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Evaluating the appropriateness of Facebook posts – What do faculty and residents consider?

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Abstract

In order to understand what constitutes unprofessional online behaviour from the perspectives of stakeholders, there have been studies that examine the perceptions of doctors and the public on hypothetical online postings. However, the considerations and reasoning of the participants when they evaluate online posts have not been explored in-depth. This project aimed to examine the main considerations and possible conflicting considerations of faculty and residents when they evaluate the appropriateness of Facebook posts, and how they might negotiate any conflicts. Faculty and residents from the National Healthcare Group – Alexandra Health Pte Ltd Residency in Singapore were randomly presented Facebook posts as part of an online questionnaire, rated their appropriateness, and provided explanations for their ratings. Responses were coded for main considerations and responses with 2 or more conflicting considerations were further analysed to describe the conflict and the way they were negotiated. 182 faculty and residents rated the appropriateness of three out of six Facebook posts and explained their evaluation. Except for one post which was evaluated as ‘Neither appropriate nor inappropriate’ by the majority (37%) of the respondents, all other posts were rated as either ‘Very inappropriate’ or ‘Inappropriate’ by the majority of respondents (34%-69%). Despite similar evaluation of inappropriateness, faculty and residents take into account a wide range of considerations. These considerations tend to conflict with one another when the respondents considered freedom of expression of the poster and the educational purpose of a post. Understanding physicians’ negotiation of conflicting considerations provides insight into their outworking of professionalism in social media context.

Keywords: Professionalism, Social Media, Postgraduate Education

Practice Highlights

- Doctors within the same Residency do not necessarily have a uniform set of professional priorities regarding social media.
- They may also have to manage conflicting professional and personal values in different contexts.
- Educators of professional values could recognise the complexity of such conflicts and be sensitive to this in their teaching.
- We recommend creating platforms for doctors to have conversations on social media use.

I. INTRODUCTION

In June 2017, Mark Zuckerberg announced that the Facebook community was officially two billion people. While seeking to understand how social media can be maximised for good, Chief Product Officer Chris Cox was conscious of Facebook’s responsibility to ‘curtail any way that it can be misused or turned into something

sad’ (Constine, 2017). In healthcare education and practice, social media has both the potential to be maximised for good (e.g. facilitating communication and improving knowledge) as well as the potential to be misused, compromising patient confidentiality and eroding public confidence in the medical profession (Greysen, Kind, & Chretien, 2010; Hamm et al., 2013). In their commentary, Chretien and Kind (2014) propose

that in order to reap the benefits of social media use for healthcare, physicians need to be first aware of the risks of using social media and address concerns of unprofessional online behaviour.

In order to understand what constitutes unprofessional online behaviour from the perspectives of stakeholders, there have been studies that examine the perceptions of doctors and the public on hypothetical online postings (Chretien, Farnan, Greysen, & Kind, 2011; Dawkins, King, Boateng, Nichols, & Desselle, 2017; Greysen et al., 2013; Jain et al., 2014; Kesselheim, Batra, Belmonte, Boland, & McGregor, 2014; Kind, Greysen, & Chretien, 2012; Rocha & de Castro, 2014). These studies found that online behaviour that participants judged as unprofessional include patient privacy violations, patient content in general and negative comments about faculty and staff. However, the considerations and reasoning of the participants when they evaluate online posts have not been explored in-depth, and especially for posts that may be inappropriate but may not appear obviously unprofessional. Such ‘grey posts’ may include patient storytelling posts where, for example, a patient’s identity is not revealed but details are shared to encourage reflection or request support through social media (Wells, Lehavot, & Isaac, 2015). Professional or personal values may sometimes come into conflict when they seem equally important in such situations. However, not much is known about what these conflicting considerations are when doctors evaluate such online posts and how these conflicting considerations are resolved or negotiated.

In response to concerns about unprofessional behaviour on social media, guidelines have been published by medical associations in various countries like the USA, UK, Canada, Australia, New Zealand as well as Singapore (American College of Physicians Ethics, Professionalism, and Human Rights Committee, 2012; Australian Medical Association, 2010; Canadian Medical Association, 2011; General Medical Council, 2013; Singapore Medical Council, 2016). These existing guidelines are generally comprehensive, providing principles for social media use and examples of unprofessional behaviour to avoid. Regarding posting

online, concerns about patient confidentiality, professionalism, collegiality and preserving patients’ and the public trust in the medical profession are key issues raised by the guidelines. In particular, the Singapore Medical Council gives a list of inappropriate posts, examples include ‘speaking and writing in an indiscreet, bigoted, rude, and obscene or profane manner’ and ‘posting personal or derogatory comments about patients or colleagues’ (Singapore Medical Council, 2016).

