



Research article

Digital professionalism on social media: The opinions of undergraduate nursing students



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ABSTRACT

Background: Social media are a suite of popular online technologies that enable people to share and co-create digital content. Evidence suggests some nursing students utilise social media inappropriately but there is limited literature on nursing students' opinions of professionalism in online environments. This study aimed to examine the opinions of nursing students in relation to digital professionalism on social media.

Method: A descriptive, cross-sectional study was conducted with undergraduate nursing students in the United Kingdom ($n = 112$). An existing self-reported questionnaire was adapted for data collection. This was distributed to adult nursing students enrolled across all four years of a Bachelor of Nursing programme. Data were analysed using descriptive statistics.

Findings: Many nursing students were heavy social media users ($n = 49, 44\%$), with Facebook, Instagram, and Snapchat being the most popular applications. Nursing students were also aware of the professional nursing regulator, the Nursing and Midwifery Council, guidelines on responsible social media use ($n = 48, 43\%$). Nursing students' responses to various digitally professional scenarios revealed agreement that posts about alcohol or sexually explicit content, along with comments about colleagues or patients were inappropriate. However, there were mixed views around taking photographs at work, with some nursing students across all four years of the degree programme perceiving this to be satisfactory behaviour.

Discussion: The opinions of nursing students towards digital professionalism on social media are somewhat aligned with professional standards, although students can hold varying views on the subject. More research on how nursing students employ social media is warranted to ensure their opinions match their actual practice in online environments. It is also recommended to educate nursing students about the professional values and behaviours required on social media and how best to communicate, interact, and share information on the various online platforms, to minimise personal and organisational risk.

1. Introduction

Nurse education continues to develop and expand in response to changes in clinical practice, population health, and contemporary society. In recent times, the arrival and acceleration of information technology has heralded a transformation in some areas of nurse education. For instance, simulation education facilitates students to practice clinical skills in real-world hospital and home environments using patient mannequins, so they can learn nursing competencies in a safe and

stimulating setting (Shin et al., 2015). Another significant shift has been the introduction of e-learning, where a range of virtual environments are used in university settings to deliver digital educational content to facilitate student learning (Button et al., 2014). Nursing students are also beginning to use technologies such as smartphones and mobile applications to educate themselves in clinical practice, where it can be more challenging to learn in complex, busy environments (O'Connor and Andrews, 2018).

With the increasing use of Internet technologies and mobile devices,

Abbreviations: NMC, Nursing and Midwifery Council; U.K., United Kingdom; U.S., United States.

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nursing students can access online resources and social media platforms such as Facebook, Twitter, Instagram, and YouTube. This can bring benefits such as increased access to information for education, sharing resources and experiences with other students, and connecting with professional associations and qualified nurses among others (O'Connor et al., 2018; Schmitt et al., 2012). However, social media can also introduce individual and organisational risks such as misinformation (Bautista et al., 2021; Lee et al., 2020), harassment from others online (Pendergrast et al., 2021), violations of personal-professional boundaries (Moorhead et al., 2013), and legal issues such as breaches of patient privacy (Lambert et al., 2012; Ventola, 2014). For instance, Booth (2015) reviewed tweets posted by nursing students on Twitter in relation to their education and found vulgar and derogatory messages were posted on the platform. Similarly, Marnocha et al. (2015) surveyed Schools of Nursing in the United States (U.S.) and found some nursing students posted negative comments online about patients, colleagues, working environments, or the profession, along with profanity and breaches of patient confidentiality. Furthermore, Westrick (2016) described cases in the U.S. where nursing students were dismissed from baccalaureate programmes due to inappropriate use of social media. Hence, there have been calls to educate nursing students about how to be professional in digital environments to protect patients, the public, and the nursing profession (Mather and Cummings, 2019; O'Connor et al., 2020).

