Medical Education Journal Club

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Associate Professor

Medical Education Journal Club

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Activity Directors / Planners / Reviewers / Faculty

Name	Role	Disclosure / Resolution
Carla S. Lupi, MD	Activity Director/Planner/ Speaker	Dr. Lupi reports no relevant financial relationships.
Vivian Obeso, MD	Planner/Speaker	Dr. Obeso reports no relevant financial relationships.
Christian Castro, PhD	Planner	Mr. Castro reports no relevant financial relationships.
Melissa Ward-Peterson, MPH	Planner	Ms. Ward-Peterson reports no relevant financial relationships.

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Disclosure Information
Faculty / Speaker

- Education in Medicine
  - Owner
  - www.educationinmedicine.blogspot.com
  - @Ed_in_Med

- DeVry Medical, International
  - Paid consultant

Learning Objectives

- Be able to list the search results for one medical education database consulted in the design of a course or teaching session.

- Conduct a critical appraisal of an article in the medical education research.

- Identify the applicability of research results to one's own course or teaching session.

Medical Education Journal Club

- Establish a forum for faculty to share and discuss recent literature in medical education

- Use best evidence in medical education literature to evaluate and advance current practices in our educational program

- Establish a culture that promotes curricular innovation and change in an evidence-based manner

- Stimulate educational scholarship

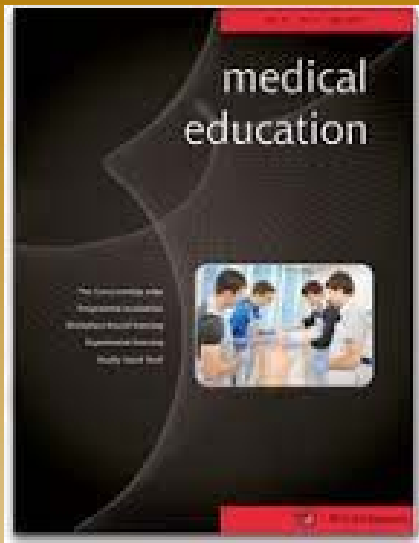**FIU** | **Herbert Wertheim College of Medicine**

Objectives for Today's Session

- Learn definitions of social media

- Know the difference in attitudes of students, residents, and faculty towards social media

- Be comfortable discussing issues around social media with our learners

What is appropriate to post on social media? Ratings from students, faculty members and the public

Anuja Jain,[1] Elizabeth M Petty,[2] Reda M Jaber,[3] Sean Tackett,[4] Joel Purkiss,[3] James Fitzgerald[5] & Casey White[6]

OBJECTIVES The purpose of this study was to ascertain what medical students, doctors and the public felt was unprofessional for medical students, as future doctors, to post on a social media site, Facebook®. The significance of this is that unprofessional content reflects poorly on a student, which in turn can significantly affect a patient's confidence in that student's clinical abilities.

METHODS An online survey was designed to investigate the perceptions of University of Michigan medical students, attending physicians and non-health care university-wide employees (that serves as a subset of the public) regarding mock medical students' Facebook® profile screenshots. For each screenshot, respondents used a 5-point Likert scale to rate 'appropriateness' and whether they would be 'comfortable' having students posting such content as their future doctors.

RESULTS Compared with medical students, faculty members and public groups rated images as significantly less appropriate (p < 0.001) and indicated that they would be less comfortable (p < 0.001) having posting students as future doctors. All three groups rated screenshots containing derogatory or private information about patients, followed by images suggesting marijuana use, as least appropriate. Images conveying intimate heterosexual couples were rated as most appropriate. Overall, the doctor group, females and older individuals were less permissive when compared with employee and student groups, males and younger individuals, respectively.

CONCLUSIONS The most significant conclusion of our study is that faculty members, medical students and the 'public' have different thresholds of what is acceptable on a social networking site. Our findings will prove useful for students to consider the perspectives of patients and faculty members when considering what type of content to post on their social media sites. In this way, we hope that our findings provide insight for discussions, awareness and the development of guidelines related to online professionalism for medical students.

Background / Introduction

Background

Definition of Social Media

forms of electronic communication (such as Web sites for social networking and microblogging) through which users create online communities to share information, ideas, personal messages, and other content (pictures and video)

http://www.merriam-webster.com

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Background

Definition of Social Media

Refers to interaction among people in which they create, share, and/or exchange information and ideas in virtual communities and networks.

