Opinions of Students from a Brazilian Medical School Regarding Online Professionalism

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INTRODUCTION: Unprofessional online behavior by medical students or physicians may damage individual careers, and the reputation of institutions and the medical profession. What is considered unprofessional online behavior, however, is not clearly defined and may vary in different cultures.

OBJECTIVES: To determine the frequency with which students from a Brazilian Medical School come across ten given examples of unprofessional online behavior by medical students or physicians, and gather the opinions of participants regarding the appropriateness of these behaviors.

METHODS: A cross-sectional survey of 350 students from the Medical School of Bahia, Brazil. Only those who had a profile in social media were included in the final analyses.

RESULTS: 336/350 (96.0 %) medical students kept a profile in social media. Only 13.5 % reported having discussions about online professionalism during ethics classes. They reported witnessing the investigated examples of unprofessional online behavior with varying frequencies, ranging from 13.7 % for “violation of patient’s privacy” to 85.4 % for “photos depicting consumption of alcoholic beverages”. Most participants felt neutral about posting “pictures in bathing suits”, whereas the vast majority rated “violation of patient’s privacy” as totally inappropriate. When presented with a case vignette illustrating violation of patients’ privacy (publication of pictures of hospitalized children or neonates in social media), however, most participants felt neutral about it. Participants considered all investigated examples of unprofessional online behavior more inappropriate if carried out by doctors rather than by students.

CONCLUSIONS: Medical students are witnessing a high frequency of unprofessional online behavior by their peers and physicians. Most investigated behaviors were considered inappropriate, especially if carried out by physicians. Participants were not able to recognize the publication of pictures of hospitalized children or neonates in social media as cases of violation of patients’ privacy. Further studies are needed to determine if an academic curriculum that fosters online professionalism will change this scenario.

KEY WORDS: cultural differences; ethics; medical education—attitudes and psychosocial; medical education—professionalism; survey research.

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INTRODUCTION

The ubiquitous use of social media such as Facebook by medical students and physicians is raising new ethical dilemmas for the medical profession. Medical students and physicians utilize these tools to post diverse contents, including personal, academic and professional matters. Given the public nature of social media, published content may become accessible to other colleagues, educators, coworkers, future employers, regulators and patients.¹ Therefore, the publication of material that may be interpreted as unprofessional may negatively impact careers, as well as the image of institutions and of the medical profession as a whole.^{2,3}

What constitutes unprofessional online behavior for medical students and physicians, however, is certainly a matter of debate, and may be influenced by cultural variations. Publications that violate patients’ privacy and confidentiality are likely to draw almost universal opposition, as they infringe on HIPAA (Health Insurance Portability and Accountability Act) laws in the United States (US) and the code of medical ethics in most countries. Nevertheless, there may be a margin for subjectivity in determining if a post clearly violates patients’ privacy and confidentiality. Other types of online behavior, such as use of foul language and publication of photos in which bathing suits are worn or depicting alcohol consumption, are even more controversial and subject to cultural influences.

Recently, the use of social media by medical students and physicians has become the subject of research. Several studies conducted in the US indicate that a considerable amount of inappropriate content is published.^{1,3–6} Chretien et al. surveyed deans of student affairs of 130 US medical schools, and found that 60 % of respondents reported incidents of students posting unprofessional online content.³ The most common incidents involved posts containing use of profanity (52 %), discriminatory language (48 %), depiction of intoxication (40 %), sexually suggestive

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material (38 %) and violation of patient confidentiality (13 %). These incidents resulted in informal warnings (67 %) and even dismissal (7 %).³ Greysen and coworkers conducted a national survey of State Medical Boards and found that 92 % of respondents had received at least one report of violation of online professionalism by a physician. Serious disciplinary actions, such as license restriction, suspension or revocation, were reported by 56 % of the State Medical Boards.⁷ This scenario has led the American Medical Association, American College of Physicians and Federation of State Medical Boards to develop guidelines for physicians on how to conduct themselves in social media.⁸⁻¹¹ In Brazil, there has been very little investigation on this matter, and there is a lack of regulation and educational policies devoted to this subject.