Cain and Romanelli (2009) define digital professionalism as “the attitudes and behaviors (some of which may occur in private settings) reflecting traditional professionalism paradigms that are manifested through digital media”. Although digital media can encompass a wide range of electronic devices and software applications, social media have unique features, such as the openness of the platforms and the ability to follow other users and share content easily, and a specific digital culture that make it distinct from other technologies (Grajales et al., 2014). While digital professionalism is not clearly stated as a required competency in some internationally recommended guidelines on health informatics education, it is indirectly referred to (American Nursing Association, 2015; Mantas and Hasman, 2017), and is explicitly noted in the Australian Nursing and Midwifery Digital Health Capability framework (Australian Digital Health Agency, 2020). In addition, some regulatory and professional associations in nursing have published guidelines on how to use social media responsibly (National Council of State Boards of Nursing, 2020; Nursing and Midwifery Council, 2019). A recent review of how digital professionalism on social media is taught across medical, nursing, and allied health only included three studies related to undergraduate nursing education (O'Connor et al., 2021). Two of these focused on the use of Twitter (Jackson et al., 2018; Jones et al., 2016) and one study had a mixture of nursing, medical, and allied health students who used social media (mainly Facebook) (Bouldrick, 2014). These studies focused on pedagogical interventions to help students learn about the importance of digital professionalism and teach them how to use these online platforms appropriately.

Other research has reported the opinions of healthcare students on being professional in virtual settings such as on social media, which ranged from having relaxed to more conservative views (Chretien et al., 2010; Dobson et al., 2019; Hall et al., 2013; Neville and Waylen, 2015). For example, Chretien et al. (2010) noted that medical students in the U.S. experienced a conflict of identify online and were somewhat ambivalent towards content they posted on Facebook. Similarly, Dobson et al. (2019) found dental students in the United Kingdom (U.K.) were aware of professional guidelines around social media use but their own personal views on this tended to be complex and sometimes contradictory to professional recommendations. Students' opinions are important to understand as they can inform their professional practice, which can impact patient care and health service delivery. They can also be used to guide the design and delivery of pedagogical interventions in higher education. However, the current evidence on the opinion's healthcare students hold in relation to digital professionalism is drawn from the

undergraduate medical, pharmacy, and dental professions, with others such as nursing being absent. Therefore, an empirical study about the opinions of undergraduate nursing students related to digital professionalism on social media is warranted, as limited scientific literature exists and nurses are a unique group of clinicians who directly affect patient care. To address this knowledge gap, this study aimed to examine the opinions of undergraduate nursing students in relation to digital professionalism on social media.

2. Methods

2.1. Study design

This study adopted a pragmatic, cross-sectional descriptive design to examine the opinions of undergraduate nursing students towards digital professionalism on social media. A team of nursing researchers, two of whom were faculty specialising in nursing informatics and two of whom were students (one undergraduate and one postgraduate), undertook the study.

2.2. Sampling and setting

The study population included undergraduate general adult nursing students drawn from 1st, 2nd, 3rd, and 4th years of a Bachelor of Nursing programme in one Scottish university. In the U.K., separate degree programmes exist for children's nursing, learning disability nursing, and mental health nursing which were not available at this university, limiting the sample population to general adult nursing students. Nursing students are taught the principal values and behaviours of nursing in first year as required by the Nursing and Midwifery Council (NMC), the professional nursing regulator in the U.K. The NMC Code outlines the professional standards that are required for nurses which encompass practising safely, with respect and dignity, and being accountable among others (Nursing and Midwifery Council, 2018). In section 20 of the NMC Code, which focuses on upholding the reputation of the profession at all times, it refers specifically to how nurses and midwives should communicate stating: “use all forms of spoken, written and digital communication (including social media and networking sites) responsibly, respecting the right to privacy of others at all times”. These values are integrated into curricula in each year of the nursing programme so students acquire the knowledge and skills to be competent and professional practitioners on graduation. Therefore, this study utilised purposive sampling to reach all four groups of general adult nursing students to capture a range of opinions from students at various stages of their training. Inclusion criteria were nursing students aged 18 years and above and enrolled in a full-time general adult nursing degree programme. Exclusion criteria were students under 18 years of age.

