Background:

Most students are adept in using technology and have developed skills and confidence utilising SoMe for professional purposes. SoMe is used by both registered nurses and student nurses.

Purpose:

The purpose of this study was to investigate the professional use of SoMe by student nurses in Trinidad and Tobago, Jamaica and the UK to guide, support and develop implementation of effective and appropriate use of SoMe for professional development.

Methods:

An online cross-sectional survey was completed by student nurses from the three countries. Data were analysed using descriptive statistics.

Results:

The main reason for using social media among Caribbean participants was to watch videos or short clips whereas in UK it was downloading articles. Over 75% participants of all ages believed that social media was likely to help their career. There is no social media guidance for student nurses in Trinidad and Tobago and Jamaica.

Conclusion:

Our study demonstrated that social media is embedded in student nurses' professional development throughout their education, with some variation in their use by country. Despite

the fundamental place that social media plays in student nurses' professional development, there is no national or international guidance on how student nurses *should* use social media for professional development.

Keywords:

Student nurses; Social media; Professional development; Caribbean; Social media guidance

1. Introduction

Globally, nursing has evolved into a profession, from bedside aide to clinician, practising autonomously, such as running their own clinics and prescribing medication (Hill, 2017). Nurse education has followed this development from no recognised qualification to certificate, diploma and now degree, masters and doctoral level. As the profession has developed, learning has become more academic, leading to evidence-based practice that is essential for patient care and safety (Mackey and Bassendowski, 2017). Nursing development has been significantly influenced by society and new technologies (Barnard, 2016). One of the most predominant expansions is the use social media (SoMe). SoMe are networks where people create, sustain and develop social links. They facilitate communication and interaction between users. Some well-known SoMe platforms are Facebook®, WhatsApp®, Instagram® and Twitter®. Globally, 4.14bn people are active on social media (Clement, 2020) using one or more SoMe platform (McCay-Peet and Quan-Haase, 2017). The SoME phenomenon is also present in the nursing community and especially student nurses of the millennial generation (Oducado, 2019b). Beside the personal use of SoMe, Moorley and Chinn (2019) have reported that SoMe has a role in professional development.

2. Background

Most students are adept in using technology and have developed skills and confidence utilising SoMe for professional purposes (Lopez and Cleary, 2018). SoMe is used by both registered nurses and nursing students (Wahila et al. 2019).

Usher et al. (2014) surveyed 1st and final year Australian student nurses. Facebook usage was above 90% across their sample, which was predominantly female. As age increased in both year

groups the use of Facebook® was lower. Younger students reported using Twitter®. Final year students (72%) used LinkedIn® for networking opportunities. Price et al. (2018), studied 1st year English nursing students' use of SoMe in an educational context. Overall, their participants represented the younger generation and were below 30yrs (57%) of age. They reported that most students utilised SoMe prior to studying pre-registration nursing and that the dominant rationale for use was for social activities with less than one fifth using it for educational purposes. Regarding SoMe platforms, most used Facebook® (77.7%). Twitter® (12.4%) and Instagram® (33.9%) were less used. Participants viewed SoMe as beneficial and as contributing to increased confidence. Studies in Turkey by Terzi, Bulut and Kaya (2019) and in the Philippines by Oducado et al. (2019) both reported social media use in predominantly female samples. Terzi, Bulut and Kaya (2019) found that Instagram® was the most used platform. Both studies reported positive use of SoMe, however, evidence of negative impacts exist, for example cyber incivility and trolling (De Gange et al. 2019; Moorley and Chinn 2014). Daigle (2020), also Ramage and Moorley (2019) stress the challenges that students face in differentiating personal and professional identities.

We define professional development pertaining to SoMe as any activities that initiate, contribute or reinforce any learning or development related to nursing. Although there is some evidence on how student nurses use SoMe for professional purposes, there is less evidence on demographic profiling of student nurses and SoMe usage. What exists is the various attempts by nurse educators to report SoMe implementation as an educational tool. Although SoMe use is expanding in low and middle-income countries (Hagg, Dahinten and Currie, 2018), as mobile devices and internet services become more affordable, little evidence exists on social media in

these countries. Particularly in nursing, where no evidence exists on the use of SoMe among student nurses in the Caribbean, or in comparison to any western country. The purpose of this study was to investigate professional use of SoMe by student nurses to guide, support and develop implementation of effective and appropriate use of SoMe for professional development.

3. Methods

3.1. Aim

Recognising and understanding the impact of SoMe on student nurses' professional development is important, including how they can be used for professional purposes. The study aimed to identify how student nurses use SoMe for professional development in Trinidad and Tobago, Jamaica and the UK.

The study's objectives were:

- Identify how student nurses in each country use social media professionally.
- Identify how each generation of student nurses use social media professionally.
- Identify how student nurses use social media professionally in relation to their year of education.

