**Abstract**

**Objectives:** The aim of this review was to explore student nurses’ professional use and understanding of social media.

**Design and data sources**: A comprehensive search was performed in October 2017 using CIHAHL, Academic Search Complete, Education Search Complete, ERIC, MEDLINE and British Education Index. A further search was completed in February 2018 including Google Scholar.

**Review methods:** A summary table was used to organise data by author, year, type of study, methods, findings, limitations, recommendations and additional comments. Qualitative findings were organised into related themes and these were reviewed and discussed amongst the authors to confirm their relevance.

**Results:** The prevalent themes that emerged were; understanding social media, perceptions of professional & safe social media use, positive aspects of social media and factors influencing social media usage.

**Conclusions:** Social media is predominately used by students to communicate with peers and to access course related information. It can provide a collaborative environment which allows engagement and promotion of the nursing profession. Student nurses are generally aware of what constitutes safe and professional social media usage but there remains a need for additional training on how to navigate the online world as there remains a significant risk of unprofessional behaviours.

**Keywords:** Nursing students, Social media, Professional Development, Nurse Education.

**Introduction**

The increasing influence of social media has provided student nurses with a new realm of knowledge. Social media offers the potential to interact with peers and experts to keep up to date with nursing practice (Wilson et al. 2014). Despite the positive prospects provided it is often viewed with suspicion and fear. Online platforms may provide healthcare practitioners the opportunity to display unprofessional behaviours relating to patients, carers, relatives, colleagues and employers (Jones & Hayter, 2013). This review of contemporary literature provides some context in relation to student nurses interaction and engagement with social media, examining their perceptions of safe and professional use.

**Aim**

The aim of this review was to explore student nurses’ professional use and understanding of social media.

**Inclusion criterion**

Any article involving healthcare students and social media

Only articles published in English

No narrowing of publication year was required at this stage as this is a contemporary topic of research

**Exclusion criterion**

Any studies involving patient-led social media,

Patient education and health promotion initiatives.

**Search strategy**

An initial literature search was completed using appropriate search terms as identified in Table 1. [Insert Table 1 here]

It was important to carry out a comprehensive review, which not only focused on nursing and healthcare related studies but also on educational theory and pedagogy. As can be seen in Table 1 the search yielded 102 articles, of these, fifteen articles were deemed to be relevant to the topic.

A further search was undertaken with more general search terms that identified three relevant articles [Insert Table 2 here]

[Insert Figure 1 here]

Additional searches were performed by reviewing the cited references within the initial publications. This was a useful source of information and identified an additional 8 papers. Articles deemed not to be relevant generally focused on patient education, patient communication forums, patient engagement or an unsuitable demographic - for example one article explored urologists’ use of social media which is not generalisable or relatable to the experiences of student nurses. To ensure the search was as thorough as possible a discussion with a colleague who has significant experience in the field of social media in nursing identified some further well-known authors resulting in 3 more suitable publications. The final search utilised Google Scholar, which did not yield any more suitable articles but did reassuringly identify the majority of the papers already selected. A total of 26 papers were reviewed (see figure 1).

A thorough review was carried out of all relevant papers and a brief summary of each article documented, where and when the research took place, the aims, the methods used, the findings, any limitations and any recommendations (see table 3). The prevalent themes that emerged were understanding social media, perceptions of professional & safe social media use, positive aspects of social media and factors influencing social media usage.

**Identification of social media habits and usage**

In order to understand any phenomena it must be observed and described before it can be understood. Eight publications reported the social media habits of students (Garner and O’Sullivan 2010, Chretien et al. 2010, Giordano & Giordano 2011, Maloney et al.2014, Usher et al.2014, Benetoli et al.2015, Ferguson et al.2016, Mather et al.2016). One of the most comprehensive studies investigated Australian health professional students from a variety of courses with the majority being student nurses (Usher et al.2014, Mather et al*,* 2016). This cross-sectional study of 637 first year and 451 final year students explored social media usage at twelve universities using an online survey devised by Giordano and Giordano (2011). Both groups provided similar results with around 50% of students using online media as their primary source of information and Facebook being the most widely used social media platform with at least 91% of students utilising it. This research suggested that universities need to engage with students via social media. Their study was limited because they did not fully identify the motivations for using social media. The high prevalence of Facebook usage among health students is comparable to the findings of Benetoli et al.(2015) who reported in their systematic literature review between 76% and 100% of pharmacy students had an account. Bentetoli did not identify whether these accounts were solely for personal use or whether they were also used for professional activities.