2.3. Data collection and analysis

A 21-item questionnaire was adapted from a similar study on digital professionalism on social media conducted with undergraduate dental students in the U.K. (Dobson et al., 2019). Only one question was modified, to include the nursing regulatory body in the U.K., otherwise it remained the same as the originally reported measurement tool (see Appendix 1). In addition, it has not undergone validity or reliability testing, so its psychometric properties remain unknown. The self-reported questionnaire comprised four sections:

- 1) *Patterns of social media use* – incorporated questions on the forms of social media used, devices for accessing social media, and frequency of use,
- 2) *Student opinions of digital professionalism on social media* - included questions on how students would define digital professionalism, their awareness of professional regulatory guidelines on the topic,

and how they would respond to a range of situations around professional behaviour on social media,

- 3) *Public access to your social media* - comprised questions on privacy settings on social media, public access to content posted, and photographs and status posted by students, and,
- 4) Demographics covered questions on age, gender, and year of education.

The questionnaire included multiple choice questions, Likert style scales, and open-ended text boxes to prompt more detailed information. A total of 162 paper-based questionnaires were circulated at the beginning of undergraduate teaching sessions, from November 2019 to February 2020, to attain the maximum number of respondents. A short five-minute presentation on the study was delivered to each group prior to their class starting or finishing, before the questionnaires and consent forms were distributed. The voluntary nature of participation was highlighted, as was the confidentiality and anonymity of any data provided. A total of 112 signed consent forms and questionnaires were returned, a response rate of 69%. Due to the impact of the coronavirus pandemic, there was a delay in analysing and reporting the study's results. Data were entered into Microsoft Excel and descriptive statistics employed to summarise the results and show the frequencies of responses.

2.4. Ethical considerations

Favourable ethical opinion was granted for this study by a university research ethics committee (Ref: STAFF169) and informed consent obtained from all participants. To help minimise response bias and undue influence on students choosing to participate, questionnaires were administered by a researcher who was not teaching the participant groups (van de Mortel, 2008), and anonymity maintained through the use of participant identification numbers on each questionnaire.

3. Results

3.1. Demographic characteristics

One hundred and twelve undergraduate adult nursing students, across four years of a Bachelor of Nursing degree programme, completed the questionnaire. The majority were female and ranged in age from 18 to 23 years, although a few participants did not report any demographic data (see Table 1).

3.2. Patterns of social media use

Facebook, Instagram, Snapchat, and Twitter were the most popular social media platforms among by nursing students, with the majority using multiple platforms (see Table 2). Additional social media

Table 1
Demographic characteristics.

Student characteristics	1st year n,	2nd year n,	3rd year n,	4th year n,
	% n = 39	% n = 28	% n = 27	% n = 18
Age				
18–23 years	33, 87%	27, 96%	27, 100%	15, 83%
24–29 years	3, 8%	0, 0%	0, 0%	1, 6%
30–35 years	0, 0%	0, 0%	0, 0%	1, 6%
36–41 years	2, 5%	0, 0%	0, 0%	0, 0%
41+ years	0, 0%	0, 0%	0, 0%	0, 0%
Not reported	1, 3%	1, 4%	0, 0%	1, 6%
Gender				
Female	35, 92%	24, 86%	26, 96%	15, 83%
Male	2, 5%	2, 7%	1, 4%	2, 11%
Not reported	2, 5%	2, 7%	0, 0%	1, 6%

Table 2
Patterns of social media use among nursing students.