3.2. Population

Participants were student nurses from three countries (Jamaica, Trinidad and Tobago and the UK). These three countries were chosen because of the similarities of the nurse education programme and already established links which facilitated the investigation of Caribbean student nurses use of SoMe. Table 1 shows the inclusion and exclusion criteria for the study.

Inclusion and exclusion criteria were applied (table 1).

(insert table 1 here)

Table 1 inclusion and exclusion criteria

The possible pool of participants was 63573 (63000 in the UK, 233 in Trinidad and Tobago and 340 in Jamaica). In UK the survey was distributed nationally, whereas in the Caribbean one university from Trinidad and Tobago and one university from Jamaica were involved. The sample size target was 398 for the UK, 147 for Trinidad and Tobago and 183 for Jamaica. Both the UK and Trinidad and Tobago met the sample size targets, apart from Jamaica. The target sample sizes were calculated with Yamane's formula using ± 5% level of precision and population size previously stated. Jamaica experienced recruitment difficulties and did not meet the sample size target of 183 participants. In Jamaica and Trinidad and Tobago nursing degree run over 4 years, while in UK the programme is 3 years.

3.3. Recruitment and data collection

An online cross-sectional survey of SoMe usage for professional development in three countries (Jamaica, Trinidad and Tobago and the UK) was distributed. Data collection ran from March to September 2019 across all sites. To ensure recruitment consistency and ethical requirements across countries a flowchart was created to organise and structure the research. First, creation of recruitment folders per country including the participant information sheet (PIS) stating the ethical approval and contacts, a survey link hosted on onlinesurveys.ac.uk and file, virtual learning environment (VLE) invitation and a thank you email. Second, recruitment folders were sent to the research lead in each country for review and queries. The third step outlined ethical practice regarding participant recruitment via each University. The VLE invitation with the survey link and PIS was uploaded onto the University VLE (Moodle®) to advertise the study.

Students' participation was voluntary. Where possible the study was advertised face to face to support the VLE invitation. The study was also advertised on Twitter® UK and supported by @WeNurses, @WeStudentNurses and by an active student nurses' community in Scotland. The fourth step during the data collection involved response monitoring, VLE weekly re-advertising, daily for the first week on SoMe, then weekly. Step 4 was planned for 3 months, however due to recruitment difficulties in the Caribbean sites the deadline was extended to 6 months, after which data collection closed (step 5).

3.4. Instruments

The survey included 31 items, with 6 questions on demographics and 24 on SoMe use and learning utilising a 5 point Likert scale and yes or no responses. The survey was developed by the authors based on the literature review and the authors' knowledge of using and researching social media for educational purposes. The survey was used for the first time in this study. A pilot was undertaken using students and academic staff from London South Bank University (England) and University of the West Indies (Trinidad and Tobago). They were asked to complete the survey and provide feedback to ensure the tool's meaningfulness, understanding, appropriateness and cultural congruence to confirm content validity. No changes were required.

3.5. Ethical considerations

Ethical approval was gained from London South Bank University (England), University of the West Indies (Trinidad and Tobago) and University of Technology (Jamaica). Participants were able to contact the country's lead researcher for any clarification needed. The research project was explained in the PIS communicated to participants. Consent was requested in the first question

of the survey. Any participants not consenting to participate in the study were excluded. At every stage, students were reminded that participation was voluntary and not affecting their studies, responses were anonymous. The data were protected on a University password locked server ensuring General Data Protection Regulation and local ethical compliance.

3.6. Data analysis

To meet the aims of this cross-sectional survey, to understand how student nurses in 3 countries used social media for professional development, we used descriptive statistics. Analysis included: frequencies, means, standard deviations, percentages and crosstabulations using SPSS® statistics software version 25.0. A codebook was created to facilitate data management and cleaning. The data analysis was checked by two of the researchers to support validity, reliability and rigour.

4. Results

The total number of responses was 1077. From the 1077 participants, 10 did not consent to participate, and were withdrawn, reducing the sample size to 1067. Although we opened the study to Nursing Associates in the UK, to focus on pre-registration student nurses, we excluded N=17 giving a final sample of 1050. Variables were identified, named, and a codebook created. Data cleaning involved checking each variable against the codebook. Three anomalies were identified for self-reported age, therefore these observations were excluded from any analysis on age. The number of responses for the UK, Trinidad and Tobago and Jamaica was respectively N=832, N=158 and N=60. The response rate was 1.3% for the UK, 68% for Trinidad and Tobago,

18% for Jamaica. The high response rates may be because the Caribbean nations was more intensely focussed at smaller number of institutions. There is always the possibility that participants did not want to engage the survey.