Our study seeks to explore the considerations and possible competing or conflicting considerations of faculty and residents in the National Healthcare Group – Alexandra Health Pte Ltd (NHG-AHPL) Residency program when they evaluate online postings, especially grey posts. This study also aims to examine how the participants resolve or negotiate these conflicting considerations. Identifying the considerations of faculty and residents when they evaluate the posts sheds light on what constitutes unprofessional online posts and provides a platform for further discussion on existing social media use guidelines. Furthermore, understanding how doctors negotiate at times conflicting norms and obligations also provides insight into how they perceive the outworking of professionalism in the social media context.

II. METHODS

Six Facebook posts deemed inappropriate were identified from an online search. One author (L.M.E.) searched Google News on 30th June 2016 using a Boolean search: (social media OR Facebook OR twitter OR blog OR online OR internet OR web) AND (doctor OR physician OR medical student OR hospital OR clinic OR ward) AND (inappropriate OR unprofessional OR wrong OR unethical). The search was restricted to the first 20 pages of results (10 hits/page) and four posts (Posts 1, 2, 4 and 5) that appeared inappropriate but were not clearly unprofessional were selected. The remaining two posts (Post 3 and 6) were re-used from a pilot phase of the study. The characteristics of the posts are described in Table 1 and the screenshots of the six posts can be found in Appendix A.

	Content domain	Poster’s seniority	Possible issues
Post 1	Work: patient-related	Not stated	Breach of confidentiality, privacy
Post 2	Personal: interpersonal conflict	Medical student	Harsh language bordering on criminal threat
Post 3	Work: patient-related	Doctor	Negativity towards patient, breach of confidentiality
Post 4	Personal: opinion	Medical student	Harsh language on a controversial topic
Post 5	Work: patient-related	Junior doctor	Breach of confidentiality, insensitive language
Post 6	Work: colleague-related	Intern	Negativity towards colleague

Table 1. Characteristics of posts

As part of an online questionnaire administered between 8th September and 30th October 2016 on social media use, faculty and residents from the NHG-AHPL Residency program in Singapore were asked to rate the appropriateness of three of these posts and to explain their evaluation. All respondents provided informed consent at the start of the questionnaire. Considerations were identified using structural coding which is a question-based code that acts as a labelling and indexing device (Saldana, 2012). For example, the following response was coded ‘Purpose’, ‘Language’ and ‘Respect’ based on the question “What do respondents consider when they evaluate posts?”

Someone has just died. Instead of showing empathy to the family of the deceased who had just lost a loved one, she uses swear words in a callous, insensitive way. Even though her intentions might have been good to ask people to wear a crash helmet, the way she said it was offensive and highly inappropriate given the circumstances. (F5.3)

In the first round of coding, two authors (L.M.E, B.W.) coded each response independently and resolved coding

discrepancies through discussions. Using a codebook developed from the first round of coding as a guide, each response was revisited and coded. Coding discrepancies were resolved through more extensive discussions. The second round of coding added new codes to the codebook. Responses with two or more conflicting considerations were further analysed to describe the conflict and the way they were negotiated. Conflicting considerations were identified based on the plain reading of the response, prompted by the use of conjunctions such as ‘but’, ‘even though’ and ‘while’. Appendix B gives a full description of the codes used. Ethics approval was obtained from the institution’s Domain Specific Review Board.

III. RESULTS

A total of 182 respondents (36.8%)—64 faculty and 118 residents—rated the appropriateness of three out of six Facebook posts. 463 responses—169 responses from faculty and 294 responses from residents—were analysed. Table 2 provides a summary of the results for each post.