Social media platforms used	n, %	Daily hours of social media use	n, %
Facebook	106, 95%	0–1 h	7, 6%
Instagram	101, 90%	1–2 h	36, 32%
Snapchat	83, 74%	2–3 h	43, 38%
Twitter	53, 47%	3 or more hours	24, 21%

Device for accessing social media	n, %	Number of times per day social media sites are checked	n, %
Mobile phone	106, 95%	0–2 times per day	1, 1%
Laptop	84, 75%	2–4 times per day	6, 5%
Tablet computer	22, 20%	4–6 times per day	20, 18%
Personal computer	2, 2%	6 or more times per day	76, 68%

Social media usage	n, %	Reasons of social media use	n, %
Very heavy use	19, 17%	Talking with friends	105, 94%
Heavy	49, 44%	Keeping up with events	95, 85%
Moderate	36, 32%	Posting pictures	72, 64%
Occasional user	6, 5%	Other	9, 8%
Never use it	1, 1%		

applications used included WhatsApp ($n = 8, 7\%$), Pinterest ($n = 4, 4\%$), Tik Tok ($n = 3, 3\%$), and YouTube ($n = 3, 3\%$). Nursing students used a range of mobile devices to access social media from a mobile phone, to a laptop, tablet computer, and personal computer. Most nursing students reported they were heavy or moderate users of social media, with most accessing it 2–3 h per day, and the majority checked their social media accounts six or more times each day. Finally, nursing students used social media mostly to talk with friends, keep up with events, and post pictures. A handful of students noted other reasons for using these online platforms which included entertainment (i.e., watching videos), procrastinating, being inquisitive about the lives of family, friends and others, following political or social movements, learning, and sourcing customers for self-employed work.

3.3. Student opinions of digital professionalism on social media

Almost half of the undergraduate nursing student group ($n = 53, 47\%$) acknowledged that they knew what digital professionalism was and many were aware of the NMC guidelines on responsible social media use ($n = 48, 43\%$). When asked to briefly describe digital professionalism in their own words, nursing students across the four years provided a range of explanations but were cognisant of the need to not post anything offensive or confidential in line with professional standards (see Table 3). Nursing students gave a range of answers when asked to judge a number of possible scenarios regarding social media use and whether they thought the conduct in these situations to be professional or not (see Table 4). Interestingly, a handful of nursing students across all groups reported it was satisfactory to post pictures in the company of others with alcohol or themselves under the influence of alcohol, which was more prevalent in the 3rd year nursing group, while a minority of 1st year students believed it satisfactory to post content involving or referring to illegal substances. This may reflect the complexities of navigating the boundaries between personal and professional life when interacting on social media, particularly given the digital cultures that nursing students are exposed to on various social media platforms which

Table 3
Nursing students' descriptions of digital professionalism on social media.

1st year nursing student	<p>"Remaining professional online for example, don't post offensive pictures, language etc. Don't post information about patients online or talk badly of your workplace"</p> <p>"Acting in a professional and appropriate way on some patterns in accordance with how you would be expected to act face to face"</p>
2nd year nursing student	<p>"Using social media for work but in a way that follows guidelines and restrictions"</p> <p>"Knowing how to use digital platforms and devices appropriately in the place of work"</p>
3rd year nursing student	<p>"Presenting yourself in an appropriate manner online. Not breaking confidentiality, posting inappropriate images or writing profanities."</p> <p>"Being professional in how you conduct yourself online; contact that is underpinned by the NMC Code and guidelines and how you would be seen to act as a professional."</p>
4th year nursing student	<p>"As a professional how to act accordingly. Protecting yourself, service users and members of the public. Making sure you don't share others information."</p> <p>"Not posting anything indecent, conducting yourself in an appropriate manner, keeping yourself safe."</p>

promote openness, interaction, and sharing of content. In addition, a number of nursing students across all years reported that posting photographs of themselves at work or photographs of colleagues or patients on social media was satisfactory, with a few reporting it to be quite professional. However, the context within which this may occur was not captured in the questionnaire, as posting this type of content on social media could be positive or negative in nature in terms of acceptable digital practice. Interesting, the majority of nursing students across all groups reported that rejecting a friend request from someone they did not know on social media was quite or very professional. This may reflect students' efforts to reduce negative experiences on social media by limiting access to their personal accounts and information.