The Brazilian medical education system differs from the US system in some aspects. Brazilian students enter medical school straight from high school without having to go through college; those who pass the entrance examination at first attempt may begin medical school as young as 18 years old. Although medical school in Brazil is longer than in the US, with a minimum duration of 6 years, Residency is not mandatory for those who choose to go into Primary Care. Therefore, graduating students may begin unsupervised medical practice as young as 25 years of age. The teaching of Medical Ethics varies across different schools. At the Medical School of Bahia, formal classes of the humanistic-ethical axis permeate the first 4 years of the course, totaling 187 h, but online professionalism is not part of the curriculum.

Herein, we aimed to determine the frequency with which students from the Medical School of Bahia come across ten given examples of unprofessional online behavior by medical students or physicians; and to gather the opinion of participants regarding the appropriateness of these behaviors.

METHODS

Sample. A non-probabilistic sample of medical students from the Medical School of Bahia of the Federal University of Bahia, Brazil. Participants who did not maintain a profile in social media were excluded from the final analyses.

Design. A cross-sectional survey.

Survey. Survey questions were inspired by the authors' observations of real posts by medical students and physicians, as well as by literature data. A pilot study with ten medical students was conducted to test the survey; these students were not included in the final analysis. To maintain anonymity of the responders, the survey did not contain identifiable data, such as name, date of birth or any

identification number. The questionnaire contained three main sections. The first had questions on demographic data and explored the participants' opinions on the potential repercussion of posts in social media by medical doctors and students. Answers were either "yes", "no", "not sure", or were graded on a 0 to 5 Likert scale. The second part of the survey contained questions regarding how often the participants had come across posts in social media by medical students or physicians encompassing ten examples of unprofessional online behaviors, ranging from violation of patients' privacy to photos depicting alcohol consumption. In another set of questions, we asked participants to rate the appropriateness of each one of these ten unprofessional behaviors on a Likert scale ranging from -3 (totally inappropriate) to +3 (totally appropriate), with zero as the neutral value, if carried out by a physician or a medical student. In the third part of the survey, participants were asked to rate the appropriateness of a case vignette illustrating violation of patients' privacy on a Likert scale ranging from -3 (totally inappropriate) to +3 (totally appropriate), with zero as the neutral value.

Ethical Issues. Surveys were completed individually and anonymously by medical students in the classroom, at the end of a class. The survey was applied by a fellow medical student (N.A.A.C.) and not by teachers, to avoid any subliminal pressure to participate. Participation was voluntary and those who completed the survey signed an informed consent form. The study protocol was approved by the Institutional Review Board of Professor Edgard Santos University Hospital.

Statistical Analysis. Data were summarized by counts, relative frequencies and median, and presented in table or box plot format. For questions regarding the appropriateness of ten examples of unprofessional posts, a new variable was created aiming to summarize the opinion of each participant on all ten items. This new variable consisted of the sum of the Likert scale values for each item, and varied from -30 (if a participant rated all ten examples -3, i.e., totally inappropriate) to +30 (if a participant rated all ten examples +3, i.e., totally appropriate). Questions aiming to differentiate the opinion of the participants regarding the appropriateness of posts according to whether they were made by medical students or doctors were compared using the nonparametric Wilcoxon Signed Ranks test. A p value <0.05 was considered statistically significant. All analyses were performed using the *Stata 12.1* software.

RESULTS

We interviewed 350 students, corresponding to 35.6 % of the student body of the Medical School of Bahia. Of these, 336 (96.0 %) reported having a profile in social media and were included in the final analyses.

Overall, participants' median age was 22 years old; at school entry and exit, median ages were 20 and 26 years old, respectively. There was a slight preponderance of males. There was good representation of the first 4 years, but only 10.8 % of the sample was comprised of students from the last 2 years (sub internship). Only 13.5 % of the students admitted to having discussions about online professionalism during ethics classes. The majority admitted to identifying themselves as medical students and the Federal University of Bahia as their institution, in social media. About one-third of participants said they did not want to befriend patients in social media (Table 1).

