

'Have you seen what is on Facebook?'

The use of social networking software by healthcare professions students

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ABSTRACT

Objective: The use of social networking software has become ubiquitous in our society. The aim of this study was to explore the attitudes and experiences of healthcare professional students using Facebook at our school, to determine if there is a need for development of policy to assist students in this area.

Design: A mixed-methods approach was employed, using semistructured interviews to identify themes which were explored using an online survey. A combination of descriptive statistics and thematic analysis was used for analysis.

Setting: Healthcare professions education programmes at a large Canadian university.

Participants: Students of medicine, nursing, pharmacy, speech and language pathology, occupational therapy, physical therapy, dentistry, dental hygiene and medical laboratory Science were invited to participate. 14 participants were interviewed, and 682 participants responded to an online survey; the female: male balance was 3 : 1.

Results: 14 interviews were analysed in-depth, and 682 students responded to the survey (17% response rate). 93% reported current Facebook use. Themes identified included patterns of use and attitudes to friendship, attitudes to online privacy, breaches of professional behaviour on Facebook and attitudes to guidelines relating to Facebook use. A majority considered posting of the following material unprofessional: use of alcohol/drugs, crime, obscenity/nudity/sexual content, patient/client information, criticism of others. 44% reported seeing such material posted by a colleague, and 27% reported posting such material themselves. A majority of participants agreed that guidelines for Facebook use would be beneficial.

Conclusions: Social networking software use, specifically Facebook use, was widespread among healthcare students at our school who responded to our survey. Our results highlight some of the challenges which can accompany the use of this new technology and offer potential insights to help understand the pedagogy and practices of Facebook use in this population, and to help students navigate the dilemmas associated with becoming 21st century healthcare professionals.

ARTICLE SUMMARY

Article focus

■ The use of social networking software has become ubiquitous in our society. Healthcare practitioners and their students have struggled to integrate this new technology with the expectations of professional behaviour.

Key messages

- Social networking software is widespread among healthcare students at our school. This paper highlights the challenges which accompany the use of this new technology, including the posting of unprofessional and inappropriate material online.
- We discuss the dilemma of students wanting to share information in a mixed social network in order to remain popular, while also being wary about how material shared will make them appear.
- We suggest that guidelines for the use of social networking software may help our students deal with this dilemma more effectively.

Strengths and limitations of this study

- Although the survey element of this study had a relatively low response rate, it did gather data from a large number of students training in several different health professions, and we believe it provides an interesting snapshot of attitudes to social networking software at our school. The low response rate to the survey means that we cannot exclude the possibility of response bias and that we cannot easily generalise our findings to the whole population. Given these limitations, we believe that we have shown that use of Facebook is widespread among the healthcare students we studied, and that we have identified areas for education policymakers to focus on.

INTRODUCTION

In recent years, the use of social networking websites such as Facebook, MySpace and Twitter has become ubiquitous in many western countries. At the time of writing, there are over 18.5 million Facebook users in

Canada alone, and over 70% of the Canadian population possesses a Facebook account.¹ Facebook use is highly prevalent among medical students: at least 60% of medical students in the USA and over 70% of medical students in the UK are active users.^{2 3}

A number of authors have written that social networking software has the potential to revolutionise healthcare by increasing interaction between providers and clients and facilitating the free flow of information relating to healthcare.⁴ A recent study among primary care physicians and oncologists demonstrated that a majority of those studied used social networking software to keep abreast of new developments in their field and to share knowledge.⁵ A recent series of articles has called for surgeons to embrace social media as well.⁶

Other authors have called for caution in healthcare providers engaging with social networking software. The software encourages users to share the events of their lives; for individuals training to enter the health professions, such sharing may be in conflict with requirements for confidentiality and professionalism of the profession for which they are training.⁷ Some have suggested that Facebook will lead to an unacceptable blurring of the professional and the personal, and make it difficult to maintain proper boundaries and professional principles.^{8 9} Other authors have gone further and suggested that it may be best for healthcare providers not to engage in social networking online,¹⁰ or that Facebook use should be monitored or policed in some way.^{11 12}