Depends on mobile and web-based technologies to create highly interactive platforms through which individuals and communities share, co-create, discuss, and modify user-generated content.

http://en.wikipedia.org/wiki/Social_media

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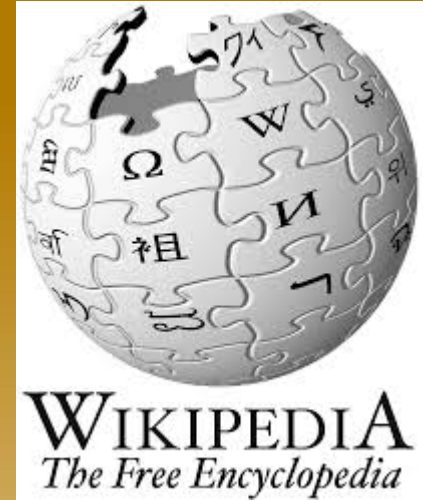# Background

Definition of Social Media

A group of Internet-based applications that build on the ideological and technological foundations of Web 2.0, and that allow the creation and exchange of user-generated content.

Kaplan AM, Haenlein M. Users of the world, unite! The challenges and opportunities of social media". *Business Horizons* 2010; 53 (1): 61.

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Background

On-line Social Media is a new concept, but growing fast

- Facebook started in 2004

  Facebook has about 1 billion users (worldwide)

  Facebook is the most-visited social media site in the US

- Twitter started in 2006

  Twitter has over 200 million active users

  Averages 400 million tweets per day

- YouTube started in 2005

  YouTube has over 1 billion unique visitors every month

  Gangnam Style was the first YouTube video to surpass 1 billion views

  YouTube users upload 100 hours of content every 4 minutes

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Background

- 90% of practicing doctors have a Facebook page (personal or professional)
- 100% (n=132) of US medical schools have a website
- 10.6% of medical schools (14/132) have Twitter accounts.

Kind T, et al. Social media policies at US medical schools. *Med Educ Online* 2010;15.

Background

- 95.45% (126/132) of medical schools had any FB presence.
- 25.76% (34/132) had official medical school pages
- 71.21% (94/132) had student groups on FB
- 54.55% (72/132) had alumni groups on FB

Kind T, et al. Social media policies at US medical schools. *Med Educ Online* 2010;15.

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Background

AMA Policy on Social Media

Use privacy settings to safeguard personal information and content to the fullest extent possible on social networking sites.

Routinely monitor their own Internet presence to ensure that the personal and professional information on their own sites and content posted about them by others, is accurate and appropriate.

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Background

AMA Policy on Social Media

Maintain appropriate boundaries of the patient-physician relationship when interacting with patients online and ensure patient privacy and confidentiality is maintained.

Consider separating personal and professional content online.

Recognize that actions online and content posted can negatively affect their reputations among patients and colleagues, and may even have consequences for their medical careers.

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Background

Chretien KC, et al. It's your own risk: medical students' perspectives on online professionalism. Acad Med 2010:85(Suppl 10):S68–71.

Study at the University of Virginia (2010)

Six focus groups (64 students) were conducted to determine medical student perspectives on online posting.

Students disagreed as to what was inappropriate to post. (Except for HIPAA violations)

They had online identity conflicts and were concerned about online activity risks and lack of personal control. Students desired recommendations for appropriate content and suggested raising awareness through discussion.

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Background

Chretien KC, et al. Online posting of unprofessional content by medical students. JAMA 2009;302(12):1309-1315.

National survey of medical school deans of Student Affairs

78/130 schools responded

60% (47/78) reported incidents of students posting unprofessional behavior:

13%	violations of patient confidentiality
52%	student use of profanity
48%	frankly discriminatory language
39%	student intoxication
38%	sexual suggestive material

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Background

Thompson LA, et al. Protected health information on social networking sites: ethical and legal considerations J Med Internet Res 2011; 13(1): e8.

- Cross-sectional analysis of all residents and students at the University of Florida (2007, 2009)

- Identified all with FB profile

- 49.8% (1023/2053) had a profile

- 12 instances of patient violations (all photos of care given that included patients. All were in LDN)

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Hypothesis / Aim / Question

"The aim of the study was to compare these three groups' (medical students, faculty, and the public) perceptions of simulated Facebook postings by medical students."

"to understand both similarities and differences in opinions of what is considered to be 'unprofessional' Facebook content by these three groups."