	Evaluation of appropriateness	Considerations	Conflicting considerations
Post 1	<p><u>n=86</u></p> <p>‘Very inappropriate’ (34%)</p> <p>‘Inappropriate’ (34%)</p> <p>‘Neither appropriate nor inappropriate’ (30%).</p> <p>‘Appropriate’ (1%)</p> <p>‘Very appropriate’ (1%)</p>	<p><u>n=74</u></p> <ol style="list-style-type: none"> 1. ‘Consent’ (n=41) 2. ‘Confidentiality’ (n=20) 3. ‘Context’ (n=11) 4. ‘Respect’ (n=10) 5. ‘Professionalism’ (n=6) 6. ‘Purpose’ (n=6) 7. ‘Consequences’ (n=3) 8. ‘Language’ (n=3) 9. ‘Safety’ (n=3) 10. ‘Audience’ (n=1) 11. ‘Behaviour’ (n=1) 12. ‘Platform’ (n=1) 	<p><u>n=3</u></p> <p>Positive tone of the post versus patient confidentiality, whether consent was taken, consequences and sensitivity towards the baby’s parents</p>
Post 2	<p><u>n=93</u></p> <p>‘Very inappropriate’ (39%)</p> <p>‘Inappropriate’ (39%)</p> <p>‘Neither appropriate nor inappropriate’ (18%)</p> <p>‘Appropriate’ (3%)</p>	<p><u>n=77</u></p> <ol style="list-style-type: none"> 1. ‘Platform’ (n=24) 2. ‘Behaviour’ (n=16) 3. ‘Freedom’ (n=16) 4. ‘Professionalism’ (n=16) 5. ‘Lawfulness’ (n=13) 6. ‘Method of resolution’ (n=13). 7. ‘Language’ (n=8) 8. ‘Reflection’ (n=8) 9. ‘Audience’ (n=3) 10. ‘Consequences’ (n=2) 11. ‘Trends and norms’ (n=2) 12. ‘Context’ (n=1) 13. ‘Purpose’ (n=1) 14. ‘Seniority’ (n=1). 	<p><u>n=6</u></p> <p>Personal nature of the post and the poster’s freedom to express his anger and how his anger is justifiable versus considerations of professionalism, the method used for resolution, consequences and lawfulness</p> <p>Norms on the internet versus how the post reflects negatively upon the poster’s personality</p>
Post 3	<p><u>n=95</u></p> <p>‘Very inappropriate’ (36%)</p> <p>‘Inappropriate’ (44%)</p> <p>‘Neither appropriate nor inappropriate’ (20%)</p> <p>‘Appropriate’ (0%)</p> <p>‘Very appropriate’ (1%)*</p>	<p><u>n=81</u></p> <ol style="list-style-type: none"> 1. ‘Professionalism’ (n=48) 2. ‘Confidentiality’ (n=24) 3. ‘Platform’ (n=14) 4. ‘Consequences’ (n=5) 5. ‘Language’ (n=5) 6. ‘Reflection’ (n=5) 7. ‘Boundary’ (n=4) 8. ‘Freedom’ (n=4) 9. ‘Purpose’ (n=4) 10. ‘Behaviour’ (n=2) 	<p><u>n=4</u></p> <p>Poster’s right to state a fact or express his feelings and poster posting in just versus considerations of professionalism</p>

		11. 'Method of resolution'(n=2) 12. 'Audience'(n=1)	
Post 4	n=96 ‘Very inappropriate’ (27%) ‘Inappropriate’ (28%) ‘Neither appropriate nor inappropriate’ (37%) ‘Appropriate’ (4%) ‘Very appropriate’ (1%)* No response (1%)	n=79 1. ‘Freedom’ (n=33) 2. ‘Behaviour’ (n=14) 3. ‘Context’ (n=13) 4. ‘Platform’ (n=11) 5. ‘Language’ (n=8) 6. ‘Professionalism’ (n=7) 7. ‘Boundary’ (n=6) 8. ‘Trends and norms’ (n=5) 9. ‘Consequences’ (n=3) 10. ‘Method of resolution’ (n=3) 11. ‘Anonymity’ (n=2) 12. ‘Respect’ (n=2) 13. ‘Audience’ (n=1) 14. ‘Confidentiality’ (n=1).	n=13 Poster’s freedom to express his personal opinion versus considerations, of professionalism, language, audience, behaviour, context, platform and consequences. Norms on social media versus harsh language
Post 5	n=91 ‘Very inappropriate’ (24%) ‘Inappropriate’(42%) ‘Neither appropriate nor inappropriate’ (24%) ‘Appropriate’(1%) ‘Very appropriate’ (9%)	n=79 1. ‘Confidentiality’ (n=38) 2. ‘Language’ (n=24) 3. ‘Purpose’ (n=23) 4. ‘Respect’ (n=17) 5. ‘Professionalism’ (n=10) 6. ‘Behaviour’(n=8) 7. ‘Platform’(n=7) 8. ‘Audience’(n=6) 9. ‘Consequences’(n=4) 10. ‘Freedom’(n=4) 11. ‘Boundary’(n=1) 12. ‘Context’(n=1) 13. ‘Reflection’(n=1) 14. ‘Trends and norms’(n=1)	n=15 Educational message versus considerations of language and tone, respect, platform, audience and consequences Freedom of the poster to post what she wants without patient identifiers versus consideration of the language used
Post 6	n=89 ‘Very inappropriate’(69%) ‘Inappropriate’ (20%) ‘Neither appropriate nor inappropriate’ (4%) ‘Appropriate’ (0%) ‘Very appropriate’ (2%) No response (2%)	n=91 1. ‘Platform’ (n=22) 2. ‘Collegiality’ (n=21) 3. ‘Method of resolution’ (n=20) 4. ‘Professionalism’ (n=18) 5. ‘Consequences’ (n=13) 6. ‘Language’(n=11) 7. ‘Lawfulness’(n=6) 8. ‘Confidentiality’(n=4) 9. ‘Behaviour’(n=3) 10. ‘Context’(n=3) 11. ‘Anonymity’(n=2) 12. ‘Freedom’ (n=1) 13. ‘Purpose’ (n=1) 14. ‘Respect’(n=1)	n=1 Consideration that the poster might be trying to resolve an issue versus considerations of the inappropriateness of the post in terms of collegiality

Table 2. Summary of results for Posts 1-6

A. Evaluation and Considerations

Except for Post 4 which was evaluated as ‘Neither appropriate nor inappropriate’ by the majority (37%) of the respondents, all other posts were rated as either ‘Very inappropriate’ or ‘Inappropriate’ by the majority of respondents (34%-69%). In particular, Post 5 has a relatively high proportion of respondents (10%) rating it as either ‘Appropriate’ or ‘Very appropriate’. Respondents have a broad range of considerations with ‘Professionalism’, ‘Language’, ‘Behaviour’ and ‘Platform’ repeated across all six posts.