This study grew out of a discussion within our medical school about our own students' use of Facebook, based on a number of incidents in which we thought our students could have used Facebook more appropriately. This led to a debate about how (or indeed if) we should advise our students about using such social networking software. We decided to focus on Facebook use instead of Twitter or MySpace, as this has been shown to be the most widely adopted form of social networking software at the moment.^{6 13 14} Most other studies on online social networking in healthcare education have focused on medical students, but we decided to sample a larger population to obtain a broad snapshot of the use of Facebook in all of our healthcare faculties at our school.

The aim of this study was to explore the attitudes and experiences of healthcare professional students using Facebook at our university, with the aim of determining if there is a need for development of policy or guidelines to assist students with integrating this new technology as they progress in their education.

METHODS

We employed a mixed-methods approach, conducting interviews with a small number of healthcare professions students first to identify important themes related to the use of social networking software, and then developing an online survey which was administered to a larger group.

Semistructured interviews were conducted with healthcare professions students at our university about participants' current use of social networking services. Interview questions were developed by the authors after a review of the literature (see online supplementary appendix 1). Convenience sampling was used for recruitment of interview subjects: participants were contacted through email, inviting voluntary participation in an interview. Students in nursing, medicine, dentistry, pharmacy, dental hygiene, speech and language pathology, occupational therapy and physical therapy were included in the invitation email distribution list and a single reminder email was sent. There were no specific exclusion criteria. Consent was obtained in person by the interviewer. Interviews lasted 30–45 min, and were designed to elicit information about participants' current use of social networking software. Interviews were audio-recorded and transcribed by a research assistant (PK) who then analysed the transcripts to identify common themes using a simple thematic analysis approach. Two other readers (JW and SR) reviewed the transcripts to cross-check the analysis and to refine the themes identified. Consensus was reached by discussion between the three readers. Recruitment of new interview subjects was halted when data saturation was reached and no new themes emerged from new interviews. This was achieved at 14 interviews.

Themes identified from interview data were used to construct an anonymous online survey (see online supplementary appendix 2). Items included a range of single-best-choice, Likert-scale, ranking and free response items. All items were revised by testing with health professions students before the survey was distributed. The survey was distributed by email to students in all the healthcare professions listed above. Participants were contacted through email, inviting voluntary participation in the survey; participants who had been interviewed were free to respond to the survey too.

Descriptive statistics were used to describe responses to each question. Free-text responses were analysed to identify common themes and representative quotations using the same readers and techniques described above for analysis of interview transcripts. This study reports our findings relating to students' use of Facebook, unprofessional behaviours observed online and about the need for guidelines relating to social networking software for healthcare professionals. Ethics approval was obtained from the local Health Research Ethics Board.

RESULTS

The study took place in fall 2011. The 14 participants who attended for interview were from the following faculties: medicine: 6; nursing: 5; pharmacy: 1; physical therapy: 1; dentistry: 1. We identified the following themes at interview: patterns of Facebook use, attitudes to friendship on Facebook, attitudes to online privacy, breaches of professional behaviour posted on Facebook

(including use of alcohol and drugs, crime, obscenity, patient/client information, sexual content and nudity, criticism of others) and attitudes to guidelines relating to Facebook use.

A total of 682 students responded to the survey, a response rate of approximately 17% (estimated total number of students: 3984). The number of respondents, response rate and gender balance from each faculty are shown in table 1. As expected, women outnumbered men in all the faculties sampled. In the following section, quotations from free-response items are presented to highlight particular themes identified, while percentages in brackets are used to indicate the proportion of respondents to the online survey who expressed agreement with a particular theme or statement observed. Additional representative quotations are presented in table 2.