Methods

Subjects

3 groups (from the University of Michigan)

Medical Students

      1st through 4th year, currently enrolled

Medical school faculty members

Non-doctor / non-student employees

      included all school/units of Univ Michigan system

Survey

Email survey

- sent via email

- Used 3 list-servs (UM med students, UM faculty, UM employees)

- Used an incentive (drawing for five $20 and one $100 Amazon gift cards)

- All participant answers were anonymous otherwise

Response

1546 people responded

Denominator was unknown

So, response percentage is unknown…

Data gathered

Four Sections

- Demographic information
- Facebook usage patterns
- Mock Facebook screenshots
- Attitudes towards online professionalism

Data gathered-Demographics

Gender

Age

Race

Self-identified as health care professionals or non-health care professionals

Health care professionals

     Medical students

     Medical faculty

     Other faculty

     Other health care professional

When was the last time you had an appointment with a physician?

Are you a residency program director?

Data gathered-FB usage

Do you know what FB is?

Do you have a FB account?

Do you use other social networking sites?

How many hours do you spend on FB each week?

What do you use FB for?
    Networking
    Keeping in touch with friends or classmates
    Sharing pictures

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Data gathered-mock FB pages

Data gathered-Professionalism

Has your institution addressed online professionalism?

Do you feel more guidelines would be of value?

Disciplinary action?

Do you feel like you should act professionally even when you are not performing professional duties?

What is your overall concern?

Survey

- Pilot tested with:
  - 20 medical students
  - 20 faculty members
  - 20 public

- http://www-personal.umich.edu/~purkissj/FacebookSurvey.pdf.

Human Subjects

- Granted exemption by University of Michigan IRB

- IRB application explicitly stated that the Mock FB pages did not contain <u>actual</u> University of Michigan students

- Participants were not told that the FB pages were not real

Data Analysis

- Descriptive statistics

- Chi-squares to compare the groups

- Cramer's V to determine effect size
    - 0.01   small
    - 0.06   moderate
    - 0.14   large

- Linear regression analysis to compare overall assessment of the FB pages, group, and demographics

Results

Table 1 Respondent demographic characteristics (unless noted otherwise, results presented as: count, %)

	All respondents	Medical students	Medical faculty	Public (non-HCPs)
Total	N = 1421	237, 16.7	206, 14.5	978, 68.8
Age				
mean, (range in years)	38.8, (19–76)	25.4, (20–38)	45.1, (29–76)	40.8, (19–70)
Sex				
Male	526, 37.0	102, 43.0	114, 55.3	310, 31.2
Female	895, 63.0	135, 57.0	92, 44.7	668, 68.3
Race				
White	1110, 78.7	154, 65.0	165, 80.1	791, 80.9
Black	52, 3.7	5, 2.1	2, 1.0	45, 4.6
Hispanic	33, 2.3	5, 2.1	3, 1.5	25, 2.6
Asian	188, 13.3	65, 27.4	32, 15.5	91, 9.3
Mixed*	28, 2.0	5, 2.1	3, 1.5	20, 2.0
No response	10, 0.7	3, 1.3	1, 0.5	6, 6.1
Year in med school				
1st		71, 30.0		
2nd		22, 9.3		
3rd		64, 27.0		
4th		73, 30.8		
Other		7, 3.0		

* Includes everyone citing more than one ethnic group as well as 'other' but not those who did not respond

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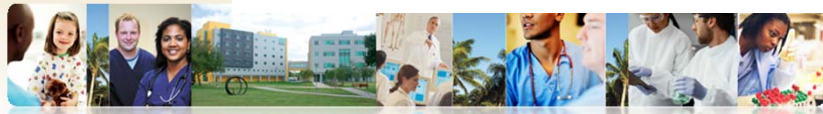FIU | Herbert Wertheim College of Medicine

*Table 2 Respondent utilisation of Facebook® by group**

	Total (n = 1421) %	Medical students (n = 237) %	Medical faculty members (n = 206) %	Public (non-health care professionals) (n = 978) %	χ^2	d.f.	p Value	Cramer's V
Networking								
Yes	33.1	28.4	20.5	36.5	22.7	2	< 0.001	0.13
No	66.9	71.6	79.5	63.5				
Keeping in touch with friends								
Yes	92.1	98.2	88.6	91.0	16.8	2	< 0.001	0.11
No	7.9	1.8	11.4	9.0				
Communicating with classmates/colleagues								
Yes	48.2	64.9	30.3	46.6	54.4	2	< 0.001	0.20
No	51.8	35.1	69.7	53.4				
Meeting new people								
Yes	4.6	2.7	1.5	5.7	9.8	2	0.007	0.08
No	95.4	97.3	98.5	94.3				
Sharing pictures								
Yes	60.2	73.0	44.7	59.1	36.7	2	< 0.001	0.16
No	39.8	27.0	55.3	40.9				
Fun								
Yes	35.5	40.1	19.7	36.8	24.8	2	< 0.001	0.13
No	64.5	59.9	80.3	63.2				
Other								
Yes	11.2	4.1	8.3	13.7	19.3	2	< 0.001	0.12
No	88.8	95.9	91.7	86.3				

