

PEER REVIEW HISTORY

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ARTICLE DETAILS

TITLE (PROVISIONAL)	"Doctors can't be doctors all of the time": a qualitative study of how general practitioners and medical students negotiate public-professional and private-personal realms using social media
AUTHORS	Marshal, Megan; Niranjan, Vikram; Spain, Eimear; MacDonagh, Joe; O'Doherty, Jane; O'Connor, Raymond; O'Regan, Andrew

VERSION 1 – REVIEW

REVIEWER	Moorley, Calvin London South Bank University School of Health and Social Care
REVIEW RETURNED	08-Apr-2021

GENERAL COMMENTS	<p>Dear Authors, Thank you for an interesting papers. I have made a few annotated comments in the file attached. You may want to make clearer your ethical approach as students and GP tutors were known to you please ensure you make a statement on no coercion</p> <ol style="list-style-type: none">2. There is no clear theoretical or conceptual framework (drawn from the literature) statement3. You may want o consider making a statement on the generational age difference of both group of participants.4. I am not sure of your rationale of having physio and nursing students vignettes when this was aimed at GPs and medical students.5. You may want to add male or female after the student or GP at end of quotes6. Consider some wider limitations to your study
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REVIEWER	Manca, Stefania National Research Council of Italy, Institute of Educational Technology
REVIEW RETURNED	26-May-2021

GENERAL COMMENTS	<p>The manuscript presents a qualitative study about how general practitioners and medical students perceive health professionals' behaviours on social media. The study is based on a number of interviews and participants were also asked to respond to vignettes that presented diverse degrees of unprofessional behaviour. The research is timely and presents a very significant topic for the developments of the medical profession. I have, however, a number of concerns and some recommendations to the authors which I hope they will take into account when revising the manuscript.</p>
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	<p>First of all, I recommend extending the literature review. The subject of online professionalism has been surveyed in the medical literature for at least ten years. I invite the authors to provide a more articulate overview of this literature and to describe the most relevant problems and research gaps that their study intends to cover. Just as an example, I recommend looking at these recent studies:</p> <p>Enid Geyer, Elizabeth Irish, Amanda Hagzan & Alicia Wiczulis (2020) Social Media and Online Professionalism Integrated into Year 3 OB/GYN Clerkship#, Medical Reference Services Quarterly, 39:4, 359-369, DOI: 10.1080/02763869.2020.1826226 Pronk, S.A., Gorter, S.L., van Luijk, S.J. et al. Perception of social media behaviour among medical students, residents and medical specialists. Perspect Med Educ (2021). https://doi.org/10.1007/s40037-021-00660-1</p> <p>Javad J. Fatollahi, James A. Colbert, Priyanka Agarwal, Joy L. Lee, Eliyahu Y. Lehmann, Neal Yuan, Lisa Soleymani Lehmann & Katherine C. Chretien (2020) The Impact of Physician Social Media Behavior on Patient Trust, AJOB Empirical Bioethics, 11:2, 77-82, DOI: 10.1080/23294515.2019.1678533</p> <p>Wang et al. (2019). Social media usage and online professionalism among registered nurses: A cross-sectional survey. International Journal of Nursing Studies, Volume 98, October 2019, Pages 19-26</p> <p>Christina L. Wissinger & Zack Stiegler (2019) Using the Extended Parallel Process Model to Frame E-Professionalism Instruction in Healthcare Education, Teaching and Learning in Medicine, 31:3, 335-341, DOI: 10.1080/10401334.2018.1528155</p> <p>I also suggest using this reference for a commonly accepted definition of social media: A.M. Kaplan and M. Haenlein (2010). Users of the world, unite! The challenges and opportunities of Social Media. Bus. Horiz., 53 (1) (2010), pp. 59-68</p> <p>Secondly, I advise adding a theoretical perspective to the study. The topic of personal and professional identity has been addressed in a wide cohort of theoretical approaches, including in social media research. I suggest referring to these theoretical lines of research to make the study more robust. From this point of view, I also recommend adding one or more research questions that the study can answer and thus contribute to research in the field.</p> <p>Thirdly, I recommend much more elaboration effort from the authors so that the case study can be generalised beyond the specific experimental context in which it was developed. In this sense, much more efforts are required to conceptualise the tensions of identity that medical students have to deal with.</p> <p>Finally, once the authors have addressed the issues reported above, I also recommend reviewing the discussion and conclusions, and adding more operational guidance for professional practice and some perspectives for future research.</p>
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REVIEWER	Assing Hvidt, Elisabeth Syddansk Universitet Det Sundhedsvidenskabelige Fakultet, Department of Public Health
REVIEW RETURNED	15-Jun-2021