4.1. Demography: Age, gender and ethnicity

Demographic data are reported in table 2. Mean age and standard deviation were in Jamaica 23yrs (5.64), Trinidad and Tobago, 23yrs (6.00) and the UK, 29yrs (9.01). Most of the participants from all countries were female (90% (N=6=942)), with the UK reporting 0.4% (N=3) participants with non-binary gender status.

There were 12 ethnic groups choices. Jamaican participants comprised 4 ethnicities, Trinidad and Tobago included 6 ethnicities and UK participants comprised 11 ethnicities. (Table 2)

(insert Table 2 here)

(Table 2: Demographic data)

4.2. Social media platforms and usage by country

The survey provided 6 SoMe platform choices. In Jamaica and Trinidad and Tobago the most used platforms were respectively WhatsApp® (100% (N=60), 97.5% (N=154)) followed by YouTube® (93.3% (N=56), 88.6% (N=140)) and then Instagram® (81.7% (N=49), 79.1% (N=125)). The least used platforms for both countries were respectively Twitter® (21.7% (N=13), 19% (N=30)) and LinkedIn® (13.3% (N=8), 7.6% (N=12)). While the platforms used by Caribbean students were similar, there was a different pattern of usage reported by the UK students. The most used platforms in the UK, were Facebook® (88.7% (N=738)) followed by WhatsApp® (86.8% (N=722)),

Instagram® (76.1% (N=633)), Twitter® (60.1% (N=500) and YouTube® (59.7% (N=497)). The least used was LinkedIn® (11.9% (N=99)). .

Participants were asked if they used SoMe professionally for watching video and short clips, downloading articles, participating in online chat, sharing information with other healthcare professionals or completing a SoMe learning task. The most common responses for Jamaica and Trinidad and Tobago were videos and short clips followed by downloading articles and sharing information, online chat and learning tasks. In the UK, the most common use was downloading articles, followed by videos and short clips, online chat, sharing information and learning tasks. For all countries, the main professional use of SoMe was watching videos and downloading articles, both represented two-thirds of SoMe professional use (Table 3).

Self-reported awareness of the Nursing Councils' SoMe guidance was 15% in Jamaica (N=9) and 22.8% in Trinidad and Tobago (N=36). In the UK, 86.1% (N=716) were aware of guidelines. The Nursing Council is the regulator of the profession and for example it is the equivalent of the National Council of State Boards of Nursing (NCSBN) in United States, the Nursing and Midwifery Board in Australia and the Nursing and Midwifery Council in the UK.

Most Jamaican participants reported messaging while on duty, while the majority of Trinidad and Tobago and UK participants did not report messaging while on duty. Participants form all countries reported using SoMe for professional networking, with the highest proportion in Jamaica followed by Trinidad and Tobago, and the UK. Most participants reported that it was likely SoMe networking can positively influence their career with a higher proportion reporting this likelihood in both Caribbean countries compared to the UK. A higher proportion of

participants from Jamaica and Trinidad and Tobago reported that SoMe could impact their career compared to participating UK student nurses. The UK participants reported being more likely to connect to hospital internet, whereas fewer participants from Jamaica and Trinidad and Tobago reported a facility to connect to hospital internet. In Jamaica 56.7% (N=34), Trinidad and Tobago 52.5% (N=83) and UK 44.5% (N=370) reported that hospitals do not allow SoMe and internet use. Smart phones were the most common mode of accessing SoMe followed by laptops and desktop computers in all three countries. Most participants had multiple device access to SoMe (Table 3).

(insert table 3 here)

(Table 3: SoMe usage by country)

4.3. Generational use of SoMe

Participants' age was recoded into four generational groups (Strauss and Howe, 1991). (table 4)

(insert table 4 here)

(Table 4: Generations)

The use of these generational groups facilitated understanding the impact that age could have on the professional use of SoMe. BII was least represented in the sample population followed by GenX, GenY and GenZ. The UK represented all four generations, Trinidad and Tobago had GenX, GenY and GenZ and Jamaica had two generations GenY and GenZ. Cross-tabulations showed that all generations had similar gender distributions. The only representation of non-binary gender was in GenZ. BII were 1st and 2nd year of nurse education. GenX, GenY and GenZ were represented across all years of education.

Regarding using SoMe platforms, all BII used Facebook®, YouTube®, and WhatsApp®, followed by Twitter® and Instagram®. GenX used WhatsApp® the most, followed by Facebook®, YouTube®, Twitter®, Instagram® and LinkedIn®. GenY reported using WhatsApp® the most, followed by Facebook®, Instagram®, YouTube®, Twitter® and finally LinkedIn®. For GenZ Instagram® had the highest usage, followed by WhatsApp®, Facebook®, YouTube®, Twitter® and LinkedIn (table 5).