* Groups differed significantly for each usage type (p < 0.05 for every Chi-squared test). However, observed values of Cramer's V, an effect size measure of the strength of association, indicate fairly weak associations (i.e. 0.1 = Small, 0.3 = Moderate, 0.5 = Large). Cramer's V = $\sqrt{\chi^2/(n [k-1])}$, where k = The smaller of the number of rows or columns

Table 2 Respondent utilisation of Facebook® by group*

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Networking								
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No	66.9	71.6	79.5	63.5				
Keeping in touch with friends								
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No	95.4	97.3	98.5	94.3				
Sharing pictures								
Yes	60.2	73.0	44.7	59.1	36.7	2	< 0.001	0.16
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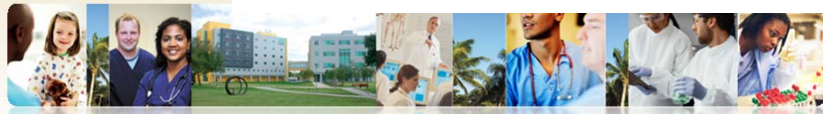
Table 3 Association between respondent group and evaluation of Facebook® content

	OVERALL (n = 1413)		Students (n = 237)		Public (n = 973)		Faculty (n = 203)		Kruskal–Wallis H′ and Dunn–Bonferroni Post-Hoc Tests*				
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	H′	d.f.	2-sided Sig. (p-value)	η²: global effect size [†]	Significantly Dfferent Groups: Dunn–Bonferroni Post-Hoc Comparisons
Appropriateness ratings (lower mean scores indicate lower appropriateness ratings)[‡,§]													
OVERALL (29-image average)	2.69	0.66	2.84	0.60	2.68	0.69	2.53	0.58	28.62	2	< 0.001	0.02	S vs. P (p = 0.005)
													S vs. F (p < 0.001)
													P vs. F (p = 0.001)
Comments on Patients (4- image average)	1.88	0.76	1.97	0.77	1.88	0.78	1.79	0.67	5.63	2	0.060	< 0.01	None – NSD
Marijuana (1 image)	1.94	1.06	2.03	1.08	1.98	1.08	1.66	0.91	18.22	2	< 0.001	0.01	S vs. F (p < 0.001)
													P vs. F (p < 0.001)
Partial Nudity (7-image average)	2.36	0.81	2.52	0.77	2.36	0.84	2.20	0.72	16.98	2	< 0.001	0.01	S vs. F (p = 0.018)
													S vs. F (p < 0.001)
													P vs. F (p = 0.036)
Clinical Picture – Domestic (2-image average)	2.48	1.14	2.33	1.14	2.51	1.16	2.48	1.01	5.33	2	0.070	< 0.01	None – NSD

Appropriateness ratings (lower mean scores indicate lower appropriateness ratings)[+,8]

	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F	df	p		Comparisons
OVERALL (29-image average)	2.69	0.66	2.84	0.60	2.68	0.69	2.53	0.58	28.62	2	< 0.001	0.02	S vs. P (p = 0.005) S vs. F (p < 0.001) P vs. F (p = 0.001)
Comments on Patients (4-image average)													
Marijuana (1 image)	1.94	1.06	2.03	1.08	1.98	1.08	1.66	0.91	18.22	2	< 0.001	0.01	S vs. F (p < 0.001) P vs. F (p < 0.001)
Partial Nudity (7-image average)	2.36	0.81	2.52	0.77	2.36	0.84	2.20	0.72	16.98	2	< 0.001	0.01	S vs. F (p = 0.018) S vs. F (p < 0.001) P vs. F (p = 0.036)
Clinical Picture – Domestic (2-image average)													
Same-Sex Pairs (4-image average)	2.58	0.88	2.82	0.83	2.56	0.90	2.39	0.76	29.38	2	< 0.001	0.02	S vs. P (p < 0.001) S vs. F (p < 0.001) P vs. F (p = 0.023)
Clinical Picture - International (1 image)	2.59	1.42	2.08	1.19	2.80	1.44	2.15	1.30	70.73	2	< 0.001	0.05	S vs. P (p < 0.001) P vs. F (p < 0.001)
Alcohol (8-image average)	2.70	0.87	2.87	0.84	2.69	0.89	2.52	0.75	22.68	2	< 0.001	0.02	S vs. P (p = 0.003) S vs. F (p < 0.001) P vs. F (p = 0.014)
Cigarettes (1 image)	2.80	1.11	2.95	1.09	2.83	1.13	2.52	1.00	16.99	2	< 0.001	0.01	S vs. F (p < 0.001) P vs. F (p = 0.001)
Parties or Dancing (2-image average)	3.35	0.94	3.60	0.86	3.33	0.96	3.16	0.86	28.21	2	< 0.001	0.02	S vs. P (p < 0.001) S vs. F (p < 0.001) P vs. F (p = 0.024)
Comments on Medical School (4-image average)	3.36	0.90	3.78	0.77	3.27	0.92	3.25	0.76	67.85	2	< 0.001	0.05	S vs. P (p < 0.001) S vs. F (p < 0.001)
Opposite-Sex Pairs (3-image average)	3.66	0.73	3.87	0.63	3.65	0.76	3.50	0.65	31.01	2	< 0.001	0.02	S vs. P (p < 0.001) S vs. F (p < 0.001) P vs. F (p = 0.009)