Most participants referred some level of concern about the potential repercussions of their posts in social media on their careers, on the images of the institutions to which they are affiliated and on the views of potential employers. The majority believed that medical students and physicians should have a higher level of concern with the appropriateness of their posts than students and professionals of other areas (Table 2). It should be noted, however, that a significant proportion of participants indicated that they are not concerned about the potential repercussions of their posts in social media on their career (14.3 %), and do not believe that medical students (21.3 %) or doctors (15.7 %) need to be more concerned with the appropriateness of their posts than students or professionals of other areas.

Table 1. Demographic Characteristics and Social Media Usage by 336 Undergraduates of a Brazilian Medical School

Variables	n/total (valid%)
Age	
18–20	94/335 (28.1)
21–23	160/335 (47.8)
24–26	57/335 (17.0)
≥ 27	24/335 (7.2)
Male gender	188/336 (56.0)
Academic year	
1 st	73/332 (22.0)
2 nd	71/332 (21.4)
3 rd	59/332 (17.8)
4 th	93/332 (28.0)
5 th	11/332 (3.3)
6 th	25/332 (7.5)
Has the theme “Online Professionalism” been discussed at any moment during Ethics classes?	
Yes	45/334 (13.5)
No	245/334 (73.4)
Not sure	44/334 (13.2)
Identify yourself as a medical student on your profile	288/334 (86.2)
Identify your medical school or university in your profile	301/333 (90.4)
After graduation, would you like to befriend your patients in social media?	
No	112/334 (33.5)
Maybe	195/334 (58.4)
Yes	27/334 (8.1)

Obs.: Percentages may not add up to 100 % due to rounding. Missing data ranged from 1 (for the variables “age”) to 4 (for the variable “academic year”)

Table 3 shows the percentages of participants that had witnessed ten examples of unprofessional posts by medical students or physicians in social media. Participants had witnessed all examples investigated, with frequencies ranging from 13.7 % for “violation of patient confidentiality” to 85.4 % for “photos depicting consumption of alcoholic beverages”.

Then, we investigated the following question: how appropriate did participants think such posts were had they been posted by medical students or doctors (Table 4)? On average, participants considered all ten examples of posts somewhat inappropriate, but there were clear differences among different contents. For example, the vast majority of participants considered posts that violate patient's privacy or that make negative references to patients to be totally inappropriate. Participants' rejection of the other examples was less intense. Moreover, the majority felt neutral regarding students posting “pictures in bathing suits” and only 31.5 % considered it inappropriate for students. If doctors were the authors of the posts, participants' responses were slightly more negative for all items (Table 4).

To obtain a measure that summarizes the opinion of participants on the appropriateness of these ten examples of unprofessional posts, we created a new variable for each participant consisting of the sum of the Likert scale values that they attributed to each one of the posts. This new variable ranged from −30 (if a participant chose −3 for all ten items) to +30 (if a participant chose +3 for all ten items). Figure 1 shows the distribution of this new variable, comparing participants' opinions for posts by medical students or doctors. Participants considered these behaviors significantly more inappropriate if carried out by doctors than by students (median [interquartile range]; −21 [−23 to −10] if posted by doctors versus −16 [−28 to −13.5] if posted by students; $p < 0.001$).

To test whether participants are able to detect cases of violation of patient's privacy, we ended the survey with a case vignette. The vignette referred to the publication in social media of pictures of medical students performing playful activities with hospitalized children or holding newborns in the neonatal unit. As shown in Table 5, participants felt neutral regarding the appropriateness of the behavior displayed in the case vignette, even if a doctor posted the picture.