<p>GENERAL COMMENTS</p>	<p>Thank you for giving me the opportunity to review this article that treats an interesting and very timely subject matter about GPs' and medical students' use of and behaviour on social media.</p> <p>The qualitative methodology is well chosen and the two-stage data generation process holds an interesting potential that is however, not fully developed or presented in the paper. My remarks center on the empirical and analytical part of the paper that must be strengthened.</p> <p>The vignettes are at times used as a kind of triangulation - holding the accounts of the participants up against their reactions to the vignettes, but other than that the analysis appears superficial. Furthermore, I lack an introduction to the content of the vignettes. Also, the argument about data saturation lacks convincing power. How can one argue that data saturation has occurred in a small sample of five students and three GPs? And how come that you finished the data collection on a minimum number of participants? This is a very small sample, even for a qualitative study, and the analysis does not convey an understanding of "rich" data. The interviews were furthermore quite short 15-30 minutes as were the brief follow-up interviews - how long were they? Please provide more detail to that (length and context of the follow-up interviews) and please raise the small sample as a concern or a limitation in the manuscript. Please provide more depth to the analysis either by including more volume to the data extracts, providing more empirical examples or richer descriptions of the vignettes and analytical themes.</p> <p>What impact did it have that the interviewer knew some of the participants on beforehand?</p> <p>The data analysis section is very general - please provide more details about the proces from a priori themes to more final ones - what were the first, overall patterns in the data and how did it further develop?</p> <p>Findings: The findings section lacks some clarity as to the meaning of the themes, e.g., what is the meaning to the theme: "The world has got smaller"? And how does this meaning relate to the two sub themes?</p> <p>The second and third main themes are much clearer though.</p> <p>The discussion section is interesting to read. The practice implication point that formal education in digital presence and identity building is needed is well argued for and appears convincing.</p> <p>Please check the manuscript for typing errors - I have come across a few.</p> <p>Good luck with the revision of the paper.</p>
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VERSION 1 – AUTHOR RESPONSE

Reviewer: 1

Dr. Calvin Moorley, London South Bank University School of Health and Social Care

Comments to the Author:

Dear Authors,

Thank you for an interesting papers. I have made a few annotated comments in the file attached.

You may want to make clearer your ethical approach as students and GP tutors were known to you please ensure you make a statement on no coercion

Response of the authors: We thank the reviewer for the feedback. Much of the paper has been re-written to address the reviewers' comments. The annotated comments in the attached file have been addressed within the re-writing. We have added a statement on coercion to the first paragraph of the Methodology:

"Would-be participants were contacted by email sent from a research administrator who was not involved in course teaching and assessment, thus ensuring no power dynamic or coercion."

2. There is no clear theoretical or conceptual framework (drawn from the literature) statement

Response of the authors: we have added a paragraph to the method section on conceptual framework.

"'Communities of practice' is a popular theory for conceptualising the development of medical professional identity [25], whereby the medical profession is understood both as a "collegial profession and community of practice". The theory states that successful identity formation depends on a dynamic interplay between members of the medical community at different stages of the medical continuum. To this end social media can supplement but not replace "meaningful contact with members of the community", which is considered in this framework to be the most important factor in professional identity formation [25]."

3. You may want to consider making a statement on the generational age difference of both group of participants.

Response of the authors: We have now addressed this in the Discussion:

"The generational difference between the two groups of participants - students and general practitioners, is another important consideration. The so-called 'generation Z' or millennials who have grown up with social media are thought to be more aware of its use for personal branding and career promotion [34]. This raises the matter of how these generations may have experienced social media differently and how it may be an important effect- the 'cohort effect' as it is known in research on depression, for example, where younger generations report greater incidence of depression [35]."

4. I am not sure of your rationale of having physio and nursing students vignettes when this was aimed at GPs and medical students.

Response of the authors: we have added the following to the data collection section of the Methods:

"These vignettes were designed so that doctors and medical students could give ethical and professional perspectives not simply on themselves but also on those with whom they work and will be working in their medical careers."

5. You may want to add male or female after the student or GP at end of quotes

Response of the authors: this has been completed at each quote.

6. Consider some wider limitations to your study

Response of the authors: we have added the following to the Discussion section:

“Limitations of the study were its location in a single medical school in Ireland and the small sample size. The results may not be transferrable to other countries and may not be reflective of younger medical student and older clinicians. The interviewer was known to most of the participants which, on one hand, may exaggerate the propensity of participants to give socially desirable answers in the context of behaviour – a phenomenon known as social desirability bias [39]; on the other, it may produce richer data due to the easy establishment of rapport and trust [40].”

