in professionalism resulting from pediatrics trainees' interactions with patients on SNS remains understudied.

Pediatrics program directors (PDs) have been tasked with educating our trainees in the 6 core competencies, including professionalism. Recent studies indicate that formal curricula in ethics and professionalism are uncommon in pediatrics residency training.[20,21] We hypothesized that pediatrics residency PDs agree on the online behaviors that are unprofessional, and that they have encountered pediatrics residents' unprofessional use of SNS. We also hypothesized that pediatrics PDs are relatively unfamiliar with SNS, and that few programs or institutions offer formal curricula addressing online professionalism. To test these hypotheses, we conducted a survey of pediatrics residency PDs and associate program directors (APDs) to ascertain their baseline familiarity with SNS, experiences with trainee unprofessionalism on SNS, perceptions of appropriate use of SNS, and strategies for teaching their trainees about online professionalism.

What was known

Use of social networking sites (SNS) by physicians is increasing, as are reports of inappropriate uses of these new media.

What is new

Some program and associate program directors have limited familiarity with SNS; many are concerned about rising prevalence of inappropriate uses of SNS by trainees.

Limitations

Single-specialty study limits generalizability; respondent anonymity reduces ability to interpret program and institutional data on prevalence of SNS use, and the percentage of institutions with SNS policies.

Bottom line

Given the prevalence of SNS use by trainees, education about appropriate and inappropriate uses should be part of resident education.

Methods

Study Population

Individuals eligible for our study included PDs and APDs of pediatrics residency programs. These individuals were identified with the help of the Association of Pediatric Program Directors (APPD).

Survey Instrument

The survey instrument included 32 questions, grouped into 5 sections. Most questions had multiple choice or ordinal response formats with a few items allowing responses to be written into a text box. The first section measured respondents' familiarity with and use of SNS as compared to other electronic technologies. The second section measured respondents' ratings of the appropriateness of various resident activities on SNS and explored their experiences with resident unprofessionalism on SNS. The third section asked respondents to report the educational interventions or policies put in place to teach residents professionalism regarding use of SNS. In the fourth section, respondents were asked to react to 4 different scenarios depicting professionalism challenges arising from the use of SNS. The scenarios were fictitious but based on experiences of the investigators in their own roles as PDs. The survey concluded with a section collecting demographic information.

Before conducting the survey, we engaged in pilot testing of the instrument with 6 individuals who were not eligible for participation in the survey but work in pediatrics graduate medical education. As a result of pilot data, the instrument was revised to enhance item clarity and ease of responding. We shared the aims of our study and our survey instrument with the Research and Scholarship Task Force within the APPD, which resulted in further refinements.

Survey Process

The final survey instrument was endorsed and electronically distributed by the APPD in September 2011. An introductory e-mail containing an electronic link to the survey instrument was sent to all eligible PDs and APDs (N = 497). Nonresponders were sent reminder e-mails; in total we sent 3 e-mails over a 4-week period. Respondents' identities were not linked to their survey data. As an added incentive to participate, respondents could enter their own names into a separate data set from which we randomly selected 1 participant to receive a $200 gift card.

The study was approved by the Institutional Review Board at Dana-Farber Cancer Institute.

Statistical Analysis

Statistical analysis used SAS 9.2 statistical software (SAS Inc, Cary, NC). Most of the analyses were descriptive. To

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TABLE 1 **Demographic Characteristics of Responding Program Directors**[a]

Demographic Characteristic	Response, No. (%)
Program director	70 (49)
Associate program director	72 (51)
Male	48 (34)
Demographic Characteristic	**Median Response (IQR)**
Age	44 (37–53)
Years since completing training	15 (7–24)
Years as program director	5 (3–9)
Total no. of residents in program	48 (35–74)

Abbreviation: IQR, interquartile range.

[a] Results may not sum to 162 owing to missing data.

perform bivariate analyses, a Cochran-Mantel-Haenszel test was used to investigate the association of the sex of the respondent or current role in the training program and responses to the survey questions. In addition, the Kruskal-Wallis test or the Wilcoxon rank-sum test was used to investigate the association between responses and continuous demographic characteristics, such as age or number of years served as PD.

Results

Demographics

Our survey response rate was 33% (162 of 497). Respondents represented 50% (99 of 197) of all pediatrics residency programs in the nation. The sample includes 95 women (66%) and has a median age of 44 years (interquartile range, 37–53 years). Other demographic information on respondents is presented in TABLE 1.

Familiarity and Use

Sixty-three respondents (38%) reported being "very familiar" with social networking and 37 (23%) reported personally using SNS "daily or often," and 98 respondents (60%) reported having a social networking page of their own. Respondents are less familiar with and less frequently use SNS as compared to other communication technologies, such as e-mail and texting.