Analysis of the purpose of SoMe usage showed most BII used SoMe for some professional purpose, (75% (N=3)) and 69.3% (N=74) of GenX for at least some professional purpose. SoMe use for some professional purpose was reported by 57.5% (N=339) of GenY and 46.7% (N=371) of GenZ. Participants were asked if they professionally used SoMe for watching video and short clips, downloading articles, participating in an online chat, sharing information and ideas or completing a SoMe learning task. All of BII downloaded articles, three quarters shared information and ideas, half watched videos and a quarter completed SoMe learning tasks. Most GenX participants downloaded articles, shared information and ideas, watched videos and participated in online chat. Around 25% completed SoMe learning tasks. Most GenY participants downloaded articles, watched videos, nearly half shared information and ideas and participated in an online chat. Over 20% completed a SoMe learning task. Finally, most of GenZ watched videos, downloaded articles, around a third participated in online chat, shared information and ideas and a quarter completed SoMe learning tasks. (Table 5)

Participants' awareness of Nursing Councils' SoMe guidance was higher in BII participants (100% (N=4)), GenX (86.7% (N=65)) and GenY (80.8% (N=344)) than GenZ (63.8% (N=346)). BII participants messaged the most while on duty (75% (N=3)), followed by GenX (48% N=36)), GenZ (46.7% (N=243)) and GenY (39.2% (N=167)). GenZ used SoMe the least for networking with 35.8%

(N=194), followed by GenY (27.9% (N=119)), GenX (24% (N=18)) and BII who were all using SoMe for networking. All generations mostly reported that SoMe could help their career. (table 5)

(insert table 5)

(Table 5: SoMe usage by Generation)

4.4. Social media usage by year of programme

The aim of this analysis was to demonstrate how social media was used professionally by participants at each year of study. Cross tabulation was used to investigate the use of SoMe, starting with platform usage. The 1st and 2nd year students' respective usage of platforms was highest for WhatsApp® (88.5% (N=293), 91.2% (N=342)), followed by Facebook® (80.7% (N=267), 85.3% (N=320)), Instagram® (77.6% (N=257), 64.9% (N=281)), YouTube® (65.0% (N=215), 70.1% (N=263)), Twitter® (47.4% (N=157), 49.9% (N=187)) and LinkedIn® (8.8% (N=29), 10.1% (N=38)). The 3rd year students' reported usage was slightly different, Facebook® (88.3% (N=256)) was the most used, then WhatsApp® (85.9% (N=249)), Instagram® (77.2% (N=224)), Twitter® (64.8% (N=188)), YouTube® (57.6% (N=167)) and LinkedIn® (15.5% (N=45)). The 4th year participants mostly reported using WhatsApp® (96.3% (N=52)) followed by YouTube® (88.9% (N=48)), Instagram® and Facebook® (83.3% (N=45)), Twitter® (20.4% (N=11)) and finally LinkedIn® (13.0% (N=7)). Around half of the 1st, 2nd and 3rd year students were using those platforms for some professional use, compared to just under three quarters of the 4th year. The main professional uses of SoMe by 1st years were watching video, downloading articles, online chat, sharing information and completing a SoMe learning task. Comparison across years identified that 1st and 4th year students used SoMe for watching videos the most, while 2nd and 3rd year students

reported downloading articles the most. 3rd and 4th year used SoMe for sharing information more, while 1st and 2nd year used online chat (table 6).

Awareness of the respective country's Nursing Council SoMe guidance was reported most by 2nd year students (80.8% (N=303)), followed by 3rd year (75.5% (N=219)), 1St year (67.1% (N=222) and 4th year students (31.5% (N=17)).

1st year students reported using social media while on duty least compared to all other years. 1st years used SoMe for professional networking the least. Approximately three quarters of all participants believed SoMe can help their career. Participants reported that most hospitals allowed internet connections (table 6). In terms of hospitals allowing SoMe use, 37% (N=20) 4th year students said hospitals never allowed use, compared to 40.7% (N=118) of 3rd years, 48.0% (N=180) 2nd years and 51.1% (N=169) 1st years. There is a possibility that those on the 4th year programme realised the benefits of SoMe hence the increase in responses.

(insert table 6 here)

(Table 6: SoMe usage by programme year)

5. Discussion

The study set out to identify how student nurses use social media for professional development in three countries. Participants from Jamaica and Trinidad and Tobago were on average younger than those from the UK. In the UK students entered nursing later than both Caribbean countries, which might be linked with cultural practices and how guidance is given in secondary schools around nursing as a career choice and the image of nursing in these countries. Late entry in nursing may also be associated with persons choosing nursing as a second career in the UK as

opposed to nursing being a primary career choice in the Caribbean. The UK sample had more males than Caribbean countries. The gender disparity was also evident in studies by Usher et al. (2014), Price et al. (2018); Terzi, Bulut and Kaya (2019) and Oducado et al. (2019) studies. Fewer male student nurses in Caribbean countries could be related to how nursing is perceived in the Caribbean pertaining to masculinity (Adeyemi-Adelanwa et al.2015; Lewis, 2011). All three countries present an ethnically diverse student population which should be considered for recruitment strategies using SoMe to encourage less represented ethnicities into nursing. These findings also support the importance of having a diverse nursing workforce.