Reviewer: 2

Dr. Stefania Manca, National Research Council of Italy

Comments to the Author:

The manuscript presents a qualitative study about how general practitioners and medical students perceive health professionals' behaviours on social media. The study is based on a number of interviews and participants were also asked to respond to vignettes that presented diverse degrees of unprofessional behaviour. The research is timely and presents a very significant topic for the developments of the medical profession. I have, however, a number of concerns and some recommendations to the authors which I hope they will take into account when revising the manuscript.

Response of the authors: we thank the reviewer for the positive overview.

First of all, I recommend extending the literature review. The subject of online professionalism has been surveyed in the medical literature for at least ten years. I invite the authors to provide a more articulate overview of this literature and to describe the most relevant problems and research gaps that their study intends to cover. Just as an example, I recommend looking at these recent studies: Enid Geyer, Elizabeth Irish, Amanda Hagzan & Alicia Wiczulis (2020) Social Media and Online Professionalism Integrated into Year 3 OB/GYN Clerkship#, *Medical Reference Services Quarterly*, 39:4, 359-369, DOI: 10.1080/02763869.2020.1826226

Pronk, S.A., Gorter, S.L., van Luijk, S.J. et al. Perception of social media behaviour among medical students, residents and medical specialists. *Perspect Med Educ* (2021). <https://doi.org/10.1007/s40037-021-00660-1>

Javad J. Fatollahi, James A. Colbert, Priyanka Agarwal, Joy L. Lee, Eliyahu Y. Lehmann, Neal Yuan, Lisa Soleymani Lehmann & Katherine C. Chretien (2020) The Impact of Physician Social Media Behavior on Patient Trust, *AJOB Empirical Bioethics*, 11:2, 77-82, DOI: 10.1080/23294515.2019.1678533

Wang et al. (2019). Social media usage and online professionalism among registered nurses: A cross-sectional survey. *International Journal of Nursing Studies*, Volume 98, October 2019, Pages 19-26

Christina L. Wissinger & Zack Stiegler (2019) Using the Extended Parallel Process Model to Frame E-Professionalism Instruction in Healthcare Education, *Teaching and Learning in Medicine*, 31:3, 335-341, DOI: 10.1080/10401334.2018.1528155

I also suggest using this reference for a commonly accepted definition of social media:

A.M. Kaplan and M. Haenlein (2010). Users of the world, unite! The challenges and opportunities of Social Media. *Bus. Horiz.*, 53 (1) (2010), pp. 59-68

Response of the authors: we are grateful for the pertinent studies and have re-written large parts of the introduction and discussion to incorporate them and other related studies.

Secondly, I advise adding a theoretical perspective to the study. The topic of personal and professional identity has been addressed in a wide cohort of theoretical approaches, including in social media research. I suggest referring to these theoretical lines of research to make the study more robust. From this point of view, I also recommend adding one or more research questions that the study can answer and thus contribute to research in the field.

Response of the authors: we have added a paragraph to the method section on conceptual framework.

“‘Communities of practice’ is a popular theory for conceptualising the development of medical professional identity [25], whereby the medical profession is understood both as a “collegial profession and community of practice”. The theory states that successful identity formation depends on a dynamic interplay between members of the medical community at different stages of the medical continuum. To this end social media can supplement but not replace “meaningful contact with members of the community”, which is considered in this framework to be the most important factor in professional identity formation [25].”

Thirdly, I recommend much more elaboration effort from the authors so that the case study can be generalised beyond the specific experimental context in which it was developed. In this sense, much more efforts are required to conceptualise the tensions of identity that medical students have to deal with.

Response of the authors: we have explored these tensions further in the Discussion section, referring to accepted theory and recent scholarly work in this area.

“The theme of ‘crafting an image’ refers to the efforts of medical students and physicians to portray themselves favourably on social media. This phenomenon has been described as an online “identity crisis” for medical professionals [28]. Researchers have warned of the problem of conflating “self-expression, self-promotion and self-communication” [29]. Recent research with health care professionals on the subject of ‘digital identity’ formation identified the potential for conflict when professional, personal, public and private identities did not align [30]. The ‘communities of practice’ theory of identity formation addresses how personal and professional identities should be congruent. To this end, role-modelling, mentoring, experiential learning, reflection, and support from medical educators are important.