DISCUSSION

The popularity of social media has increased substantially in recent years, especially among young people. Data from the Brazilian Institute of Public Opinion and Statistics reveals the widespread use of these tools by Brazilians: in 2011, 87 % of the 77.8 million Internet users had a profile in social media.¹² In agreement with this national trend, we observed a very high use of social media among medical students of the Medical School of Bahia, totaling 96 % of

Table 2. Opinions of 336 Undergraduates of a Brazilian Medical School Regarding the Potential Implications of Posts in Social Media by Medical Students and Physicians

	Scale n/total (valid%)						Median
	0	1	2	3	4	5	
1. Level of concern with the impact of your posts on your career*	48/335 (14.3)	20/335 (6.0)	52/335 (15.5)	71/335 (21.2)	71/335 (21.2)	73/335 (21.8)	3
2. Impact posts might have on the image of institutions†	17/335 (5.1)	14/335 (4.2)	52/335 (15.5)	66/335 (19.7)	82/335 (24.5)	104/335 (31.0)	4
3. Impact posts might have on the opinion of potential employers‡	25/334 (7.5)	32/334 (9.6)	51/334 (15.3)	65/334 (19.5)	78/334 (23.4)	83/334 (24.9)	3
4. MS need to be more concerned with the appropriateness of their posts than other students§	71/334 (21.3)	27/334 (8.1)	27/334 (8.1)	62/334 (18.6)	64/334 (19.2)	83/334 (24.9)	3
5. Doctors need to be more concerned with the impact of their posts than other professionals	52/332 (15.7)	20/332 (6.0)	25/332 (7.5)	48/332 (14.5)	74/332 (22.3)	113/332 (34.0)	4

Obs.: MS = medical students. Percentages may not add up to 100 % due to rounding. Missing data ranged from 1 (for questions 1 and 2) to 4 (for question 5).

Original survey questions:

*1. What is your level of concern with the repercussions of your posts in social media on your career? (0 to 5 Likert scale, where 0 = absent; 5 = maximum)

†2. What is the level of repercussion you perceive posts in social media by medical students or physicians might have on the image of the institutions to which they are affiliated? (0 to 5 Likert scale, where 0 = absent; 5 = maximum)

‡3. Do you consider that posts in social media by medical students or physicians might influence the opinion of potential employers? (0 to 5 Likert scale, where 0 = absolutely not; 5 = most definitely)

§4. Do you think that medical students need to be more concerned about the appropriateness of their posts in social media than students of other areas? (0 to 5 Likert scale, where 0 = no; 5 = yes, much more concerned).

|| 5. Do you think that doctors need to be more concerned about the appropriateness of their posts in social media than professionals of other areas? (0 to 5 Likert scale, where 0 = no; 5 = yes, much more concerned).

participants. This frequency is similar to that encountered in other studies.^{13–15}

Despite the popularity of social media among students of the Medical School of Bahia and the potential for misuse, only 45/334 (13.5 %) students recalled being lectured on how to conduct themselves ethically online. Ethics classes permeate the first 4 years of the academic curriculum at the Medical School of Bahia, but at the time of data collection, the theme of online professionalism was not formally included in the discipline's program. Consequently, we suspect that those 45

students based their answers on informal small group discussions. This reveals a lack of school policies directed to this issue, which may be due to unfamiliarity of those responsible for the academic curriculum with what is happening in social media. Corroborating this hypothesis, Chretien et al. showed infrequent use of social media by deans of American medical schools.³ Osman et al. used the term “generation gap” to describe this difference in social media use between professors and students.¹⁵ Because of this generation gap, conscientious medical students are in a special position to lead the movement towards online professionalism. In a joint initiative, the Australian Medical Association Council of Doctors-in-Training, the New Zealand Medical Association Doctors-in-Training Council, the New Zealand Medical Students' Association and the Australian Medical Students' Association produced a very interesting guide to online professionalism for medical practitioners and medical students.¹⁶

Despite the lack of formal training on online professionalism, the vast majority of students from the Medical School of Bahia reported some level of concern about the potential impact of their posts on their individual careers (85.7 %), the reputation of institutions (94.9 %) and opinion of potential employers (92.7 %). Similarly, 76 % of the medical students studied by Osman et al. stated that using Facebook might compromise their professional integrity.¹⁵ This concern is justified by recent studies reporting disciplinary actions directed at medical students and physicians in response