Facebook® was the most used platform in the UK and the least used in the Caribbean. YouTube® was the most used in the Caribbean and least used in UK. These findings could reflect a difference in access to teaching and learning materials from SoMe as well as learning styles. YouTube® being video and short clips focused is more attractive to visual and kinesthetic learners. Twitter® is barely used in the Caribbean compared to the UK and this may be a reflection of the perceived level of usefulness of SoMe as a learning tool for professional development or to do with generational culture and usage of SoMe. The lower use of Twitter® in the Caribbean can also be a result of the professional nursing community activity and presence on Twitter in the Caribbean.

Comparison of generational use of SoMe platforms showed the older generation (BII) used fewer platforms than the younger generation. Examining platform usage across programme years, Facebook®, WhatsApp® or Instagram® appear to be stable. YouTube® is used less by the 3rd year students than by the 1st years, compared to Twitter® whose use increased through their academic progression. These patterns of platform use could be explained by the majority of the skills learnt

during the first and second years of nursing education and more theoretical components during the third and fourth year. Also, students may have learned how to appropriately use platforms such as Twitter® for professional purposes (Ramage and Moorley, 2019), as well as YouTube® which mainly comprises videos and short clips and is a teaching aid in skills acquisition. Twitter® on the other hand could be viewed as more theoretical knowledge, discussion, debate, article sharing that supports the theoretical components of nursing (Author, 2020) and is not used for professional purposes.

SoMe usage across years of programme showed that use of SoMe for professional purposes increases throughout the years. Jamaica and Trinidad and Tobago use SoMe for professional purposes more than the UK. A critical finding was that older generations used SoMe more for professional reasons, embracing digital life (Vogel, 2019).

In Trinidad and Tobago and Jamaica SoMe was mainly used professionally for watching video and short clips. Watching visual recordings can explain the preponderance of YouTube® use in the Caribbean countries compared to the UK where the main use of SoMe was for downloading articles. In some, universities nursing educational materials based on evidence-based practice and knowledge are embedded in social media platforms which could explain the predominance of article downloads to aid professional development (Price et al., 2018; Männistö et al., 2019; Alsayed, Bano, and Alnajjar, 2019).

In our study older participants focused more on article downloading compared to watching videos and short clips. Reasons for using Twitter® include searching for clinical resources and materials, potential employment/job opportunities, sharing and exchanging professional ideas (Kung and Oh, 2014). The increase of theoretical teaching and learning leading to improved

confidence and skills can explain this use of SoMe. In the 4th year, where the sample mainly comprised of both Caribbean countries' participants, watching videos and short clips remained the main use.

The UK sample were more aware about their Nursing Council's SoMe guidance than those in Jamaica and Trinidad and Tobago. However, some Caribbean students had knowledge of SoMe guidance. This awareness demonstrated their interest in international practices and guidance for their development as neither Caribbean countries' Nursing Council had any published guidance. At this stage of their career development students are usually exposed to the foundations for professional practice and this may account for their level of knowledge about the Nursing Councils' guidelines as they are required to examine professional practice codes.

SoMe prohibition does not support its regulation as demonstrated by Jamaican's hospitals restricting SoMe use the most and Jamaican student nurses messaging the most while on duty. This contrast between rules and usage could be compounded by the real-world context that students may be able to use their personal data packages to access SoMe and are not dependent on the organisation's access. Examining messaging during duty throughout programme years shows that 1st years message less on duty compared to 3rd and 4th years. One possible reason for this is fear of using SoMe by 1st year students with possible repercussions from their educators, or more confidence that is gained in SoMe use by the 3rd and 4th year. However, student nurses towards the end of their programme increased their use of SoMe for networking and this can be linked with the aim of finding opportunities for professional development including employment.

Student nurses in Trinidad and Tobago were more confident that SoMe can help their career than in Jamaica and the UK.

The younger generations reported that hospitals allow SoMe use while older generations said hospitals don't, which is inconsistent with their pattern of use of SoMe by age. While generations should not affect hospitals allowing the use of SoMe, this may be explained by differences in generational culture, and a lack of or different interpretation of policies, knowledge among the younger generations, or the willingness to take risks among the older generations. Regarding generational culture Vogel (2019) reports that Baby Boomers consistently trail both GenY and Z on technology adoption, however adoption rates for BII are increasing. Similar to Al-Qaysi, Mohamad-Nordin, and Al-Emran (2019), we posit that the youngest generation possess the greatest motivation and are the most enthusiastic in using up to date rather than the traditional technologies.