3.4. Public access to your social media

In terms of nursing student's opinions of public access to social media, the majority seemed aware of the privacy settings on their accounts ($n = 105$, 94%), and thought a member of the public could find their online profile ($n = 88$, 79%), but only a minority believed the public could access their photographs or profile status without accepting them as a 'friend' ($n = 17$, 15%). Very few nursing students used the Google search engine to check if the privacy settings on their social media accounts allowed the public to view their profile or not, and nearly all nursing students reported withholding photographs from social media sites that they would not want an employer or patient viewing. Similarly, the majority of nursing students did not set a status on a social media platform that they would not want an employer or patient to see. Finally, most students reported patients never found them on social media (see Table 5). For the handful of students that did, the reasons given included 'Patient saw name on name badge and wanted to involve me in a project of his. Added me on Facebook. This was declined as soon as I finished my shift' and 'Someone from a Respite Centre I work at told me but that is because I was tagged in the Charity's photo'.

4. Discussion

This is the first study to examine the opinions of nursing students on digital professionalism on social media. It showed that most undergraduate nursing students were heavy users of social media sites such as Facebook, Instagram, and Snapchat. The primary reasons for utilising these online platforms were to converse with friends, keep up with events, and post pictures. This study's findings are in keeping with other literature that has reported medical students rarely monitor their online presence (Kitsis et al., 2016), and can lack self-awareness about having a

digital online footprint that can be viewed by patients and the public (Walton et al., 2015). Kenny and Johnson (2016) also found similar levels of self-perceived risks associated with social media among dental students. However, an international survey across seven countries (China, Mexico, Ireland, Canada, United Kingdom, Hong Kong and Australia) found that only 35% of health science students had received specific social media training (O'Sullivan et al., 2017), highlighting a gap in the provision of higher education. Others have reported practising nurses using social media inappropriately or witnessing colleagues doing so (Wang et al., 2019). De Gagne et al. (2018) emphasise that clear policies and guidelines on social media are required at a nursing faculty level within universities, to address cyber-civility, and prevent legal and ethical violations online. They also call for guidelines to include issues such as how to deal with discrimination and harassment that occurs on these digital platforms, along with how to use mobile phones appropriately, to prevent personal and organisational reputations being damaged and patients and their families potentially being put at risk. These additional aspects of being digitally professional also warrant further research among nursing students, faculty, and staff in practice.

Although almost half the nursing students in this study thought they knew what digital professionalism was and were aware of professional guidelines on social media use, students might benefit from explicit education on how to use social media (Price et al., 2018), given the personal and organisational risks that the inappropriate use of these online technologies pose. The benefits of utilising these global digital communication tools for social support for patients and carers (Sendra et al., 2019), public health education (Giustini et al., 2018), professional development and career networking, or being politically active (O'Leary et al., 2021) could also be taught to nursing students. A recent review of pedagogical interventions for teaching digital professionalism to healthcare students can offer a guide on the types of approaches that might enhance learning (O'Connor et al., 2021). More research in this area would be welcome, as only eleven studies were included in the review. Furthermore, Dobson et al. (2019) recommended repeating or revisiting social media guidelines as students' progress in their studies, as new online applications such as TikTok are appearing (Bruno, 2020), and data security and privacy settings are changing in line with legislation and regulation in some countries (Houser and Voss, 2018). Hence, the opinions and practices of nursing students may shift as contemporary society adapts to newer forms of social media, the coronavirus pandemic, and other social and political changes, which may require educational materials on digital professionalism to be updated and refined over time.

Nursing students in this study largely agreed that posting images that were explicit or involved alcohol or illegal substances and commenting about clinical colleagues or patients on social media was unprofessional. This differs from reports that some nursing students tweeted derogatory comments about others online (Booth, 2015; Marnocha et al., 2015) and breached patient confidentiality by discussing clinical cases on social media (Westrick, 2016). A minority of students in this study reported posting photographs of colleagues or patients online was satisfactory, suggesting nursing students practice on social media may be different from opinions they hold on digital professionalism. Some also took steps to limit who could view their personal information on social media. Therefore, the boundaries between personal and professional use of social media and what is deemed acceptable digital practice in nursing needs more in-depth examination, given the complexities of these platforms and the digital cultures that pervade online. Furthermore, students' efforts to limit access to their social media accounts by rejecting friend requests from people they do not know could indicate concerns they may hold about personal privacy and security, given that women tend to experience abuse and harassment online (Eckert, 2018; Pendergrast et al., 2021), and identity theft and cyber fraud can occur (Bateman and Willems, 2012; Levi et al., 2016). Hence, gender differences between how male and female nursing students use social media and practice digital professionalism may be helpful to explore, to

Table 4
Nursing students' opinions of scenarios on social media use and levels of professionalism.