Table 3. Frequency with Which Undergraduates from a Brazilian Medical School Have Witnessed Ten Examples of Unprofessional Online Behavior by Medical Students or Physicians (N=336)

Examples of unprofessional online behavior investigated	Nº yes/total (valid%)
1. Violation of patient's privacy	46/336 (13.7)
2. Reference to patients in a negative tone	67/336 (19.9)
3. Reference to the medical profession in a negative tone	201/336 (59.8)
4. Reference to the medical school, colleagues or doctors in a negative tone	228/334 (68.3)
5. Sexual or sexually suggestive content	141/336 (42.0)
6. Use of foul language	262/335 (78.2)
7. Apology of alcohol use	270/336 (80.4)
8. Photos depicting consumption of alcoholic beverages	287/336 (85.4)
9. Photos suggesting alcohol intoxication	247/336 (73.5)
10. Pictures in bathing suit	280/336 (83.3)

Obs.: Missing data ranged from 1 (question 6) to 2 (for question 4)

Table 4. Opinions of 336 Undergraduates from a Brazilian Medical School on the Appropriateness of Ten Examples of Unprofessional Online Behavior if Carried out by Medical Students (MS) or Medical Doctors (MD)

Examples of posts/behaviors	Author	Level of appropriateness scale, n/total (valid%) (−3 = max. inappropriateness; 0 = neutral; 3 = max. appropriateness)							Median
		−3	−2	−1	0	1	2	3	
1. Violation of patient's privacy	MS	292/334 (87.4)	7/334 (2.1)	3/334 (0.9)	23/334 (6.9)	1/334 (0.3)	3/334 (0.9)	5/334 (1.5)	−3
	MD	298/331 (90.0)	8/331 (2.4)	2/331 (0.6)	13/331 (3.9)	1/331 (0.3)	2/331 (0.6)	7/331 (2.1)	−3
2. Reference to patients in a negative tone	MS	268/332 (80.7)	18/332 (5.4)	9/332 (2.7)	26/332 (7.8)	2/332 (0.6)	1/332 (0.3)	8/332 (2.4)	−3
	MD	288/331 (87.0)	12/331 (3.6)	5/331 (1.5)	16/331 (4.8)	0/331 (0.0)	2/331 (0.6)	8/331 (2.4)	−3
3. Reference to the medical profession in a negative tone	MS	145/332 (43.7)	25/332 (7.5)	37/332 (11.1)	105/332 (31.6)	7/332 (2.1)	3/332 (0.9)	10/332 (3.0)	−2
	MD	210/331 (63.4)	29/331 (8.8)	21/331 (6.3)	54/331 (16.3)	5/331 (1.5)	4/331 (1.2)	8/331 (2.4)	−3
4. Reference to the medical school, colleagues or doctors in a negative tone	MS	172/332 (51.8)	52/332 (15.7)	35/332 (10.5)	60/332 (18.1)	7/332 (2.1)	2/332 (0.6)	4/332 (1.2)	−3
	MD	225/328 (68.6)	30/328 (9.1)	19/328 (5.8)	39/328 (11.9)	4/328 (1.2)	5/328 (1.5)	6/328 (1.8)	−3
5. Sexual or sexually suggestive content	MS	166/330 (50.3)	38/330 (11.5)	35/330 (10.6)	72/330 (21.8)	9/330 (2.7)	3/330 (0.9)	7/330 (2.1)	−3
	MD	206/330 (62.4)	27/330 (8.2)	27/330 (8.2)	57/330 (17.2)	3/330 (0.9)	4/330 (1.2)	6/330 (1.8)	−3
6. Use of foul language	MS	106/333 (31.8)	33/333 (9.9)	64/333 (19.2)	109/333 (32.7)	11/333 (3.3)	3/333 (0.9)	7/333 (2.1)	−1
	MD	157/331 (47.4)	41/331 (12.4)	39/331 (11.8)	78/331 (23.6)	6/331 (1.8)	3/331 (0.9)	7/331 (2.1)	−2
7. Apology of alcohol use	MS	109/332 (32.8)	55/332 (16.6)	50/332 (15.1)	101/332 (30.4)	9/332 (2.7)	2/332 (0.6)	6/332 (1.8)	−1
	MD	176/330 (53.3)	44/330 (13.3)	41/330 (12.4)	58/330 (17.6)	3/330 (0.9)	3/330 (0.9)	5/330 (1.5)	−3
8. Photos depicting consumption of alcoholic beverages	MS	87/332 (26.2)	45/332 (13.6)	45/332 (13.6)	133/332 (40.1)	12/332 (3.6)	5/332 (1.5)	5/332 (1.5)	−1
	MD	130/330 (39.4)	40/330 (12.1)	49/330 (14.8)	96/330 (29.1)	5/330 (1.5)	4/330 (1.2)	6/330 (1.8)	−2
9. Photos suggesting alcohol intoxication	MS	135/331 (40.8)	49/331 (14.8)	44/331 (13.3)	87/331 (26.3)	8/331 (2.4)	4/331 (1.2)	4/331 (1.2)	−2
	MD	184/330 (55.8)	43/330 (13.0)	37/330 (11.2)	54/330 (16.4)	2/330 (0.6)	3/330 (0.9)	7/330 (2.1)	−3
10. Pictures in bathing suit	MS	49/333 (14.7)	22/333 (6.6)	34/333 (10.2)	179/333 (53.8)	16/333 (4.8)	7/333 (2.1)	26/333 (7.8)	0
	MD	94/330 (28.5)	35/330 (10.6)	32/330 (9.7)	131/330 (39.7)	12/330 (3.6)	6/330 (1.8)	20/330 (6.1)	0