There is some evidence of smaller scale studies that have tried to explore the habits of students navigating social media, Maloney et al.(2014) carried out a survey of 142 physiotherapy students and discovered the two main drivers for using social media were peer collaboration and enhanced communication which enabled accessible and instantaneous conversations with fellow students and university staff. Ferguson et al.(2016) carried out focus groups and agree that collaboration is a key factor in social media engagement but with the added caveat that this is carried out at a ‘safe distance’. The students reported it be a less intrusive way to communicate compared to phoning or direct one-to-one communication. The studies discussed here indicate the majority of health professional students use social media regularly. They find it helpful in communicating with fellow students and sourcing information relating to their studies. Importantly these studies indicate a professional use by students even if it is unintentional.

**Professional and safe social media use**

a number of researchers, (Garner & O’Sullivan 2010, Jain et al.2014, Maloney et al.2014, Nyangeni et al.2015, Ferguson et al.2016, Barnable et al.2018 have explored the perceptions of what is ‘safe’ whilst using social media. All of these research with the exception of the South African study (Nyangeni et al. 2015) discovered that the majority of students understood the general concepts of what was meant by professional use of social media. Students in South Africa did not appear to appreciate patient confidentiality with all students indicating they took pictures of patients and shared this on social media platforms. This information was reported directly to the researcher and despite this being an unprofessional behaviour, it was not escalated or reported for further investigation. This may, however be linked to cultural practices and local nursing council regulations. In the UK post Francis Report there is a clear need to inform the relevant authorities and not to allow such behaviours to continue (Francis, 2015).

Despite most students having an awareness of unprofessionalism, there were some causes for concern identified. Barnable et al.(2018) found 34% of pharmacy students in one university in Canada were aware of other students who had breached confidentiality, although the nature of these breaches is not quantified. Westrick (2016) explored some recent cases of online misconduct and their consequences with one student nurse being dismissed from the course for posting a picture of a patient online, she also posted the hospital the patient was being treated in meaning he could be identified. Another nursing student had a blog page and discussed a clinical error that occurred. The incident was written in such detail that it could be determined where it took place; again, this student was dismissed. It is not only students who have issues with unprofessional online behaviour 67% of senior doctors reporting that they believe there are photos on Facebook that may compromise their professionalism (Osman et al. 2012). It is pertinent to note that the same group of doctors did not identify any colleagues behaving unprofessionally on Facebook – this seems unlikely if such high numbers feel they have personally compromised their professionalism. This is perhaps the main flaw of all the studies discussed so far – the reliance on self-reporting as well as the lack of guidance to help staff identify what is acceptable and unacceptable online professional behaviour regarding social media.

Jain et al. (2014) study examined students, lecturers and the public’s perceptions of appropriate postings on social media. The participants were unaware that these were fictitious posts prior to the study, this gained ethical approval and gave a more realistic response to these posts. A series of fictitious posts were created relating to topics such as illegal substance use, comments on patients, kissing (same-sex pairs and opposite sex-pairs) – the viewers were asked to rate the appropriateness of the image using a Likert scale. The overall findings found that the public and staff were more conservative than students although all groups were in agreement of the unprofessional manner of topics such as disclosing patient information and illegal drug use. The one area where there was some difference of opinion was same-sex relationships with the students having fewer issues with this than the public and university staff. This reflects the current changing public attitudes with only 41% of those born in the 1940’s agreeing that same-sex relationships are acceptable compared with 73% of those born in the 1980’s (NatCen Social Research, 2016). Social media has the power to affect change by instigating societal participation allowing individuals to communicate easily and freely and can have the power to break down long-held prejudices (Ahlqvist et al, 2010).

A worrying and emerging trend is the increasing prevalence of cyber-bullying, which was identified, in a systematic review carried out by de Gagne et al.(2016). The review found there were cases of cyber-bullying reported via the university online learning environment (OLE) and these were not only directed towards students but also university staff. Marnocha et al.(2015) surveyed 293 US schools of nursing to identify unprofessional behaviours and how these were managed, 11% of incidents were in relation to cyber-bullying – with one incident concerning two nursing students exchanging words on social media and this then spilling into a dispute in class. This type of behaviour does not only exist in nursing students’ communities, it is an increasingly reported phenomenoa in wider society, particularly amongst school children (Walrave & Heirman 2011, Monks et al.2012).