Ninety-three per cent of respondents reported having a Facebook account; 76% described checking their account at least two times per day, with 39% checking at least five times a day. When asked 'who is on your friend list?', respondents indicated the following categories: other students 96%, previous work colleagues 73%, current work colleagues 44%, previous instructors 21%, current instructors 5%, previous patients/clients 2%, current patients/clients 0.3%.

Respondents were asked to consider the types of material that they would consider unprofessional in principle if posted to Facebook (table 3). Ninety-nine per cent of respondents agreed that it would be unprofessional to post images or text which could be used to identify a patient. Forty per cent of respondents said it was unprofessional to post anything at all relating to a patient/client, even without identifying information.

A girl I know openly posts "quotes of the day" from patients she works with in mental health. She does not say who said them, and they are funny, but since I work there too, the info is identifying. I think it crosses a line.

Over 80% considered posts or images relating to the following activities unprofessional: illicit drug consumption, criminal activity, overt sexual content, partial

nudity and condescending or superior behaviour. At least 50% considered the following unprofessional: critical comments about a teacher, drunkenness/excessive drinking, swearing and obscene gestures. Less than 10% objected to posts or photos depicting drinking in moderation, and to posting current relationship status.

Plenty of students in my class post pictures of heavy drinking, many swear or have inappropriate sexual innuendo in their status updates.

Forty-four per cent of respondents described seeing material they considered unprofessional which had been posted to Facebook by a colleague (153 responses). The most common and specific examples given included criticism of teachers and programmes (56 instances), inappropriate photographs (47 instances), depictions of drunkenness (27), posts about patients (21) and negative comments about patients (13). Other examples included parties attended (9), swearing (8), references to sex (7), inappropriate posts about work (5), negative comments about other professions (5) and consumption of illegal drugs (3). There were also descriptions of errors, negative comments about coworkers, inappropriate behaviour in uniform, nudity, criminal activity, obscene gestures, racist and sexist comments and pictures of a cadaver (1–2 of each).

I know a medical student who often posts complaints about her faculty and also personal patient information.

Twenty-seven per cent of respondents admitted to posting material which, with hindsight, they now considered unprofessional (81 responses). The most common transgressions described were posting inappropriate pictures (15 instances), swearing (13), criticising teachers and programmes (9), drinking (9), posting comments open to misinterpretation (8) and parties (5). There were three instances of posting sexual content, two posts about patients and one example of expressing negative views about a patient.

I've wrote personal posts before that probably shouldn't have been posted.

Table 1 Respondents to the online survey

Faculty	Number of respondents to the online survey	Approx response rate (%)	Female:male ratio
Medicine	232	33	58:42
Nursing	200	15	95:5
Pharmacy	82	16	73:27
Speech and language pathology	54	24	94:6
Occupational therapy	43	11	81:19
Physical therapy	24	5	83:17
Dentistry and dental hygiene	24	8	61:39
Medical laboratory science	23	20	78:22
Total	682	17	77:23

