



City Research Online

City, University of London Institutional Repository

Citation: Cathala, X., Ocho, O. N., Watts, P. N. & Moorley, C. (2021). International student nurses' use of social media for learning: A cross sectional survey. *Nurse Education Today*, 107, 105160. doi: 10.1016/j.nedt.2021.105160

This is the supplemental version of the paper.

This version of the publication may differ from the final published version.

Permanent repository link: <https://city-test.eprints-hosting.org/id/eprint/27239/>

Link to published version: <https://doi.org/10.1016/j.nedt.2021.105160>

Copyright: City Research Online aims to make research outputs of City, University of London available to a wider audience. Copyright and Moral Rights remain with the author(s) and/or copyright holders. URLs from City Research Online may be freely distributed and linked to.

Reuse: Copies of full items can be used for personal research or study, educational, or not-for-profit purposes without prior permission or charge. Provided that the authors, title and full bibliographic details are credited, a hyperlink and/or URL is given for the original metadata page and the content is not changed in any way.

9. 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) - Student 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 either of the participating countries

9.2 Table 2: Demographic data

		Countries					
		Jamaica		Trinidad & Tobago		UK	
		N	(%)	N	(%)	N	(%)
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	0	(0.0)	16	(10.1)	7	(0.8)
	Ethnicity						
	Total	60	(100.0)	158	(100.0)	832	(100.0)

9.3 Table 3: Social media usage by country

			Countries					
			Jamaica		Trinidad & Tobago		UK	
			N	(%)	N	(%)	N	(%)
Reason for using social media	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 checked your social media profile during a lecture?	Never		2	(3.3)	18	(11.4)	155	(18.6)
	Rarely		7	(11.7)	39	(24.7)	175	(21.0)
	Sometimes		27	(45.0)	66	(41.8)	352	(42.3)
	Most of the Time		13	(21.7)	19	(12.0)	103	(12.4)
	Always		11	(18.3)	16	(10.1)	47	(5.6)
	Total		60	(100.0)	158	(100.0)	832	(100.0)
Have you ever used your account to post or send messages during a lecture?	Never		4	(6.7)	25	(15.8)	202	(24.3)
	Rarely		6	(10.0)	37	(23.4)	174	(20.9)
	Sometimes		29	(48.3)	68	(43.0)	340	(40.9)
	Most of the Time		10	(16.7)	16	(10.1)	83	(10.0)
	Always		11	(18.3)	12	(7.6)	33	(4.0)
	Total		60	(100.0)	158	(100.0)	832	(100.0)

			Countries					
			Jamaica		Trinidad & Tobago		UK	
			N	(%)	N	(%)	N	(%)
Have you ever used social media to help with your nursing studies?	Never		0	(0.0)	5	(3.2)	87	(10.5)
	Rarely		5	(8.3)	6	(3.8)	91	(10.9)
	Sometimes		17	(28.3)	55	(34.8)	432	(51.9)
	Most of the Time		16	(26.7)	41	(25.9)	155	(18.6)
	Always		22	(36.7)	51	(32.3)	67	(8.1)
	Total		60	(100.0)	158	(100.0)	832	(100.0)
Have you ever used social media to help in a classroom activity?	Never		9	(15.0)	19	(53.2)	203	(24.4)
	Rarely		5	(8.3)	31	(19.6)	144	(17.3)
	Sometimes		32	(53.3)	73	(46.2)	396	(47.6)
	Most of the Time		7	(11.7)	15	(9.5)	58	(7.0)
	Always		7	(11.7)	20	(12.7)	31	(3.7)
	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)

9.4 Table 4: Kruskal Wallis and Post hoc test per country

		Countries					
		Jamaica	Trinidad and Tobago	United Kingdom (UK)	UK – Trinidad and Tobago	UK – Jamaica	Trinidad and Tobago – Jamaica
In Lecture	N / Mean rank	60 / 698	158 /551	832 / 508	42.9	189.4	146.5
	Std. Error				25.1	38.6	43.8
	Std. Test Statistic (Z score)				1.7	4.9	3.3
	p value		<0.001*		0.26	<0.001*	<0.001*
Message in lecture	N / Mean rank	60 / 708	158 /558	832 / 506	51.7	202.1	150.3
	Std. Error				25.1	68.6	43.8
	Std. Test Statistic (Z score)				2.1	5.2	3.4
	p value		<0.001*		0.117	<0.001*	0.002*
Studies	N / Mean rank	60 / 713	158 /688	832 / 481	206.4	231.3	24.9
	Std. Error				24.6	38.0	43.1
	Std. Test Statistic (Z score)				8.4	6.09	0.6
	p value		<0.001*		<0.001*	<0.001*	1.000
In classroom	N / Mean rank	60 / 628	158 /603	832 / 503	99.1	124.1	24.9
	Std. Error				24.6	38.0	43.0
	Std. Test Statistic (Z score)				4.0	3.3	0.5
	Adj. Sig. (p value)		<0.001*		<0.001*	0.003*	1.000

*significance levels p<0.05

9.5 Table 5: 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- 05

9.6 Table 6: Generation in the sample

		Countries					
		Jamaica		Trinidad & Tobago		UK	
		N	(%)	N	(%)	N	(%)
Age by generation	Boomers II	0	(0.0)	0	(0.0)	4	(0.5)
	Generation X	0	(0.0)	3	(1.9)	72	(8.7)
	Generation Y	10	(16.9)	34	(21.5)	382	(46.0)
	Generation Z	49	(83.1)	121	(76.6)	372	(44.8)
	Total	59	(100.0)	158	(100.0)	830	(100.0)