‘Platform’ was the main consideration for Post 2 and Post 6. Respondents considered the inappropriateness of

posting on a public platform what should only be said or done in private, “*FB is a public forum. People should settle personal grievances NOT online but privately*” (R2.57; Post 2); “*Publicly criticizing a colleague is inappropriate. Feedback should always be given in a private setting*” (R6.33; Post 6).

For the other posts, the main considerations were ‘Consent’ (Post 1), ‘Professionalism’ (Post 3), ‘Freedom’ (Post 4) and ‘Confidentiality’ (Post 5). More than half of the respondents (55%) for Post 1 considered whether consent or permission was obtained before posting. For Post 3, more than half of the respondents (59%) considered professionalism generally or more specifically in terms of attitude. For Post 4, 42% of the

respondents considered the freedom of speech of the poster including the freedom of the poster to post personal matters in a personal capacity, with personal accountability. Confidentiality and privacy of patients was considered by 24% of respondents on Post 5.

B. Negotiation of Conflicting Considerations

Among the six posts, Post 5 had the most number of respondents with conflicting considerations (n=15), followed by Post 4 (n=13).

For Post 5, fourteen respondents considered that the poster has an educational purpose versus other considerations and one respondent considered freedom of expression versus language. To negotiate the conflicting considerations for Post 5, six respondents reasoned that the educational message of the post and the poster's good intentions need to be subjected to (or at least seen in the light of) considerations of confidentiality, language, professionalism and respect. For example, two faculty members, F5.3 and F5.5, thought that although the poster had good intentions and the message was educational, her language and tone were inappropriate.

Someone has just died. Instead of showing empathy to the family of the deceased who had just lost a loved one, she uses swear words in a callous, insensitive way. Even though her intentions might have been good to ask people to wear a crash helmet, the way she said it was offensive and highly inappropriate given the circumstances (F5.3).

F5.5 also considered the possible identification of the victim, *"although message was 'correct' strong language including expletives used which is inappropriate timing and location of post may allow identification of victim" (F5.5).*

However, there were nine respondents for Post 5 who considered educational purpose and freedom of expression at the same level of importance as other considerations. Rating Post 5 as 'Neither inappropriate nor appropriate', F5.6 reasoned that the possible breach in Professionalism/Confidentiality may be justified by educational purpose, *"I don't think it's appropriate to talk about patient experiences on Facebook but I believe she has done so with the intention of encouraging others to wear helmets"* while R5.39 reasoned that the inappropriate language use may also be justified by the freedom of the poster to say what she wants as long as there were no patient identifiers, *"While her choice of words may not be the best, there were no patient identifiers. Again, she can say what she wants"*.

For Post 4 which had 13 respondents with conflicting considerations, 12 respondents considered that the poster should have the freedom to express his personal opinion versus a variety of other considerations, including that of 'Professionalism', 'Language', 'Audience', 'Behaviour', 'Context', 'Platform' and 'Consequences'. One respondent considered norms on social media versus the harsh language used.

To negotiate the conflicting considerations for Post 4, six respondents prioritised professionalism and other considerations like audience and consequences over freedom of expression. For example, a resident reasoned that while medical professionals can have their own political views, the poster should consider the possible consequences of such a post being seen by a wider audience and being used against him, *"Everyone is entitled to his own view, medical professionals can have their own political views, but caution needs to be exercised if this information is used against him. might need to restrict to close friends only"* (R4.43).

Seven respondents, however, considered freedom of expression and norms on social media at the same level of importance as other considerations. For example, respondents R4.51 and R4.60 rated Post 4 as 'Neither inappropriate nor appropriate'. They reasoned that the harsh language used or the negative consequences of the post may be justified by the poster's entitlement to freedom of expression, *"He is entitled to his beliefs and freedom of speech about political and religious issues. Even though these comments are harsh and mean, we can't possibly control how everyone speaks"* (R 4.51); *"Everyone is entitled to free speech and he has every right to say what he wants. But again this does not look good on his reputation"* (R 4.60).

The number of respondents with conflicting considerations for the other posts ranged from 1 to 6. In general, respondents negotiated the conflicting considerations mainly by prioritising professionalism over and above the other considerations.