Table 2 Representative quotations

Patient confidentiality	<p>Disclosing confidential information about a patient to the general public is never permissible. One fellow student ... described the age of the patient, gender, and exactly what injuries they sustained in detail ... she did not disclose the name of this patient, but if my Grandma had an accident and was taken to this small rural hospital last night, it would not be hard to figure out that was who she was talking about. If you want to 'debrief' to your friends on a one-to-one level about what you saw or experienced that it is fine. But putting it up as your 'status' is inappropriate and not necessary. She was doing it so that all the other non-nurses on her friends list can see what a cool job she has</p> <p>When people say they had, 'the worst patient ever today', or when they discuss 'helped deliver a baby in the front lobby of the hospital today'.... I know if that had been me I would not want someone posting it all over Facebook</p>
Activities considered unprofessional	<p>Many students post pictures of them partying on the weekend, which could generate negative opinions about the healthcare profession because it is not the behavior expected of a professional</p>
Unprofessional material observed from others	<p>A lot of nursing students share their frustrations of the faculty on Facebook, and will tell positive stories about their time at clinical</p> <p>My most appalling example is photos of a peer with a cadaver that were posted on Facebook</p>
Unprofessional material posted by self	<p>I have unprofessional pictures on Facebook, and don't see any conflict with this in my professional life as a soon to be registered nurse</p> <p>The odd time this has happened has been when I've been intoxicated.</p> <p>In my first career, around 5 years ago (when FB was relatively new), I posted on a colleagues wall asking about a client. I was asking in a caring manner, but still should not have. Lesson learned. Now I do not have work colleagues on my FB nor would I write about a client.</p> <p>Something inappropriate was said in class by a professor and I joined a thread poking fun at that professor. I did remove the post when I realized what I had done</p>
Unprofessional material affecting self	<p>I'm sure a lot of the pictures of me during my undergrad could be considered unprofessional</p>
Freedom of speech	<p>If patients and clients have the right to have their personal lives and information kept from being disclosed, then me being a health professional—I also have a personal life. One that is enjoyed and should be able to be enjoyed freely without interference or judgment</p>
Risk	<p>Facebook is tons of fun... but a scary place! Way too much info floating around. People can make things up, or post photos of you without your consent</p> <p>I think one has to be very careful with Facebook, and often I don't think people realize the negative affects it can have</p> <p>Many people can misjudge a post on a social media site or take it out of context, resulting in a false negative image for the user</p>
Control	<p>I have no control over who snaps a picture of me doing something in my personal life and posting them on Facebook</p> <p>You have to be squeaky clean everywhere in life, or Facebook could be used to haunt you.</p> <p>A friend posted pictures of me and some of my other friends acting silly, and I was upset that she had not earlier asked for my consent or the consent of my friends who were against the pictures being posted, so I made her remove the pictures</p> <p>There are photos of me being silly/drunk from earlier years of my life on Facebook, but I have untagged myself. There is nothing really bad because I would never let someone take a really unprofessional picture of me</p>
Attitudes to guidelines	<p>I firmly support the idea of social media guidelines imparted by the university and/or professional licensing body</p> <p>Some guidelines should be in place to set a standard but definitely not a list of 'Don'ts' that would restrict our freedom</p> <p>Guidelines could help by making things more concrete, though in the end, I think things are up to one's professional judgment</p>

Forty-four per cent described having material posted about them which they felt made them look unprofessional (137 examples). The vast majority of these instances related to the posting of photographs online (106); the most common areas of concern related to alcohol consumption (39) and attending parties (15); there were also examples of nudity (4), sexual material (3) and information pertaining to a relationship (1).

Eighteen per cent of respondents reported that the posting of such material had made them consider withdrawing from the use of social networking software.

People have posted hilarious photos from parties and other events some of which depict me as being intoxicated but once again I'm hoping that due to privacy settings the general public cannot see these.

Table 3 Types of material participants would consider unprofessional in principle if posted to Facebook

Online behaviour	Percentage classifying as 'unprofessional'
Posts that disclose information about a patient/client	99
Posts depicting illicit drug consumption	94
Petty criminal activity	91
Photos of a patient/client	91
Posts involving overt sexual content	86
Attitudes of superiority or condescending behaviour (assumed because of professional status)	73
Posts containing partial nudity	82
Obscene gestures in photos (middle finger, etc)	72
Status updates describing substantial alcohol consumption at a party	69
Pictures of an individual clearly acting drunk	68
Endorsements of a pharmaceutical or health product without a conflict of interest disclosure	58
Critical comments about a lecturer or preceptor	69
Swearing or foul language	60
Critical comments of course material, your programme, faculty or the university	49
Posts describing an interaction with a patient/client, that do not reveal any identifying information	40
Making opinionated comments about controversial issues	22
Displaying membership in online groups dealing with controversial issues	17
A picture of an individual having one alcoholic beverage	9
Displaying your current relationship status	5

As a group, respondents were ambiguous about posting material on Facebook. Some students considered it intrusive that faculty should even be enquiring about their Facebook use, as they considered this too personal a topic for discussion. Others expressed concern that faculty's expectations around their online activities were unreasonable. Others took the view that they should be able to post what they like as long as they could control who has access.