There was some variation in reported internet access from hospitals between countries. Caribbean countries restricted access more than the UK, which could be due to the Caribbean countries resources to provide a wide bandwidth and packages that allow unlimited data usage can be unaffordable for institutions (Ministry of Public Administration, 2011). An underlying fear from institutions of misuse of SoMe among workers, including students, combined with a lack of guidelines could explain a restricted access. In our study, the country, generation and year of programme did not influence how SoMe was accessed. Smartphones were the most common, followed by laptops and tablets. Alsayed, Bano, and Alnajjar, (2019) found the most common use

of smartphones was to access information from the worldwide web. A smartphone also allowed most of their participants to join WhatsApp® study groups. Although we did not investigate how smartphones are used it is clear that a multiplicity of uses exists.

Our analysis indicates both between- and within-country variation in SoMe use and shows the extent to which SoMe was professionally embedded. An understanding of the use of SoMe by nurse educators and clinical mentors is important to enhance student nurses' professional development and support them to use SoMe professionally. Trinidad and Tobago and Jamaican Nursing Councils should develop SoMe guidance for student nurses. To ensure safe practice, data protection, professional behaviour and patient safety, further research is needed regarding a national and international SoMe guidance to bring international consensus and uniformity in professional use of SoMe by student nurses.

6. Limitations

This study focussed on student nurses' professional use of SoMe and not the general use of SoMe or qualified nurses use of SoMe. The reliability of the researcher- developed instrument was not established prior to the study, and the instrument did not have validity testing. The instrument used is a self-assessment and therefore subjective. This study is based on descriptive statistics frequencies, means, standard deviations, percentages and crosstabulations and does not provide possible generalisation, and only provides findings related to the study sample. The survey sample was not random and therefore may not be representative of the wider student nurse populations in these countries. For this reason, it was not appropriate to test for statistically

significant differences between groups, and the descriptive presentation of results cannot be interpreted as evidence of statistically significant differences. Furthermore, where findings are presented by year of study or generation (rather than by country), these results may be more representative of the UK where the sample size was larger.

7. Implications for nursing education

This study has implications for nursing education at national and curriculum levels. The knowledge from this study enables higher education institution (HEI) and Nursing Councils/Boards to have a better understanding of student nurses use of SoMe for professional development and what guidance may be needed to maintain professionalism when using social media. More importantly, it identifies that an international consensus on social media principles for nursing is lacking and needs to be developed.

The results present important information that can be used by HEIs and nursing educators for educating and improving effective use of SoMe through embedding it into the curriculum. This is particularly important since the Covid-19 pandemic where teaching and learning have moved to a blended online and face to face approach. The findings can help to develop student nurses' professional online identity and SoMe literacy.

8. Conclusion

Profiling student nurses can provide insights into how we can better deliver learning to aid professional development using SoMe. Our data provides understanding of student nurses' professional use of SoMe, in particular those from the Caribbean while confirming and adding

new knowledge regarding the UK population. SoMe is embedded in student nurses' professional development, with some specificity in their use related to their country, generations and year of programme. This knowledge is useful to understand how we can enhance student nurses professional development. Despite the fundamental place that SoMe plays in student nurses' professional development, there is no national or international consensus on student nurses' SoMe professional use. Area of improvements are SoMe nursing council/boards guidelines for Caribbean countries and further studies on the effective integration of SoMe in nursing curriculum. Teaching student nurses how to use SoMe effectively for professional development and learning. An international academic and nursing educators' group should develop an international SoMe guideline on how to use SoMe effectively to inform their use by nursing students and nurses globally.

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10. Tables

9.1 Table 1: Inclusion / Exclusion criteria

Inclusion Criteria	Exclusion criteria
- Any type of student nurse enrolled on a pre- registration nursing programme (In England this includes Nursing Associates) - Students nurses on any year of the programme - Student Nurses from United Kingdom, Jamaica and Trinidad & Tobago	- Anyone who is not a student nurse and enrolled on a pre-registration nursing programme - Any student nurse who is not from any of the participating countries