Program Directors' Perceptions of Residents' Social Networking Site Use

Respondents were asked to rate the appropriateness of different resident activities on SNS (TABLE 2). Most respondents gave ratings of "somewhat appropriate" or "completely appropriate" to 4 online activities: friending peers at the same training level (136, 88%); friending former supervisors or teachers (111, 72%); friending former supervisees or learners (107, 71%); and friending

TABLE 2 **Program Directors' Ratings of the Appropriateness of Various Resident Activities on Social Networking Sites**[a]

Online Activity	Completely Inappropriate, No. (%)	Somewhat Inappropriate, No. (%)	Somewhat Appropriate, No. (%)	Completely Appropriate, No. (%)
Access a social network while at work (Facebook, MySpace, etc)	36 (24)	73 (48)	31 (21)	11 (7)
Connecting with friends via social networks while at work (aka, "friending")	43 (28)	68 (45)	32 (21)	9 (6)
Friending colleagues or peers at the same training level	4 (3)	15 (10)	27 (17)	109 (70)
Friending current supervisors or teachers	39 (26)	51 (33)	43 (28)	19 (13)
Friending current supervisees or learners	34 (22)	59 (39)	44 (29)	16 (10)
Friending former supervisors or teachers	11 (7)	32 (21)	62 (40)	49 (32)
Friending former supervisees or learners	12 (8)	31 (21)	64 (42)	43 (29)
Friending current patients or their families	139 (91)	12 (8)	0 (0)	2 (1)
Friending former patients or their families	103 (67)	42 (27)	7 (5)	2 (1)
Friending hospital or administrative staff (eg, nursing, respiratory therapy, clerical staff)	19 (13)	40 (26)	53 (35)	39 (26)

[a] Results may not sum to 162 owing to missing data.

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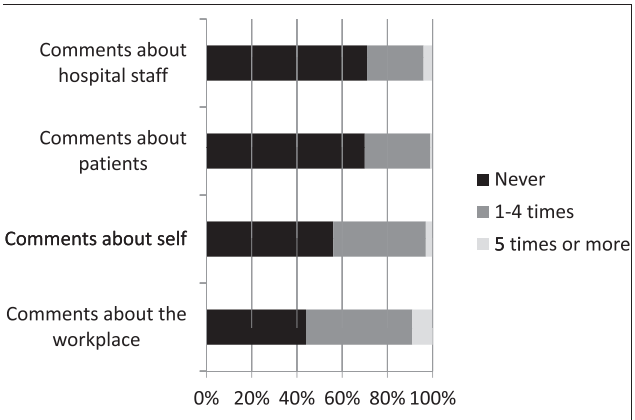

FIGURE **Program Directors' Reports of the Incidence of Inappropriate SNS Postings From Residents Over the Last Year**

other hospital staff (92, 61%). On the other hand, most PDs gave ratings of "somewhat inappropriate" or "completely inappropriate" to the remaining 6 activities included in our survey: accessing SNS while at work (109, 72%); connecting with friends via SNS while at work (111, 73%); friending current supervisors or teachers (90, 59%); friending current supervisees or learners (93, 61%); friending current patients or their families (151, 99%); and friending former patients or their families (145, 94%). Indeed, PDs expressed nearly uniform disapproval of the latter 2 activities.

Program Directors' Experiences With Inappropriate Resident Behavior on Social Networking Sites

Respondents were asked to report the number of times within the last year in which residents were *known* to have engaged in various inappropriate activities on SNS (FIGURE). The most commonly reported problematic online activity was posting inappropriate comments about the workplace (68 respondents report 1 to 4 instances [47%] and 13 respondents report 5 or more instances [9%]). The posting of inappropriate, online comments about self, patients, and staff also was observed by a modest proportion of the respondents at least 1 to 4 times in the last year. Over the previous year, 52 respondents (34%) have counseled 1 to 3 residents about lapses in professionalism related to SNS. In that same time, 16 respondents (11%) have included written documentation of such lapses in the files of 1 to 3 residents. In general, 97 respondents (65%) believed inappropriate behavior on SNS is "somewhat" or "very" prevalent and 141 (91%) were "somewhat" or "very" concerned that these behaviors may become more common.

Education and Policy

Eighty-one respondents (55%) stated that their institution has an SNS policy, and 37 (25%) were unsure of whether such a policy existed. Residency programs educated trainees about SNS and online professionalism via intern orientation (67, 45%); written guidelines (43, 29%); ad hoc remediation (23, 16%); faculty development (18, 12%); and monitoring of residents' behavior online (17, 9%). Sixteen institutions (11%) had a dedicated online professionalism curriculum.