Just because we are in a health care profession does not mean that we do not have freedom of speech.

Students expressed the view that posting material to Facebook was associated with some risk to their current position and future prospects.

I am aware that my behaviour in all domains affects my reputation, so I am careful about who I am seen with and what I do.

Many students described censoring themselves and removing material they had posted or been tagged in previously, or requesting to have their name removed from photos posted by other users.

I went through my Facebook photos and took down the photos I had posted with me in party pictures from my first undergrad degree. If I even looked drunk or questionable, or if the party had a funny, (but inappropriate theme) then I took those pictures down as well. I don't generally post a lot of comments, and none that I regret, but a picture is still worth a thousand words.

Ninety-eight per cent of respondents described having altered the privacy settings of their Facebook account on at least one occasion; the reasons given for this included protection from strangers 99%, not trusting Facebook 62%, risk of viewing by potential employers 52%, advice from peers 30% and advice from instructors 17%.

I don't really understand the privacy settings, so I just made them strict, just in case.

I don't post anything on Facebook that could compromise me for work in any way.

Lastly, respondents were asked about the use of guidelines relating to the use of social networking software in health professions education. Many were unfamiliar with existing guidelines (43%); only 15% agreed that existing guidelines were adequate. A majority agreed that guidelines would be beneficial: 79% agreed that others would benefit, and 62% stated they would benefit personally.

There are certain guidelines that I think any professional or role model should follow: no photos of inappropriate conduct (nudity, heavy drinking, sexual content, etc), patients/clients should not be added as friends or be able to view photos, confidential information remains confidential. otherwise, if people are stupid enough to jeopardize their profession by posting something on Facebook, they should deal with the consequences (losing a current or potential job, etc).

DISCUSSION

This study showed that social networking software use, specifically Facebook use, was widespread among the healthcare students at our school who responded to our

survey. Our results highlight some of the challenges which can accompany the use of this new technology and offer potential insights to help understand the pedagogy and practices of Facebook use in this population, and to help students navigate the dilemmas associated with becoming 21st century healthcare professionals.

There was widespread agreement that posting material that can identify a patient/client should be considered unprofessional, as should material relating to drugs, sex, nudity, drunkenness, crime and obscenity. A majority also considered it unprofessional to post critical comments about teachers/programmes and posts which could be considered condescending. Despite these stated understandings, nearly half of the students we studied reporting seeing their colleagues posting unprofessional material on Facebook, and over a quarter reported posting such material themselves. There was a wide range of transgressions reported, including criticism of teachers/programmes, posting of inappropriate photographs, drunkenness, parties and swearing.

Our findings agree with other recent papers in the field. A study by Giordano and Giordano¹³ on healthcare students found that 77% of students used Facebook, and that use was inversely correlated with age. This paper also showed that the main reasons for use were to maintain personal and professional connections, and to obtain up-to-date information. Thompson *et al*³ examined Facebook use in US medical students and residents, and found that 47% had Facebook accounts, and that only one-third had privacy settings set sufficiently high to prevent public access. A number of accounts contained material relating to substance abuse, sexism, racism or lack of respect to patients. A similar study on New Zealand physicians found that 65% had Facebook accounts, many of which contained public information relating to alcohol consumption, sexual orientation and religion.¹⁵ Similar findings have also been observed in US otolaryngology residents and British medical students.¹⁶ In a recent study, 60% of US medical schools reported incidents relating to the use of social networking software, including breaches of patient confidentiality, profanity relating to the school, intoxication or substance abuse and nudity and sexual relationships. The majority of schools had issued a warning to the students involved, and a small number had dismissed a student over the issue.¹⁷

Our findings on student attitudes about posting unprofessional material are also supported by a study which used focus groups to explore the issue among US medical students.¹⁸ As in our study, students generally agreed that it was unprofessional to breach patient confidentiality online, but there was less consensus about material relating to alcohol, drugs, sex and speaking poorly of others. This study also found that students expressed ambiguity about their use of Facebook, and 'viewed online activity through a lens of personal risk', considering how what they post could be used to harm them.