	Year 1 (N = 39)					Year 2 (N = 28)					Year 3 (N = 27)					Year 4 (N = 18)				
	Not at all prof	Not really prof	Satis	Quite prof	Very prof	Not at all prof	Not really prof	Satis	Quite prof	Very prof	Not at all prof	Not really prof	Satis	Quite prof	Very prof	Not at all prof	Not really prof	Satis	Quite prof	Very prof
Pictures involving yourself under the influence of alcohol	21	16	1	0	0	14	12	1	0	0	7	7	13	0	0	8	8	2	0	0
Pictures in the company of others with alcohol	13	20	4	1	0	2	20	5	0	0	3	7	17	0	0	2	10	5	0	0
Sexual or provocative pictures of yourself	34	4	0	0	0	23	4	0	0	0	21	3	3	0	0	14	3	1	0	0
Sexual or provocative pictures of others	33	5	0	0	0	20	7	0	0	0	22	2	3	0	0	14	4	0	0	0
Pictures taken behind the wheel whilst driving	29	6	3	0	0	17	4	6	0	0	18	4	4	1	0	12	3	3	0	0
Pictures involving or referencing illegal substances	37	1	1	0	0	24	2	0	0	0	26	1	0	0	0	18	0	0	0	0
Statuses involving or referencing illegal substances	37	1	1	0	0	25	1	0	0	1	25	1	0	0	0	18	0	0	0	0
Posts involving or referencing illegal substances	37	1	0	0	0	24	2	0	0	1	24	2	0	0	0	16	2	0	0	0
Statuses discussing staff	34	4	0	0	0	25	2	0	0	0	26	1	0	0	0	17	1	0	0	0
Comments discussing staff	33	5	0	0	0	25	2	0	0	0	26	1	0	0	0	17	1	0	0	0
Statuses discussing colleagues	33	5	0	0	0	25	2	0	0	0	26	1	0	0	0	16	1	0	0	0
Comments discussing colleagues	33	5	0	0	0	24	2	0	0	0	26	1	0	0	0	17	1	0	0	0
Statuses referring to patients	38	0	0	0	0	27	0	0	0	0	27	0	0	0	0	18	0	0	0	0
Comments referring to patients	38	0	0	0	0	27	0	0	0	0	27	0	0	0	0	18	0	0	0	0
Photos of yourself in uniform	5	16	17	0	0	3	9	11	4	0	7	7	14	0	0	3	4	10	0	0
Photos of yourself at work	10	19	8	0	0	6	16	5	0	0	9	10	8	1	0	3	7	8	0	0
Photos of staff	17	13	7	0	0	6	12	7	1	0	10	9	7	1	0	3	9	6	0	0
Photos of patients	37	0	1	0	0	27	0	0	0	0	26	0	1	0	1	18	0	0	0	0
Rejecting a friend request from a patient	6	0	4	4	29	0	0	0	2	25	0	0	0	3	24	2	0	0	0	16
Rejecting a friend request from someone you don't know	6	0	4	7	26	1	0	0	7	19	0	0	3	4	19	1	0	3	0	14
Not allowing friends to post pictures of you without permission	6	0	4	10	23	1	0	2	5	19	0	0	1	7	19	0	0	3	1	14

Legend: Not at all prof = Not at all professional; Not really prof = Not really professional; Satis = Satisfactory; Quite prof = Quite professional; Very prof = Very professional.

Table 5
Public access to social media.