The studies discussed here predominantly reported that students had an awareness of what constituted safe and professional social media use. Despite the self-reporting of appropriate use, there were instances of unprofessional behaviours resulting in student’s dismissal from their studies and also an emergence of cyber-bullying against fellow students and university staff.

**Positive use of social media**

The majority of published studies focused on the negative impacts of social media, however there are positive outcomes associated with its use. Ferguson et al.(2016) carried out research into first year nursing students’ experiences of social media during the transition to university. From their focus groups interview they concluded that students found social media particularly helpful when discussing forthcoming assignments and in particular when this involved group work. This was a very small study of ten students and it cannot be considered to be applicable to all students, however the benefits of engaging with peers on social media was confirmed by Maloney et al.(2014) who identified peer collaboration as a commonly reported theme by physiotherapy students. When reviewing some of the research in relation to social media platforms other than Facebook there appears to be more benefits reported; with Twitter being identified as an effective communication tool, which permits students to engage in a safe environment (Sinclair et al.2015; Stephens and Gunther, 2016). Social media is undoubtedly here to stay and the focus needs to shift from its dangers to its benefits.

**Influencing factors when using social media: Age and experience**

Research into the benefits and risks of social media use amongst student nurses is gaining momentum but the experiences and usage of social media can have other influencing factors for example demographics. In particular, the age of students has been explored in some research studies (Osman et al.2012, Usher et al.2014, Benetoli et al. 2015, Copeland & Knudson 2016, Mather et al.2016). A mixed method survey of first, second, third and fourth semester students by Copeland and Knudson (2016) initially discovered that second semester students were the least likely to display unethical behaviours, this seemed to contradict the rest of their findings and the general assumptions younger people are generally the most irresponsible online users. On further investigation, it was discovered that this cohort of students were on average older than any other which the study concludes is supporting evidence that age is a reliable variable when identifying unethical behaviour. This assumption is questionable as there may have been other influencing factors, perhaps in relation to some teaching on social media use or as this was self-reported data the older students may have preferred not to identify unprofessional online behaviours.

Osman et al.(2012) surveyed a cross-section of students, foundation doctors and senior doctors identifying the average age of each group with the student group being the youngest. Their findings in relation to safe social media use were not clear-cut but they did find the students were more likely to have installed privacy settings on Facebook than the other groups; however, they were the most prolific users of such sites. Health Education England commissioned a report exploring the generational differences and how this will affect the future NHS workforce. The report identified Generation Z born between 1995 and 2010 as ‘digital natives’ and digital connectivity as ‘important as breathing’ (Jones et al.2015).

**Studies not involving Facebook**

The majority of research discussed so far involved the use of Facebook with limited studies investigating other social media platforms; this is likely due to the prevalence of Facebook with it being the most popular site worldwide reporting 2 billion users (Fortune, 2017). The second most studied platform is Twitter with Booth (2015) finding 498 tweets from nursing students collected over a six day period in 2011. This study found that the majority of tweets were often what was identified as declarative or questioning statements. Similar to Facebook there were some that were categorised as vulgar or derogatory and appeared to be a direct consequence of an annoyance or course related stressors. Conversely Sinclair et al. (2015) discovered an unexpected positive outcome of a planned Twitter chat aimed at student nurses to discuss their experience of clinical placements. It turned into a global event with honest thoughts and solutions being suggested that often would not have been offered in ‘real-time’ using traditional feedback mechanisms.

As part of a wider survey on social media use amongst student nurses Price et al. (2018) explored students’ perceptions of Twitter as a learning tool. Their findings were somewhat mixed with 27.2% of respondents having little or no understanding of the purpose of Twitter in the course. This result does seem significant but does not clarify if these students attended the optional session on how to effectively use Twitter prior to attending classes. This could have increased their awareness of the benefits. There are more positive findings in relation to social media in general with 47.1% of students agreeing that social media is ‘very beneficial’ in identifying contemporary issues in nursing. The positive impact of social media appears to be a common finding but this study also explored some of the reasons why a small but significant group of students do not engage with social media, with 57% of participants feeling that a lack of time was a significant impeding factor and 42.1% being unclear of how to ‘use social media effectively’. These statistics demonstrates the importance of providing suitable and timely training for student nurses.