9.2 Table 2 Demographic data

		Countries											
		Jamaica				Trinidad & Tobago				UK			
		Mean	(SD)	N	(%)	Mean	(SD)	N	(%)	Mean	(SD)	N	(%)
Mean Age		23	(5.64)			23	(6.00)			29	(9.01)		
Gender	Male			3	(5.0)			8	(5.1)			92	(12.0)
	Female			57	(95.0)			150	(94.9)			737	(88.6)
	Non-binary			0	(0.0)			0	(0.0)			3	(0.4)
	Total			60	(100.0)			158	(100.0)			832	(100.0)
Ethnicity	British White			0	(0.0)			0	(0.0)			593	(71.3)
	British Black			0	(0.0)			0	(0.0)			36	(4.3)
	British Asian			0	(0.0)			0	(0.0)			17	(2.0)
	Caribbean Black			52	(86.7)			59	(37.3)			18	(2.2)
	Caribbean Asian			0	(0.0)			8	(5.1)			1	(0.1)
	Caribbean White			0	(0.0)			3	(1.9)			0	(0.0)
	Black African			5	(8.3)			15	(9.5)			86	(10.3)
	Any Other Black			1	(1.7)			0	(0.0)			1	(0.1)
	Any Other Asian			0	(0.0)			0	(0.0)			15	(1.8)
	Any Other White			0	(0.0)			0	(0.0)			41	(4.9)
	Mixed Ethnicity			2	(3.3)			57	(36.1)			17	(2.0)
	Any Other Ethnicity			0	(0.0)			16	(10.1)			7	(0.8)
	Total			60	(100.0)			158	(100.0)			832	(100.0)

9.1 Table 3: SoMe usage by country

		Countries					
		Jamaica		Trinidad & Tobago		UK	
		N	(%)	N	(%)	N	(%)
Reason for using SoMe	Video, short clips	47	(78.3)	112	(70.9)	473	(56.9)
	Download an article or paper	37	(61.7)	98	(62.0)	530	(63.7)
	Participate in an online chat or forum	18	(30.0)	63	(39.9)	360	(43.3)
	Share information and ideas with other healthcare professionals	24	(40.0)	60	(38.0)	356	(42.8)
	Complete a social media learning task	13	(21.7)	46	(29.1)	198	(23.8)
	Total	60	(100.0)	158	(100.0)	832	(100.0)
Have you ever used your account to post or send messages while on duty (excluding your breaks)?	Never	22	(36.7)	92	(58.2)	475	(57.1)
	Rarely	17	(28.3)	31	(19.6)	189	(22.7)
	Sometimes	18	(30.0)	23	(14.6)	146	(17.5)
	Most of the Time	0	(0.0)	4	(2.5)	12	(1.4)
	Always	3	(5.0)	8	(5.1)	10	(1.2)
	Total	60	(100.0)	158	(100.0)	832	(100.0)
Have you ever used social media for professional networking?	Never	21	(35.0)	32	(20.3)	279	(33.5)
	Rarely	7	(11.7)	30	(19.0)	122	(14.7)
	Sometimes	25	(41.7)	63	(39.9)	308	(37.0)
	Most of the Time	1	(1.7)	16	(10.1)	82	(9.9)
	Always	6	(10.0)	17	(10.8)	41	(4.9)
	Total	60	(100.0)	158	(100.0)	832	(100.0)
Do you believe social media can help your career?	Extremely unlikely	3	(5.0)	3	(1.9)	68	(8.2)
	Slightly unlikely	6	(10.0)	4	(2.5)	71	(8.5)
	Slightly likely	16	(26.7)	62	(39.2)	423	(50.8)
	Extremely likely	27	(45.0)	79	(50.0)	195	(23.4)
	It cannot help my career positively or negatively	8	(13.3)	10	(6.3)	75	(9.0)
	Total	60	(100.0)	158	(100.0)	832	(100.0)
Does your hospital allow you to connect to their internet?	Never	22	(36.7)	84	(53.2)	167	(20.1)
	Rarely	7	(11.7)	24	(15.2)	49	(5.9)
	Sometimes	20	(33.3)	26	(16.5)	148	(17.8)
	Most of the Time	3	(5.0)	12	(7.6)	109	(13.1)
	Always	8	(13.3)	12	(7.6)	359	(43.1)
	Total	60	(100.0)	158	(100.0)	832	(100.0)
How do you access social media?	Smart phone	58	(96.7)	152	(96.2)	829	(99.6)
	Tablet	27	(45.0)	45	(28.5)	356	(42.8)
	Desk top computer	4	(6.7)	24	(15.2)	105	(12.6)
	Laptop computer	43	(71.7)	114	(72.2)	493	(59.3)
	Internet café	3	(5.0)	12	(7.6)	9	(1.1)

Hospital computer	0	(0.0)	1	(0.6)	15	(1.8)
University computer	4	(6.7)	20	(12.7)	90	(10.8)
Total	60	(100.0)	158	(100.0)	832	(100.0)

9.2 Table 4: Generations

Generations	Date of birth between	Age (yrs) in 2020
Boomers II (BII)	1955 – 1965	65- 55
Generation X (GenX)	1966 – 1976	54- 44
Generation Y (GenY)	1977 – 1994	43 - 26
Generation Z (GenZ)	1995 – 2015	25- 5