The concept of dual relationships, whereby professionals and the public interact formally at times and informally at other times is brought to a greater level of acuity by social media where ‘context collapses’- a point emphasised in our data [31]. Formal education at medical school in digital professional identity formation in medical school curricula is thus important as is subsequent professional accreditation [32]. Some of the participants in our study were aware of which social media platforms to use for various purposes and how to use privacy settings to ensure safety. Several of the study participants called for medical council guidance on social media use but this in fact is already available. This may indicate the need for regular communication between accreditation bodies and both students and doctors as social media platforms change so rapidly. Scholars have called for

systematic approaches to the instruction of e-professionalism so that it can be incorporated into existing curricula [33].”

Finally, once the authors have addressed the issues reported above, I also recommend reviewing the discussion and conclusions, and adding more operational guidance for professional practice and some perspectives for future research.

Response of the authors: we have reviewed and strengthened the Discussion section and added the following section on operational guidelines to the conclusions:

- Medical educators should support students to use social media as a means of engaging in communities of practice with peers and senior colleagues.
- Existing medical curricula must incorporate social media policies and formal instruction on e-professionalism.
- Educators should acknowledge the tensions between personal and professional identities.
- Specific guidance is needed for students on what is appropriate to post and where and with whom it is appropriate to interact.
- We have identified a need for skills teaching on how identities are developed and the setting of boundaries and this may extend beyond social media use.

Reviewer: 3

Dr. Elisabeth Assing Hvidt, Syddansk Universitet Det Sundhedsvidenskabelige Fakultet

Comments to the Author:

Thank you for giving me the opportunity to review this article that treats an interesting and very timely subject matter about GPs' and medical students' use of and behaviour on social media.

The qualitative methodology is well chosen and the two-stage data generation process holds an interesting potential that is however, not fully developed or presented in the paper. My remarks center on the empirical and analytical part of the paper that must be strengthened.

The vignettes are at times used as a kind of triangulation - holding the accounts of the participants up against their reactions to the vignettes, but other than that the analysis appears superficial.

Furthermore, I lack an introduction to the content of the vignettes.

Also, the argument about data saturation lacks convincing power. How can one argue that data saturation has occurred in a small sample of five students and three GPs? And how come that you finished the data collection on a minimum number of participants? This is a very small sample, even for a qualitative study, and the analysis does not convey an understanding of "rich" data. The interviews were furthermore quite short 15-30 minutes as were the brief follow-up interviews - how long were they? Please provide more detail to that (length and context of the follow-up interviews) and please raise the small sample as a concern or a limitation in the manuscript. Please provide more depth to the analysis either by including more volume to the data extracts, providing more empirical examples or richer descriptions of the vignettes and analytical themes.

Response of the authors: we thank the reviewer for the insightful feedback which we have attempted to address, specifically in the Methods and Findings sections.

We have added the following to the Method section to give context for the vignettes:

“This study utilised a hybrid methodology whereby an in-depth, semi-structured interview based on a topic guide designed by the research team was followed, for some participants, by a second interview structured using short ethical dilemmas on social media described here as vignettes.”

and...

“The interview guide was developed by an interdisciplinary team, and vignettes were developed by two of the research team (ES, AOR) with the purpose of exploring students’ and clinicians’ responses to examples of unprofessional behaviour online by healthcare workers (supplementary material 2). These vignettes were designed so that doctors and medical students could give ethical and professional perspectives not simply on themselves but also on those with whom they work and will be working in their medical careers. Participants were asked to respond to three separate scenarios which required them to consider the ethical dilemmas and professional practice challenges of using social media personally and professionally. Where the themes explored in the vignettes were addressed by the participants in their initial interview they were not interviewed again with the aid of the vignettes.”

We have also added paragraphs and new quotations to support insights from vignettes and interviews in the Findings section. The vignettes also lasted 15-30 minutes.