Appropriateness ratings (lower mean scores indicate lower appropriateness ratings)[+,8]

	Mean	SD	Mean	SD	Mean	SD	Mean	SD	F	df	p	ES	Post-hoc
OVERALL (29-image average)	2.69	0.66	2.84	0.60	2.68	0.69	2.53	0.58	28.62	2	< 0.001	0.02	S vs. P (p = 0.005); S vs. F (p < 0.001); P vs. F (p = 0.001)
Comments on Patients (4-image average)													
Marijuana (1 image)	1.94	1.06	2.03	1.08	1.98	1.08	1.66	0.91	18.22	2	< 0.001	0.01	S vs. F (p < 0.001); P vs. F (p < 0.001)
Partial Nudity (7-image average)	2.36	0.81	2.52	0.77	2.36	0.84	2.20	0.72	16.98	2	< 0.001	0.01	S vs. F (p = 0.018); S vs. F (p < 0.001); P vs. F (p = 0.036)
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Clinical Picture - International (1 image)	2.59	1.42	2.08	1.19	2.80	1.44	2.15	1.30	70.73	2	< 0.001	0.05	S vs. P (p < 0.001); P vs. F (p < 0.001)
Alcohol (8-image average)	2.70	0.87	2.87	0.84	2.69	0.89	2.52	0.75	22.68	2	< 0.001	0.02	S vs. P (p = 0.003); S vs. F (p < 0.001); P vs. F (p = 0.014)
Cigarettes (1 image)	2.80	1.11	2.95	1.09	2.83	1.13	2.52	1.00	16.99	2	< 0.001	0.01	S vs. F (p < 0.001); P vs. F (p = 0.001)
Parties or Dancing (2-image average)	3.35	0.94	3.60	0.86	3.33	0.96	3.16	0.86	28.21	2	< 0.001	0.02	S vs. P (p < 0.001); S vs. F (p < 0.001); P vs. F (p = 0.024)
Comments on Medical School (4-image average)	3.36	0.90	3.78	0.77	3.27	0.92	3.25	0.76	67.85	2	< 0.001	0.05	S vs. P (p < 0.001); S vs. F (p < 0.001)
Opposite-Sex Pairs (3-image average)	3.66	0.73	3.87	0.63	3.65	0.76	3.50	0.65	31.01	2	< 0.00	0.02	S vs. P (p < 0.001); S vs. F (p < 0.001); P vs. F (p = 0.009)

Critique / Criticisms
Questions / Flaws

Denominator

- No way to determine a response rate

Single Institution

- Are the students and faculty at the University of Michigan the same as those at HWCOM at FIU?

  Almost for sure, no….

  - Racial and ethnic differences
  - Geographic differences

Fake Facebook posting

Is it possible that the FB posting did not look real enough to serve as a sham?

Using a limited number of shots limits the number of comparison (for example there was only one image each for male-male kissing and female-female kissing)

Survey

- Questions were limited to two areas for comparison
  - Appropriateness
  - Would you want this person as your doctor?

- Lose a lot of nuance here

- It assumes that they would be your doctor now
  - Do you know what your doctor did 30 years ago?
  - It is not posted on FB, but chances are they did something

Change your practice?

- Can we use this to stimulate a discussion between Millennial Generation and the rest of us?

- The Generation effect

  "The characteristics of one age grade cannot be fully understood except in relation to those of other ages. They are only fully explained and understood in terms of each other."

S. Eisenstadt. From Generation to Generation: Age Groups and Social Structure, 3rd edition. 2009, Transaction Publishers.

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Change your practice

- Do people naturally change as they grow older and occupy different roles?

- Does the digital nature of the world now change the way that we approach this?

Questions?

Please complete the CME survey to receive credit for attendance.