IV. DISCUSSION

A total of 182 faculty and residents (36.8%) from the NHG-AHPL Residency program in Singapore rated the appropriateness of Facebook posts and 463 evaluation responses were analysed. One of three postgraduate medical education programs in Singapore, the NHG-AHPL Residency comprises 27 residency programs within a few institutions including hospitals and nine polyclinics. Faculty and residents who explained their evaluation took into account a wide range of considerations and these considerations tended to

conflict with one another when the respondents considered freedom of expression of the poster and the educational purpose of a post. These findings suggest that doctors within the same Residency do not necessarily have a uniform set of professional priorities and may have to manage conflicting professional and personal values in different contexts. The teaching and evaluation of professionalism should thus increasingly take conflict and context into consideration (Ginsburg et al., 2000). Educators of professional values could recognise the complexity of such conflicts and be sensitive to this in their teaching, whether formally or informally.

Freedom of speech or expression appears to be a recurrent consideration for posts not just in the personal domain (Posts 2 and 4) but also those in the work-related domain as well (Posts 3 and 5). Given that freedom of expression is not commonly encouraged or emphasised in Asian cultures (Kim & Sherman, 2007), it may be somewhat surprising that this was a recurrent consideration for doctors in Singapore. This consideration thus deserves more attention from developers of social media use guidelines and online professionalism course facilitators who can seek to start addressing these considerations by first recognising and acknowledging them. While existing social media guidelines could and should be tempered by recognising doctors' right to free speech, doctors and medical students would also need to exercise critical judgment to consider whether their freedom of expression is appropriate in view of the guidelines (Farnan et al., 2009).

This study found that the post that elicited the most number of conflicting considerations was Post 5. This post by a junior doctor contained insensitive language and patient-related content but had an educational purpose. It is unclear whether if the post had been written more sensitively, it would elicit even more conflicting considerations. This may be a valid cause for concern given the potential negative consequences of such posts (Wells et al., 2015). Although the victim was not named, it is still possible that enough details are given for him to be identified. Such a post may also violate family members' expectations of privacy. Public trust could also possibly be undermined because of the insensitivity and lack of empathy displayed by a doctor. It may be helpful for faculty to engage residents or students with such issues informally or formally during relevant courses and to explore alternative avenues for patient storytelling.

Based on the findings of our study, we recommend creating platforms for conversations on social media use to take place among faculty and residents. Using existing

social media use guidelines and relevant findings from studies as material for discussion, faculty and residents could consider various perspectives, discuss how guidelines may moderate some considerations and explore further considerations arising from the conversation. Discussions like these require doctors to exercise critical judgments on ethical dilemmas and arrive at possible ways to negotiate conflicting considerations in various circumstances within the social media context. In her commentary on social media and medical professionalism, Fenwick (2014) discusses how doctors in contemporary practice must deal with conflicting priorities and urges a more pluralistic approach to understanding the notion of professionalism while thinking critically about social media's current and future implications for practice. Such conversations can provide opportunities for the doctors to do so and perhaps more crucially, to consider how social media can be used creatively for better patient and health outcomes.

In a recent systematic review on the use of social media in graduate medical education, the authors found ten studies pertaining to resident professionalism (Sterling, Leung, Wright, & Bishop, 2017). However, most were exploratory, surveying residents about their social network behaviour and exploring how program directors use social media to monitor unprofessional behaviour of residents. Although our study was limited to the faculty and residents in one Residency in Singapore, to our knowledge, this is the first study to shed light on how residents as well as faculty negotiate conflicting considerations when evaluating online posts. Instead of hypothetical Facebook posts (whereby it would be possible to address potential biases by varying factors like the age or gender of the poster), we used authentic posts (except Post 6) which respondents might find more relevant and might be more motivated to evaluate and discuss them. Another limitation of the study was that we did not consider how factors like the respondents' age, type of residency program or their actual usage of social media may influence their evaluation of the posts. However, we followed a systematic, transparent process for coding the written responses and we achieved a high interrater reliability through extensive discussions.

Future work should focus on understanding the complexities of how doctors negotiate conflicting professional values. In this study, respondents were asked to explain their evaluation after rating the appropriateness of the posts and the length of responses varied from one word to several sentences. Due to the limitation of such a study design, the reasoning process of some respondents could not be examined. Conducting interviews or focus groups could enable more in-depth analysis of how participants negotiate conflicting values.

Research in moral psychology has shed light on how a person makes moral judgments. According to cognitive developmentalists a person may spontaneously have a new intuition that contradicts the initial intuitive judgment during the course of thinking about a situation (Kohlberg, 1969; Piaget, 1965). He/she comes to see a dilemma from more than one perspective and experiences competing intuitions. In particular, focus-group discussions could shed light on how the moral judgments of participants in the group might influence one another (Haidt, 2001). Studies designed to focus on examining how doctors resolve conflicting professional values can deepen our understanding of medical professionalism and what it constitutes, within the social media context and beyond.