**Promoting using social media safely**

The previous examples of using Twitter as a professional forum highlights the benefits and power of such social media platforms but the majority of the literature still discusses the ‘dangers’. There is limited research on teaching student nurses how to promote themselves safely and effectively. George (2011) describes a course on such a subject for health professionals, the course evaluations were very positive but with only fifteen staff taking part the findings are not generalizable. Marnocha et al.(2017) carried out a much larger study of 72 student nurses understanding of cyber-professionalism prior to and immediately after a peer led teaching session. It is difficult to interpret the benefits, as the majority of students appeared to have a good understanding of the topic prior to the session. Important to note is it was not discussed why the peer taught component of the learning was not measured and there is no real interpretation of whether this was of any benefit.

Henning et al. (2017) undertook a more robust study to determine the educational needs of students in relation to social media. This multi-national; multi-professional study involved a series of focus groups and individual interviews to explore Facebook usage and ideas for professional online conduct. It did in part confirm a preference for peer involvement, as one of the themes was to have teaching from a credible peer it could be assumed that students would prefer online teaching on social media. An unexpected theme was the students’ preference for face-to-face teaching so that they could be told the rules of conduct,. Most students then indicated a preference for a follow up with group work and some practical demonstrations, this is surprising at it could be assumed that social media use would imply a preference for some form of e-learning.

**Conclusion**

This narrative literature review found little research on the implementation of training for stude.nt nurses to assist them in safely navigating and interacting with social media Social media is predominately used by students to communicate with peers and to access course related information. It has the power to inform students in a collaborative environment, which promotes the nursing profession. The majority of studies reported that students are aware of what constitutes professional online behaviour but this has not stopped cases of inappropriate social media postings being investigated by universities and nursing regulatory bodies. This apparent contradiction may be in part due to the current body of research relying on self-reporting of any online misdemeanours. It is imperative to understand that personal and professional online personas impact on student nurses, therefore appropriate support and strategies should be in place to support student nurses.

**References**

Ahlqvist, T., Back, A., Heinonen, S. and Halonen, M. (2010) Road-mapping the societal transformation potential of social media, *Foresight,* 12(5), pp.3-26.

Barnable, A., Cunning, G. and Parcon, M. (2018) Nursing Students’ Perceptions of Confidentiality, Accountability, and E-Professionalism in Relation to Facebook, *Nurse Educator,* 43, (1), pp.28-31.

Benetoli, A., Chen, T.F. and Aslani, P. (2015) The use of social media in pharmacy practice and education, *Research in Social Administrative Pharmacy,* 11, pp.1-46.

Booth, R.G. (2015) Happiness, stress, a bit of vulgarity, and lots of discursive conversation: A pilot study examining nursing students’ tweets about nursing education posted to Twitter, *Nurse Education Today,* 35, pp.322-327.

Chretien, K.C., Goldman, E.F., Beckman, L. and Kind, T. (2010) It’s Your Own Risk: Medical Students’ Perspectives on Online Professionalism, *Academic Medicine,* 85(10), pp.568-571.

Copeland, G. and Knudson, T.K. (2016) Student nurses’ unethical behaviour, social media and year of birth, *Nursing Ethics,* 23(8), pp.910-918.

De Gagne, J.C., Choi, M., Ledbetter, L., Kang, H.S. and Clark, C.M. (2016) An Integrative Review of Cybercivility in Health Professions Education, *Nurse Educator,* 41(5), pp.239-245.Ferguson, C., DiGiacomo, M., Saliba, B., Green, J., Moorley, C., Wyllie, A. and Jackson, D. (2016) First year nursing students’ experiences of social media during the transition to university: a focus group study, *Contemporary Nurse,* 52(5), pp.625-635.

Fortune (2017) *Mark Zuckerberg Says Facebook Now Has 2 Billion Users Worldwide.* Available from: <http://fortune.com/2017/06/27/mark-zuckerberg-facebook-userbase/> [Accessed 27 November 2017].

Francis, R. (2015) *Freedom to speak up.* London: NHS

Garner, J. and O’Sullivan, H. (2010) Facebook and the professional behaviours of undergraduate medical students, *The Clinical Teacher,* 7, pp.112-115.

George, D.R. (2011) Friending Facebook? A Minicourse on the Use of Social Media by Health Professionals, *Journal of Continuing Education in the Health Professions,* 31(3), pp.216-220.

Giordano, C. and Giordano C. (2011) Health Professions Students’ Use of Social Media, *Journal of Allied Health,* 40(2), pp.78-81.