“A very striking example of this is the extent to which doctors are now having to demarcate their public and private life is the remark from one GP about how they had been told to circumvent their social media behaviour at a wedding:

“I mean a lot of my friends would be on it [social media] who are doctors. I suppose you can try to make it as private as you can but I don't know if people entirely understand the rules of it, you know when pictures go up I don't think you're even able to take them down or that kind of thing. I think people are kind of wary of that you know when pictures are being taken on a night out or something you know people might say "don't put them on Facebook". I was at a wedding recently of a doctor and there was a request on the invite not to put any pictures up on social media.” (general practitioner, female)

Aside from doctors not being allowed to have a personal life, or having to be aware that parts of it may be captured inadvertently on social media such that they must take steps to prevent this, there is also the sense that the rules for social media usage are evolving but that this general practitioner and others are not clear what those rules are and who is deciding upon them:

“I don't know if people entirely understand the rules of it” (general practitioner, female)”

We have added the small sample size as a limitation to the research:

“Limitations of the study were its location in a single medical school in Ireland and the small sample size. The results may not be transferrable to other countries and may not be reflective of younger medical student and older clinicians. The interviewer was known to most of the participants which, on one hand, may exaggerate the propensity of participants to give socially desirable answers in the context of behaviour – a phenomenon known as social desirability bias [39]; on the other, it may produce richer data due to the easy establishment of rapport and trust [40].”

What impact did it have that the interviewer knew some of the participants on beforehand?

Response of the authors:

We have added the following to the limitations section:

“The interviewer was known to most of the participants which, on one hand, may exaggerate the propensity of participants to give socially desirable answers in the context of behaviour – a phenomenon known as social desirability bias [39]; on the other, it may produce richer data due to the easy establishment of rapport and trust [40].”

The data analysis section is very general - please provide more details about the proces from a priori themes to more final ones - what were the first, overall patterns in the data and how did it further develop?

Response of the authors: we have added the following paragraph to the Data Analysis section:

“Initially, the coders read the full interview texts to familiarise themselves with the raw data. Preliminary data coding was conducted independently with the use of a priori themes that the researchers expected to appear in the data; only a priori themes related to the research question were chosen. A priori themes included benefits of social media, personal and professional use, and potential pitfalls. The initial codes and themes were used to define a coding template, which had two functions: to allow the researchers understand the relationship between the codes and themes and to have flexibility so that more codes and themes could be added as the hierarchical analysis developed.”

Findings: The findings section lacks some clarity as to the meaning of the themes, e.g., what is the meaning to the theme: "The world has got smaller"? And how does this meaning relate to the two sub themes?

Response of the authors: we agree that the nomenclature of this first theme was unclear, and we have re-named it and explained it further:

“This theme refers to the practical, day-to-day applications of social media for medical students and GPs as people and as professionals. Social media has undoubted social and networking benefits, and these were highlighted by participants, as well as the challenging nature of the information available- which can help participants stay up to date but which can waste time also. This theme has been divided into two subthemes: ‘staying connected’ and ‘educational tool’.”

The second and third main themes are much clearer though.

The discussion section is interesting to read. The practice implication point that formal education in digital presence and identity building is needed is well argued for and appears convincing.

Please check the manuscript for typing errors - I have come across a few.

Good luck with the revision of the paper.

Response of the authors: we are grateful for the positive feedback and helpful critique.

VERSION 2 – REVIEW

REVIEWER	Manca, Stefania National Research Council of Italy, Institute of Educational Technology
REVIEW RETURNED	20-Sep-2021

GENERAL COMMENTS	Dear authors, I would like to thank you for the extensive revisions that have resulted in a much improved manuscript. I still have only one
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	concern which regards the section "Conceptual framework". In my opinion, it should be placed after the Introduction and before the Methodology so that the theoretical contribution of the study stands out. Also, the link between the theoretical and methodological parts should be more apparent.
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VERSION 2 – AUTHOR RESPONSE

Reviewer: 2

Dr. Stefania Manca, National Research Council of Italy

Comments to the Author:

Dear authors,

I would like to thank you for the extensive revisions that have resulted in a much-improved manuscript. I still have only one concern which regards the section "Conceptual framework". In my opinion, it should be placed after the Introduction and before the Methodology so that the theoretical contribution of the study stands out. Also, the link between the theoretical and methodological parts should be more apparent.

Response of the authors: We have moved the Conceptual framework section as a stand-alone section with the same title and placed it after the Introduction and before the Methodology. We have added the following paragraph to the conceptual framework to link the theoretical and methodological parts:

“A qualitative epistemic approach leads to a methodology which teases out the subjective experience of a research participant, and that is why interviews and responding to short vignettes were selected for this study. Given we are not trying to make an invariant real word truth claim, such as with large sample size quantitative studies, we chose a conceptual-methodological approach that investigated the depth and breadth of how medical doctors and students experience social media in their personal and professional lives. Thus, the theoretical contribution of our paper is to say that social media is not merely a communication tool but is a fluid medium in which people posit varying identities and often negotiate these with themselves, their colleagues, patients and with those in the social media sphere, and that it is particularly difficult for doctors as they expect so much from themselves and have so much expected from them by others.”