V. CONCLUSION

This study aimed to explore the considerations and possible competing or conflicting considerations of faculty and residents in the NHG-AHPL Residency program when they evaluate online postings, especially grey posts. Faculty and residents who explained their evaluation took into account a wide range of considerations and these considerations tended to conflict with one another when the respondents considered freedom of expression of the poster and the educational purpose of a post. These findings suggest that doctors within the same Residency do not necessarily have a uniform set of professional priorities and may have to manage conflicting professional and personal values in different contexts. Educators of professional values could recognise the complexity of such conflicts and be sensitive to this in their teaching, whether formally or informally. We recommend creating platforms for conversations on social media use to take place among faculty and residents.

Notes on Contributors

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Ethical Approval

Ethics approval was obtained from the institution's Domain Specific Review Board (NHG DSRB Ref: 2015/00584).

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Declaration of Interest

There is no conflict of interest to declare.

References

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- American College of Physicians Ethics, Professionalism, and Human Rights Committee. (2012). American College of Physicians Ethics Manual: Sixth edition. *Annals of Internal Medicine*, 156(1 Pt 2), 73–104. <https://doi.org/10.7326/0003-4819-156-1-201201031-00001>
- Australian Medical Association. (2010). *Social media and the medical profession*. Retrieved from <https://ama.com.au/article/social-media-and-medical-profession>
- Canadian Medical Association. (2011). *Social media and Canadian physicians: Issues and rules of engagement*. Retrieved from <https://www.cma.ca/En/Pages/social-media-use.aspx>
- Chretien, K. C., Farnan, J. M., Greysen, S. R., & Kind, T. (2011). To friend or not to friend? Social networking and faculty perceptions of online professionalism. *Academic Medicine*, 86(12), 1545-1550. <https://doi.org/10.1097/ACM.0b013e3182356128>
- Chretien, K. C., & Kind, T. (2014). Climbing social media in medicine's hierarchy of needs. *Academic Medicine*, 89(10), 1318–1320. <https://doi.org/10.1097/ACM.0000000000000430>
- Constine, J. (2017, June 27). *Facebook now has 2 billion monthly users... and responsibility*. Retrieved October 20, 2017, from TechCrunch website <http://social.techcrunch.com/2017/06/27/facebook-2-billion-users/>
- Dawkins, R., King, W. D., Boateng, B., Nichols, M., & Desselle, B. C. (2017). Pediatric residents' perceptions of potential professionalism violations on social media: A US national survey. *JMIR Medical Education*, 3(1). <https://doi.org/10.2196/mededu.5993>
- Farnan, J. M., Paro, J. A. M., Higa, J. T., Reddy, S. T., Humphrey, H. J., & Arora, V. M. (2009). Commentary: The relationship status of digital media and professionalism: it's complicated. *Academic Medicine*, 84(11), 1479–1481. <https://doi.org/10.1097/ACM.0b013e3181bb17af>
- Fenwick, T. (2014). Social media and medical professionalism: Rethinking the debate and the way forward. *Academic Medicine*, 89 (10), 1331–1334. <https://doi.org/10.1097/ACM.0000000000000436>
- General Medical Council. (2013). *Doctors' use of social media*. Retrieved from http://www.gmc-uk.org/guidance/ethical_guidance/21186.asp