Obs.: Percentages may not add up to 100 % due to rounding. Missing data ranged from 2 (for question 1 for MS) to 8 (for question 4 MD)

to unprofessional online behavior, ranging from formal disciplinary hearings to suspension, prohibition of registration (physicians),⁷ or expulsion (students).^{3,7}

Despite these concerns, unprofessional online behavior by medical students or physicians is very common. In our study, 13.7 % of participants reported having witnessed posts containing “violation of patient confidentiality”. Other types of behavior were much more commonly reported, reaching 83.3 % for “pictures in bathing suit” and 85.4 % for “photos depicting consumption of alcoholic beverages”. Other studies also have sought to quantify the occurrence of inappropriate online behaviors.^{3–6} In the study by Chretien et al., for example, 60 % of American medical schools

referred to incidents involving unprofessional postings by their students and 13 % of them corresponded to cases of violation of patients' privacy.³ This violation was also observed by Lagu et al.; however, the posts were carried out by people who identified themselves as medics or nurses.⁶

In our study, more than 90 % of participants considered inappropriate posts that involve violation of patients' privacy. However, we observed that a significant proportion of participants did not recognize the publication in social media of photos of medical students playing with hospitalized children or holding newborns in the neonatal unit as a violation of patients' privacy. This is very concerning, since there is high consensus among directors of American State

Figure 1. Distribution of the summary variable representing the overall opinion of students from a Brazilian Medical School on the appropriateness of ten examples of unprofessional online behavior, stratified by the authors of the posts: medical students versus doctors. The box plots show the distribution of the summary variable, varying from -30 to +30. Scale: -30 = max. inappropriateness; 0 = neutral; +30 = max. appropriateness.

Medical Boards that publication of patients' photos without explicit consent is a cause for investigation.¹⁷ The reasons behind this lack of recognition are not completely clear. Didn't participants recognize children or neonates as patients? Were they confused by the playful context? Do they believe there can be nothing irregular with a "cute" picture? An interesting study by Thompson et al. offers yet another explanation.⁴ These authors examined the social media pages of American medical students and residents and found that all cases of violations of the patients' privacy involved photos with children. Interestingly, all photos had been taken in the context of medical mission trips to developing countries; none of them occurred inside American medical institutions. The authors posited that these photos constitute attempts to demonstrate acts of compassion, altruism and portray a pro-social image. A similar phenomenon might occur at Brazilian medical schools, where students practice in public institutions used by patients of very low socioeconomic status.