Social Networking Scenarios

After evaluating several SNS scenarios (provided as online supplemental material), respondents rated "friending" patients and posting content about patients as always inappropriate. Ninety-one percent (133 respondents) expressed disapproval of residents posting negative thoughts about their workplace. Forty-one respondents (29%) believed it was acceptable for PDs and APDs to access the SNS profiles of applicants for the residency program.

Bivariate Analyses

We investigated whether certain demographic characteristics (sex, current role in the training program, total years served as an APD or PD, age, number of residents in the training program, and years since completing residency training) influenced subjects' responses to key survey questions. Being an APD was significantly associated with higher familiarity with social networking, yet it was also associated with not knowing whether the residency program had a policy on social networking ($P = .048$ and .02, respectively). Longer years of service as an APD or PD was significantly associated with the absence of a program-level policy on social networking ($P = .002$). Younger age was significantly associated with having higher familiarity with SNS and also higher frequency of SNS use ($P = .008$ and .01, respectively). Moreover, younger respondents were more likely to report having a policy on social networking. ($P = .04$). Sex of the respondent and number of residents in the training program were not associated with any of the survey questions.

Discussion

Our national study of pediatrics residency PDs and APDs demonstrates that online unprofessionalism among pediatrics residents is fairly common, with more than half of our sample having encountered inappropriate online content posted by residents in the last year. This finding corroborates data from other specialties about the incidence of inappropriate behaviors on SNS.[12,22] Given the less frequent use of SNS by PDs and APDs than trainees, we suspect that these results likely underestimate the *actual* incidence of such lapses.[23]

Interestingly, despite the prevalence of SNS use, less than half of our sample has adopted any of the 6 educational strategies we asked about in our survey, and a quarter of our sample did not know if their institution has a

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policy to guide online behavior. Research done in another setting has uncovered inadequate educational interventions and hospital policies,[12] which may derive from educators' unfamiliarity with SNS as compared to their learners. Because millennial learners' experience with SNS surpass that of their teachers, PDs and faculty may struggle to devise curricula and policy in this area. Therefore, the process of designing these interventions must be a collaborative one, blending input from *both* medical educators and trainees.

Our study revealed that the PDs and APDs in our sample were infrequent users of SNS. This unfamiliarity may yield an overly restrictive approach to this technology. Given the prevalence of SNS use among trainees, medical educators may move beyond simply saying ''no'' and may need to define and role model professionalism on SNS for their trainees.[24] This is of particular importance in pediatric training owing to the high prevalence of SNS use among pediatrics patients and their parents. In addition, as the use of ''patient portals'' and ''e-visits'' increase to meet the needs of ''meaningful use,''[25,26] it will become essential to train physicians in appropriate electronic communication with patients, some of which may occur via SNS.

Our study found high levels of consensus about what constitutes unprofessionalism online. PDs and APDs voiced unequivocal disapproval of certain online activities, such as the friending of patients or family members or using SNS to post comments or observations about the workplace, unbecoming photos, unprofessional language, or patient information or images.

The subject of professional interactions between pediatricians, patients, and family members has been understudied. We demonstrated that PDs in our sample are overwhelmingly opposed to the friending of patients or family members. Do residents agree with their PDs about what constitutes professional conduct on SNS? To date, no studies have explored how pediatrics residents define professionalism using SNS and what online behaviors they deem inappropriate. Data from some specialties demonstrate that residents may hold diverse opinions on key issues such as how SNS may alter the physician-patient relationship and professional boundaries.[7,27] Future work should be done to collect data across specialties to inform the graduate medical education community of trainees' perspectives. A more thorough understanding of whether and how trainees' views are concordant with that of medical educators will be needed to engage in effective curriculum development about SNS.

Limitations to this study include the fact that we surveyed only pediatrics PDs and the findings may not be generalizable to other specialties. Also, the lack of availability of demographic data about nonresponding PDs reduces the ability to generalize within pediatrics. We invited PDs and APDs to complete an anonymous survey and may have multiple respondents from the same institution/program, which affects the interpretation of some data, such as the number of programs having policies or curricula about online professionalism.

Conclusion

We found that pediatrics PDs are encountering lapses of professionalism involving residents' activity on SNS, and that curricular offerings aimed at guiding residents' behavior online are currently uncommon. The lack of familiarity with SNS on the part of PDs and others responsible for educational programs may hinder the development of effective curricula on this subject. Future work is needed to measure how residents define professionalism on SNS, and to identify useful and beneficial ways in which SNS can augment medical education. Finally, finding agreement on the definition of unprofessionalism in the use of SNS that rings true across specialties would facilitate the development of policies and curricula that can be applied throughout the graduate medical education community.

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