- Ginsburg, S., Regehr, G., Hatala, R., McNaughton, N., Frohna, A., Hodges, B., ... Stern, D. (2000). Context, conflict, and resolution: A new conceptual framework for evaluating professionalism. *Academic Medicine*, 75(Supplement), S6–S11.
- Greysen, S. R., Johnson, D., Kind, T., Chretien, K. C., Gross, C. P., Young, A., & Chaudhry, H. J. (2013). Online professionalism investigations by state medical boards: First, do no harm. *Annals of Internal Medicine*, 158(2), 124–130. <https://doi.org/10.7326/0003-4819-158-2-201301150-00008>
- Greysen, S. R., Kind, T., & Chretien, K. C. (2010). Online Professionalism and the Mirror of Social Media. *Journal of General Internal Medicine*, 25(11), 1227–1229. <https://doi.org/10.1007/s11606-010-1447-1>
- Haidt, J. (2001). The emotional dog and its rational tail: A social intuitionist approach to moral judgment. *Psychological Review*, 108(4), 814–834.
- Hamm, M. P., Chisholm, A., Shulhan, J., Milne, A., Scott, S. D., Klassen, T. P., & Hartling, L. (2013). Social media use by health care professionals and trainees: A scoping review. *Academic Medicine*, 88(9), 1376–1383. <https://doi.org/10.1097/ACM.0b013e31829eb91c>
- Jain, A., Petty, E. M., Jaber, R. M., Tackett, S., Purkiss, J., Fitzgerald, J., & White, C. (2014). What is appropriate to post on social media? Ratings from students, faculty members and the public. *Medical Education*, 48(2), 157–169. <https://doi.org/10.1111/medu.12282>
- Kesselheim, J. C., Batra, M., Belmonte, F., Boland, K. A., & McGregor, R. S. (2014). New professionalism challenges in medical training: An exploration of social networking. *Journal of Graduate Medical Education*, 6(1), 100–105. <https://doi.org/10.4300/JGME-D-13-00132.1>
- Kim, H. S., & Sherman, D. K. (2007). “Express yourself”: Culture and the effect of self-expression on choice. *Journal of Personality and Social Psychology*, 92(1), 1–11. <https://doi.org/10.1037/0022-3514.92.1.1>
- Kind, T., Greysen, S. R., & Chretien, K. C. (2012). Pediatric clerkship directors’ social networking use and perceptions of online professionalism. *Academic Pediatrics*, 12(2), 142–148. <https://doi.org/10.1016/j.acap.2011.12.003>
- Kohlberg, L. (1969). Stage and sequence: The cognitive development approach to socialization. In D. Goslin (Ed.), *Handbook of socialization theory* (pp. 347–480). Chicago: Rand McNally.
- Piaget, J. (1965). The moral judgment of the child. Retrieved from <http://archive.org/details/moraljudgmentoft005613mbp>
- Rocha, P. N., & de Castro, N. A. A. (2014). Opinions of students from a Brazilian medical school regarding online professionalism. *Journal of General Internal Medicine*, 29(5), 758–764. <https://doi.org/10.1007/s11606-013-2748-y>
- Saldana, J. (2012). *The Coding Manual for Qualitative Researchers*. London: SAGE.
- Singapore Medical Council. (2016). *smc handbook on medical ethics*. Retrieved from http://www.healthprofessionals.gov.sg/content/hprof/smc/en/topnav/guidelines/ethical_code_and_ethical_guidelines.html
- Sterling, M., Leung, P., Wright, D., & Bishop, T. F. (2017). The Use of Social Media in Graduate Medical Education: A Systematic Review. *Academic Medicine*, 92(7), 1043–1056. <https://doi.org/10.1097/ACM.0000000000001617>
- Wells, D. M., Lehavot, K., & Isaac, M. L. (2015). Sounding Off on Social Media: The Ethics of Patient Storytelling in the Modern Era. *Academic Medicine*, 90(8), 1015–1019. <https://doi.org/10.1097/ACM.0000000000000668>

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Post 1 (n=86)

This photo was shared with the caption: **"Greetings to everyone who is doing night shifts! A small baby with big hopes just came into this world!"** (Source: Stuff, 9 April 2016)



(Source: Stuff, 9 April 2016)

Post 2 (n=93)

Medical student Ravindu Thilakawardhana reacted angrily when another student put some explicit photos of a friend of his online.

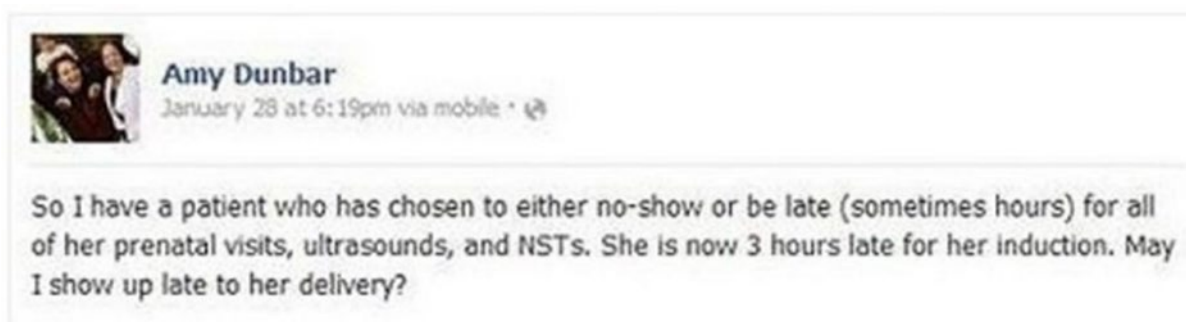
He posted Liam Neeson's image and the actor's famous quote, **"I will look for you, I will find you, and I will kill you"**, from the film Taken, on his Facebook page. He followed that with a private, foul-mouthed message to the student, in which he told him:

"I don't want to see you on a night out in Leicester, or in the UK."

(Source: Leicester Mercury, 6 Dec 2015)

Post 3 (n=95)

According to TheBump.com, a popular website for moms-to-be, Dr. Amy Dunbar of Mercy Medical Center posted the following on Facebook:



(Source: Fox News, 6 February 2013)

Post 4 (n=97)

University of New Mexico medical student Paul Hunt wrote an anti-Obama, anti-abortion post on his Facebook page in 2012,

"Shame on you for supporting the genocide against the unborn. You're WORSE than the Germans during WW2."