9.3 Table 5: SoMe usage by Generation

		Generations							
		Boomers II		Generation X		Generation Y		Generation Z	
		N	(%)	N	(%)	N	(%)	N	(%)
SoMe Platforms	Facebook	4	(100.0)	65	(86.7)	359	(84.3)	457	(84.3)
	Twitter	1	(25.0)	35	(46.7)	211	(49.5)	296	(54.6)
	Instagram	1	(25.0)	33	(44.0)	292	(68.5)	480	(88.6)
	LinkedIn	0	(0.0)	13	(17.3)	64	(15.0)	42	(7.7)
	YouTube	4	(100.0)	47	(62.7)	265	(62.2)	374	(69.0)
	WhatsApp	4	(100.0)	69	(92.0)	392	(92.0)	468	(86.3)
	Other	0	(0.0)	4	(5.3)	22	(5.2)	76	(14.0)
	Total	4	(100.0)	75	(100.0)	426	(100.0)	542	(100.0)
Reason for using SoMe	Video, short clips	2	(50.0)	44	(58.7)	246	(57.7)	339	(62.5)
	Download an article or paper	4	(100.0)	53	(70.7)	267	(62.7)	338	(62.4)
	Participate in an online chat or forum	0	(0.0)	41	(54.7)	197	(46.2)	201	(37.1)
	Share information and ideas with other healthcare professionals	3	(75.0)	45	(60.0)	203	(47.7)	187	(34.5)
	Complete a social media learning task	1	(25.0)	21	(28.0)	95	(22.3)	139	(25.6)
	Total	4	(100.0)	75	(100.0)	426	(100.0)	542	(100.0)
Do you believe social media can help your career?	Extremely unlikely	0	(0.0)	6	(8.0)	40	(9.4)	28	(5.2)
	Slightly unlikely	0	(0.0)	3	(4.0)	32	(7.5)	46	(8.5)
	Slightly likely	1	(25.0)	33	(44.0)	204	(47.9)	263	(48.5)
	Extremely likely	2	(50.0)	25	(33.3)	116	(27.2)	156	(28.8)
	It cannot help my career positively or negatively	1	(25.0)	8	(10.7)	34	(8.0)	49	(9.0)
	Total	4	(100.0)	75	(100.0)	426	(100.0)	542	(100.0)

9.4 Table 6: SoMe usage by programme year

		Years of Programme							
		1st Year		2nd Year		3rd Year		4th Year	
		N	(%)	N	(%)	N	(%)	N	(%)
Have you ever used your account to post or send messages while on duty (excluding your breaks)?	Never	234	(70.7)	210	(56.0)	133	(45.9)	12	(22.2)
	Rarely	56	(16.9)	85	(22.7)	82	(28.3)	14	(25.9)
	Sometimes	36	(10.9)	66	(17.6)	62	(21.4)	23	(42.6)
	Most of the Time	2	(0.6)	6	(1.6)	6	(2.1)	2	(3.7)
	Always	3	(0.9)	8	(2.1)	7	(2.4)	3	(5.6)
	Total	331	(100.0)	375	(100.0)	290	(100.0)	54	(100.0)
Have you ever used social media for professional networking?	Never	118	(35.6)	121	(32.3)	78	(26.9)	15	(27.8)
	Rarely	47	(14.2)	59	(15.7)	44	(15.2)	9	(16.7)
	Sometimes	121	(36.6)	139	(37.1)	113	(39.0)	23	(42.6)
	Most of the Time	26	(7.9)	36	(9.6)	33	(11.4)	4	(7.4)
	Always	19	(5.7)	20	(5.3)	22	(7.6)	3	(5.6)
	Total	331	(100.0)	375	(100.0)	290	(100.0)	54	(100.0)
Do you believe social media can help your career?	Extremely unlikely	27	(8.2)	24	(6.4)	21	(7.2)	2	(3.7)
	Slightly unlikely	27	(8.2)	23	(6.1)	25	(8.6)	6	(11.1)
	Slightly likely	150	(45.3)	190	(50.7)	142	(49.0)	19	(35.2)
	Extremely likely	97	(29.3)	101	(26.9)	83	(28.6)	20	(37.0)
	It cannot help my career positively or negatively	30	(9.1)	37	(9.9)	19	(6.6)	7	(13.0)
	Total	331	(100.0)	375	(100.0)	290	(100.0)	54	(100.0)
Does your hospital allow you to connect to their internet?	Never	96	(29.0)	101	(26.9)	58	(20.0)	18	(33.3)
	Rarely	31	(9.4)	22	(5.9)	22	(7.6)	5	(9.3)
	Sometimes	63	(19.0)	69	(18.4)	45	(15.5)	17	(31.5)
	Most of the Time	40	(12.1)	51	(13.6)	28	(9.7)	5	(9.3)
	Always	101	(30.5)	132	(35.2)	137	(47.2)	9	(16.7)
	Total	331	(100.0)	375	(100.0)	290	(100.0)	54	(100.0)