The types of material which our students considered problematic are congruent with other work outside healthcare describing the five main 'Facebook Follies' which employers consider relevant when hiring new employees: negative attitudes to work, profanity, alcohol, drugs and sexual activity.¹⁹ Students also appear to be aware of the impact of their online activities, and have identified similar areas that they do not wish employers to see including drinking and drugs, photographs from parties, comments from friends and comments about work.²⁰⁻²²

Christofides *et al*²³ have observed that social networking software encourages people to disclose more personal information that they would otherwise do in order to remain popular within a social network, but also generates concern about information control and privacy. Inappropriate pictures, especially of parties and drinking are a common cause of concern. As they write:

(Online) identity ... is a social product created not only by what you share, but also by what others share and say about you... the people who are most popular are those whose identity construction is most actively participated in by others... (by) limiting access to personal information... the individual also... potentially reduces his or her popularity.²³

We hypothesise that students are faced with a difficult dilemma: wanting to share information in a mixed personal/professional social network in order to remain popular, while also being wary about how the material they share will make them appear and who will see it. Others have also described this 'balancing act' between the need to share information and the desire to manage how one's self is presented.²⁴ This is a process of trial and error, and students express regret for the negative consequences of material posted previously.²⁵ We believe that this process is similar to other processes of conforming in healthcare education which have been described elsewhere.²⁶

Given the concerns over the use of Facebook by healthcare professions students, it is surprising to find that in a recent study, only 10% of US medical schools had a policy of any kind relating to social networking, and only 5 of the 132 schools studied provided advice on how students could avoid posting inappropriate content.²⁷ The American Medical Association has recently issued a report on professionalism in the use of social media,²⁸ and a number of other organisations have suggested guidelines for physicians using social networking sites,²⁹⁻³³ but so far there is no generally accepted policy for students of the health professions.

Some have gone so far as to suggest that we need to 'divorce' the personal from the professional online, creating separate Facebook identities with 'dual-citizenship'.³⁴ We believe that such concerns about Facebook use by healthcare professionals may be excessive and that social networking software is not dangerous

or something to be feared, policed or banned.³⁵ Others have shown that both students and educators are struggling to integrate this new technology into our existing practices of teaching and learning.³⁶ Online technologies are simply tools which are neither inherently good nor bad³⁷; in some ways, social networking technologies act as a 'mirror' which reflects all of our activities, including some activities we would rather not show to the world.³⁸

In response to this study, our medical school has developed a short course in which students discuss their use of social media such as Facebook. This course includes a review of the public appearance of the medical school class on Facebook, and also provides opportunities to discuss examples of appropriate and inappropriate use of social networking software among students. There is now an increased awareness of the use of social networking software among students and teachers at our school, and our medical students' association has also developed a set of social media guidelines for their members.

Our study was limited in several areas. Although the survey element of this study had a relatively low response rate, it did gather data from a large number of students training in several different health professions, and we believe it provides an interesting snapshot of attitudes to social networking software at our school across a number of different faculties. The low response rate to the survey means that we cannot exclude the possibility of response bias and that we cannot easily generalise our findings to the whole population. Given these limitations, we believe that we have shown that use of Facebook is widespread among the healthcare students we studied, and that we have identified areas for education policymakers to focus on.

We believe that studies such as this are important in exploring and understanding the pedagogy and practices of Facebook use and help students navigate the dilemmas associated with becoming 21st century healthcare professionals.

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