(Source: The Daily Beast, 12 April 2016)

Post 5 (n=91)

Darren Neate died on June 8 after his green Kawasaki off-road motorcycle was involved in a one-vehicle collision. Junior doctor Ellie Pierce, who treated Darren for his fatal injuries, describes the injuries as 'gory' on Facebook. In her post, Miss Pierce asks why Mr Neate was not wearing a crash helmet.



She finishes the post by urging people to wear a crash helmet.
(Source: Doncaster Free Press, 10 June 2016)

Post 6 (n=91)

The following post was amended from a real posting on a social media site:

Dear Emergency Registrar,

Thanks a million for misdiagnosing my patient's perforated bowel as constipation and treating aggressively with laxatives. I'm sure she appreciated the subsequent cardiac arrest and multiorgan failure. Don't worry, she just needs a new set of kidneys and a liver and she'll be right. And with that kind of performance, I'm sure you can help her acquire them.

**Kind regards,
Lowly intern**

(Source: news.com.au, 30 November 2010)

Appendix B: Description of the Codes Used

Structural Codes: What do doctors consider when evaluating posts?	Definition	Examples
Anonymity	Considerations that the poster makes comments under anonymity	People have always had thoughts like this. Social Media merely allows for the thoughts to be broadcast behind a wall of anonymity. (R4.38)
Audience	Considerations of who the intended audience or readers of the post are	Depends on context and intended audience (F1.21)
Behaviour in general	Considerations that behaviour is inappropriate regardless of online platform	doubly bad for comparing abortion to genocide and comparing it to germans (F4.29)
Boundary	Considerations of the need to have a boundary between work and social/personal lives	Keep work out from social activities (F3.6)
Collegiality	Considerations of collegiality between colleagues.	should not be criticising seniors on public forum (R6.52)
Confidentiality	Considerations of patient confidentiality and privacy	Reveals information that can be traced to patient (F3.28)
Consent	Considerations of consent or permission obtained from patient/patients' NOK before posting	posting without a consent of a minor and baby looks distressed. might be acceptable if taken in a more respective manner and consent taken from mother (F1.1)
Consequences	Considerations of the consequences/repercussions/effects of the post	Potential creating public fear and causing medicolegal consequences (R6.32)
Context	Considerations of the context surrounding the post. Includes capacity in which the poster posts – personal or professional representation	Need to see more details to evaluate, context. (F1.6)
Freedom of speech	Considerations of the poster's freedom of speech or freedom to express an opinion/emotions Includes the idea of freedom to post personal matters in a personal capacity, with personal accountability	She is just expressing her opinion and frustration. No patient identifiers were given. (R3.59) He is just expressing an opinion as a private citizen (F4.21) The post could have been said in person if not for the availability of social media. He is acting on his own personal capacity and is only accountable to himself. Although it can be construed as a threat. I am not sure if that is legally allowed. If it is against the law, then it is inappropriate, whether it is said in person or on social media. Of course, the difference is that more people can access social media and the content is etched forever in the net (F2.17)
Language and tone	Considerations of the poster's language and tone	Words are harsh (F4.20) sounds like said in jest (F3.13)

Lawfulness	Considerations of the lawfulness of the post	a criminal threat (F2.22)
Method of resolution	Considerations of the appropriateness of the method of resolution of a problem	His anger is understandable, but the right way to deal with the culprit should have been to make a police report instead of trying vigilante justice. (R2.43)
Professionalism	Considerations of professionalism as a general concept or in terms of behaviour, image, decorum, attitude, manner and fitness to practice	image of our professions as healer not congruent with finding someone and killing someone (R2.42) This exhibits a vengeance attitude which is inappropriate especially in professionals (R3.38) these serious concerns should be channeled via proper body/committee and should be addressed as always in a professional manner (R6.50)
Public platform	Considerations of the appropriateness of a platform like social media which is public.	should not be posted on social media (R1.35) People should settle personal grievances NOT online but privately (R2.57) Social media should not be used to convey words that you would not say in front of a person (R4.45)
Purpose of post	Considerations of the purpose and intention of the post and if the post has an educational message.	No teaching value (F1.20)
Reflection	Considerations of how the post reflects on the poster – personality, profession	The Liam Neeson's image is a meme that's quite popular in the internet. However, this reflects poor judgment and personality/bad temper. (F2.6)
Respect	Considerations of respect and sensitivity towards patient	Utter disrespect for the vulnerable patient, as if the baby was a prize that the doctors won. (F1.8)
Safety	Considerations of patient's physical safety	inappropriate as baby doesn't seem to be carried in a safe way (R1.39)
Seniority of poster	Considerations of the seniority of the poster	he is not a professional doctor yet, his comment is his freedom, not bound by professionalism (R2.54)
Trends and norms	Considerations of the appropriateness of post in view of current trends and norms	The Liam Neeson's image is a meme that's quite popular in the internet. However, this reflects poor judgment and personality/bad temper(post 2)
nil	No considerations were expressed	