Greysen, S.R., Kind, T. and Chretien, K.C. (2010) Online professionalism and the mirror of social media, *Journal of General Internal Medicine,* 25(11), pp.1227-1229.

Henning, M.A., Hawken, S., MacDonald, J., McKimm, J., Brown, M., Moriarty, H., Gasquoine, S., Chan, K., Hilder, J. and Wilkinson, T. (2017) Exploring educational interventions to facilitate health professional students’ professionally safe online presence, *Medical Teacher,* 39(9), pp.959-966.

Jain, A., Petty, E.M., Jaber, R.M., Tackett, S., Purkiss, J., Fitzgerald, J. and White, C. (2014) What is appropriate to post on social media? Ratings from students, faculty members and the public, *Medical Education,* 48, pp.157-169.

Jones, C. and Hayter, M. (2013) Editorial: Social media use by nurses and midwives: a ‘recipe for disaster’ or a ‘force for good’? *Journal of Clinical Nursing,* 22, pp.1495-1496Jones, K., Warren, A. and Davies, A. (2015) *Mind the Gap. Exploring the needs of early career nurses and midwives in the workplace.* Birmingham: Health Education England.

Maloney, S., Moss, A. and Ilic, D. (2014) Social media in health professional education: a student perspective on user levels and prospective applications, *Advances in Health Science Education,* 19, pp.687-697.

Marnocha, S., Marnocha, M.R. and Pillow, T. (2015) Unprofessional Content Posted Online Among Nursing Students, *Nurse Educator,* 40(3), pp.119-123.

Marnocha, S., Marnocha, M., Cleveland, R., Lambie, C., Limberg, C.Y. and Wnuk, J. (2017) A Peer-Delivered Educational Intervention to Improve Nursing Student Cyberprofessionalism, *Nurse Educator,* 42(5), pp.245-249.

Mather, C., Cummings, E. and Nichols, L. (2016) Social Media Training for Professional Development in Undergraduate Nurses, *Nursing Informatics 201,* pp.344-348. DOI: 10.3233/978-1-61499-658-3-344.

Monks, C.P., Robinson, S. and Worlidge, P. (2012) The emergence of cyberbullying: A survey of primary school pupils’ perceptions and experiences, *School Psychology International,* 33(5), pp.477-481.

NatCen Social Research. (2016) *Moral issues – British Social Attitudes.* Available from: [www.bsa.natcen.ac.uk/media/39147/bsa34\_moral\_issues\_final.pdf](http://www.bsa.natcen.ac.uk/media/39147/bsa34_moral_issues_final.pdf) [Accessed 22 November 2017].

Nyangeni, T., du Rand, S. and van Rooyen, D. (2015) Perceptions of nursing students regarding responsible use of social media in the Eastern Cape, *Curationis,* 38, (2), pp.1-9.

Osman, A., Wardle, A. and Caesar, R. (2012) Online professionalism and Facebook – Falling through the generation gap, *Medical Teacher,* 34 pp.549-556.

Price, A.M., Devis, K., LeMoine, G., Crouch, S., South, N. and Hossain, R. (2018) First year nursing students use of social media within education: Results of a survey, *Nurse Education Today,* 61, pp.70-76.

Sinclair, W., McLoughlin, M. and Warne, T. (2015) To Twitter to Woo: Harnessing the power of social media (SoMe) in nurse education to enhance the student’s experience, *Nurse Education in Practice,* 15, pp.507-511.

Stephens, T.M. and Gunther, M.E. (2016) Twitter, Millennials and Nursing Education Research, *Nursing Education Perspectives,* 37(1), pp.23-27.

Usher, K., Woods, C., Casella, E., Glass, N., Wilson, R., Mayner, L., Jackson, D., Duffy, E., Mather, C., Cummings, E. and Irwin, P. (2014) Australian health professions student use of social media, *Collegian,* 21, pp.95-101.

Walrave, M. and Heirman, W. (2011) Cyberbullying: Youngsters’ experiences and parental perception, *Children & Society,* pp.59-72.

Westrick, S.J. (2016) Nursing Students’ Use of Electronic and Social Media: Law, Ethics, and E-Professionalism, *Nursing Education Perspectives,* 37(1), pp.16-22.

Wilson, R., Ranse, J., Cashin, A. and McNamara, P, (2014) Nurses and Twitter: the good, the bad, and the reluctant, *Collegian,* 21, pp.111-119.