Aware of current privacy settings on social media	n, %	Google's yourself to check privacy settings on social media are secure	n, %
Yes	105, 94%	Yes	8, 7%
No	2, 2%	No	101, 90%

Public can find your profile on social media	n, %	Pictures on social media sites that you would not want employers to see	n, %
Yes	88, 79%	Yes	14, 13%
No	20, 18%	No	94, 84%

Uses real name on social media	n, %	Statuses on social media sites that you would not want employers to see	n, %
Yes	73, 65%	Yes	4, 4%
No	13, 12%	No	104, 93%
Only on some forms of social media	22, 20%		

Public can access your photos or statuses without being a "friend"	n, %	Patient found you on a social media site	n, %
Yes	17, 15%	Yes	4, 4%
No	68, 61%	No	103, 92%

understand the rationale for beliefs they hold and behaviours they exhibit online and how to encourage appropriate digital practice.

The popularity and pervasiveness of social media means its use among nursing students is likely to continue. Further research on how nursing students engage on these digital platforms across multiple learner groups, universities, and geographic regions would be useful to explore, to inform pedagogical and professional practice (Booth et al., 2021). More robust research instruments that measure specific aspects of digital professionalism would also be welcome, to enhance our knowledge of this phenomenon, and improve the design of pedagogical interventions that support student learning. This could help reduce the risks from unprofessional behaviour online, while maximising how nursing students could utilise social media to benefit themselves, the profession, patients, the health service, and wider society. Placing limits on how nurses participate on social media should be balanced to ensure the voice of the nursing profession can continue to reach and influence patients, the public, policy makers, and others who use these digital tools to communicate and share health information online (Mariano et al., 2018).

4.1. Strengths and limitations

Strengths of this study include the in-depth student opinion taken and the adaptation of an existing questionnaire on student opinions about digital professionalism on social media which was informed by relevant literature, so pertinent questions on the topic could be asked and answered. Both quantitative and qualitative data were collected, providing fresh insights on nursing students opinions about being professional on social media platforms. However, the study was limited as the questionnaire used had not undergone psychometric testing and was a self-reported measure which may have introduced some response bias,

affecting the study's validity and reliability. In addition, the sample was drawn from a general adult nursing programme in one university, and at a single timepoint, in the U.K. Hence, the views of nursing students in other regions were excluded, as were those of postgraduate nursing students and qualified nurses in professional practice. This may restrict the generalisability of findings to other populations and settings. Therefore, capturing the views of nurses in professional practice about digital professionalism on social media could add more depth to our understanding of how nurses use these virtual spaces, particularly during times of social and political crisis (O'Leary et al., 2021). This could help identify positive as well as poor practice related to being digitally professional on social media, enabling nursing faculty to design and deliver educational programmes that support nurses to capitalise on the benefits and limit the risks of using these global digital communication tools.

5. Conclusion

This is the first study to capture the opinions of nursing students about digital professionalism on social media. It appears nursing students use multiple social media platforms on a regular basis for both personal and professional reasons. Their opinions of digital professionalism are somewhat aligned with professional standards, although they can hold varying views on the subject. Inherent risks with utilising these online spaces, means nursing students require specific training and education on how to use social media in accordance with standards required for professional practice. Clear policies and guidelines on social media use from nursing faculty and professional associations are also necessary to enable students to capitalise on the benefits these global digital communication platforms bring in safe and secure ways. More research on which pedagogical interventions work best to teach nursing students about digital professionalism and social media is needed, along with examining students' communicative practices on the various online platforms. This would add useful scientific knowledge that could inform education, policy, and nursing practice.

Funding sources

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Data sharing

Ethical approval and consent to share the study's data in an open access repository or with external researchers or organisations was not sought or granted and therefore it is unavailable to access.

Credit authorship contribution statement

SOC conceptualised and designed the study. SOC and TO collected the data with support from RGB. SOC led the analysis and interpretation of data with support from TO, PMS, and RGB. SOC wrote the first draft of the manuscript. All authors reviewed and edited the manuscript, and approved the final version.

Declaration of competing interest

None.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.nedt.2022.105322>.

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