Medical students and physicians must uphold the highest professional principles in any medical context.⁴ It is important that this is taught and practiced early, since recent data demonstrate the unprofessional use of the Internet does not cease after graduation.¹⁸ Our data showing participants' opinions that physicians should be more wary of their publications in social media than medical students is somewhat worrisome in this regard, because it may reveal an impression on the part of students that the professionalism switch will somehow turn on after graduation. Perhaps the very young age of our students might be contributing to this behavior, as they may not be mature enough to perceive their actions as those of future physicians. This also increases the responsibility of our schools in educating these young individuals on how to conduct themselves ethically online.

In Brazil, there are no specific guidelines to online professionalism for physicians and medical students. Nevertheless, the Code of Medical Ethics of the Brazilian Federal Medical Council (BFMC) does prohibit physicians from referring to identifiable clinical cases and exhibiting pictures of patients on professional ads or in the general media (even with the patient's permission).¹⁹ The resolution 1.974/2011 of the BFMC, which specifically mentions the use of Internet by physicians, is restricted to the topic of medical advertisement.²⁰ At the international level, however, there are several initiatives to help physicians navigate in social media.^{8-11,16,21,22} In the US, the Federation of State Medical Boards, the American College of Physicians and the American Medical Association published guidelines for the appropriate use of social media by physicians, including issues of privacy and confidentiality of patients.⁸⁻¹¹

Among the examples of unprofessional online behaviors investigated in this study, the most commonly observed by medical students were use of foul language, pictures in which they are wearing bathing suits and those related to alcohol consumption. These behaviors drew much less rejection than violation of patients' privacy. The publication by medical students of pictures in which they are wearing bathing suits was actually considered appropriate by most

Table 5. Opinion of Students from a Brazilian Medical School on the Appropriateness of a Hypothetical Case Vignette (N=336)

Case vignette	Author	Level of appropriateness scale, n/total (valid%) (-3 = max. inappropriateness; 0 = neutral; 3 = max. appropriateness)							Median
		-3	-2	-1	0	1	2	3	
Photos of patients (children and neonates) posted in social media*	MS [†]	46/334 (13.8)	30/334 (9.0)	39/334 (11.7)	112/334 (33.5)	29/334 (8.7)	33/334 (9.9)	45/334 (13.5)	0
	MD [‡]	59/333 (17.7)	34/333 (10.2)	42/333 (12.6)	103/333 (30.9)	25/333 (7.5)	30/333 (9.0)	40/333 (12.0)	0

Obs. [†]Medical student; [‡]Medical doctor. Percentages may not add up to 100 % due to rounding. Missing data was 2 for MS and 3 for MD

*"We have encountered pictures on the Facebook profiles of medical students, in which they were dressed as clowns while performing playful activities with hospitalized children. We also observed the publication of pictures of students holding newborns during academic activities in the neonatal unit." Question 1: How appropriate do you consider the publication of these pictures in social media by medical students? Question 2: How appropriate do you consider the publication of similar pictures in social media by physicians? (Likert scale from -3 to 3, where -3 = max inappropriateness; 0 = neutral; 3 = max. appropriateness)

participants. Indeed, such behaviors are much less likely to undergo investigation by the proper authorities.¹⁷ However, it is not clear if patients who view these posts will have the same understanding. In fact, public expectations of physician behavior may be different according to the sociocultural context. Therefore, entities interested in implementing strategies to enhance online professionalism might need to consider the sociocultural context before adopting guidelines developed in a different country. Nevertheless, when creating a self-image in social media, medical students and physicians should assume that all publications will be public and permanent. Finally, although local culture may influence online behavior, one should consider the global nature of the Internet and of the medical profession while using social media.

Conflict of Interest: The authors declare that they do not have a conflict of interest.

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