9.7 Table 7: Social media usage by Generation

		Generations							
		Boomers II		Generation X		Generation Y		Generation Z	
		N	(%)	N	(%)	N	(%)	N	(%)
Have you ever used your account to post or send messages during a lecture?	Never	3	(75.0)	35	(46.7)	125	(29.3)	67	(12.4)
	Rarely	1	(25.0)	21	(28.0)	96	(22.5)	99	(18.3)
	Sometimes	0	(0.0)	18	(24.0)	176	(41.3)	243	(44.8)
	Most of the Time	0	(0.0)	1	(1.3)	22	(5.2)	86	(15.9)
	Always	0	(0.0)	0	(0.0)	7	(1.6)	47	(8.7)
Total		4	(100.0)	75	(100.0)	426	(100.0)	542	(100.0)
Have you ever used social media to help with your nursing studies?	Never	1	(25.0)	6	(8.0)	45	(10.6)	40	(7.4)
	Rarely	1	(25.0)	7	(9.3)	44	(10.3)	50	(9.3)
	Sometimes	0	(0.0)	34	(45.3)	226	(53.1)	243	(44.8)
	Most of the Time	1	(25.0)	19	(25.3)	77	(18.1)	115	(21.2)
	Always	1	(25.0)	9	(12.0)	34	(8.0)	94	(17.3)
Total		4	(100.0)	75	(100.0)	426	(100.0)	542	(100.0)
Have you ever used social media to help in a classroom activity?	Never	1	(25.0)	26	(34.7)	96	(22.5)	107	(19.7)
	Rarely	0	(0.0)	10	(13.3)	76	(17.8)	94	(17.3)
	Sometimes	1	(25.0)	30	(10.0)	209	(49.1)	260	(48.0)
	Most of the Time	1	(25.0)	6	(8.0)	25	(5.9)	48	(8.9)
	Always	1	(25.0)	3	(4.0)	20	(4.7)	33	(6.1)
Total		4	(100.0)	75	(100.0)	426	(100.0)	542	(100.0)
How do you access social media?	Smart phone	4	(100.0)	75	(100.0)	423	(99.3)	534	(98.5)
	Tablet	4	(100.0)	38	(50.7)	187	(43.9)	197	(36.3)
	Desk top computer	0	(0.0)	23	(30.7)	62	(14.6)	47	(8.7)
	Laptop computer	3	(75.0)	47	(62.7)	245	(57.5)	352	(64.9)
	Internet café	0	(0.0)	1	(1.3)	7	(1.6)	15	(2.8)
	Hospital computer	0	(0.0)	3	(4.0)	9	(2.1)	4	(0.7)
	University computer	1	(25.0)	15	(20.0)	55	(12.9)	43	(7.9)
Total		4	(100.0)	75	(100.0)	426	(100.0)	542	(100.0)

9.8 Table 8: Kruskal Wallis test and Post hoc test per generation

		Generation									
		BII	GenX	GenY	GenZ	GenX- BII	GenX – GenY	GenX – GenZ	BII – GenZ	BII – GenZ	GenY – GenZ
In Lecture	N / Mean rank	4/ 353	75 / 324	426 / 450	542 / 512						
	Std. Error					147.8	36.1	35.5	144.6	144.5	18.6
	Std. Test Statistic (Z score)					-0.2	3.5	8.1	0.7	1.8	8.7
	p value		<0.001*			1.000	0.003*	<0.001*	1.000	0.440	<0.001*
Message in lecture	N / Mean rank	4 / 171	75 / 321	426 / 451	542 / 612						
	Std. Error					147.7	144.6	144.5	36.0	35.5	18.6
	Std. Test Statistic (Z score)					1.0	1.9	3.0	3.6	8.2	8.7
	p value		<0.001*			1.000	0.321	0.014*	0.002*	<0.001*	<0.001*
Studies	N / Mean rank	4 / 493	75 / 540	426 / 480	542 / 557						
	Std. Error					142.3	35.5	18.3	145.3	142.1	34.8
	Std. Test Statistic (Z score)					-0.1	-1.7	4.2	0.3	0.4	0.5
	p value		<0.001*			1.000	0.525	<0.001*	1.000	1.000	1.000
In classroom	N / Mean rank	4 / NA	75 / NA	426 / NA	542 / NA						
	p value		0.053			No post hoc test Kruskal Wallis test not significant					

*significance levels p<0.05

9.9 Table 9: Social media usage by year of education

			Years of education							
			1 st Year		2 nd Year		3 rd Year		4 th Year	
			N	(%)	N	(%)	N	(%)	N	(%)
Country	Jamaica		13	(3.9)	12	(3.2)	16	(5.5)	19	(35.2)
	Trinidad and Tobago		75	(22.7)	40	(10.7)	18	(6.2)	25	(46.3)
	UK		243	(73.4)	323	(86.1)	256	(88.3)	10	(18.5)
	Total		331	(100.0)	375	(100.0)	290	(100.0)	54	(100.0)
Have you ever checked your social media profile during a lecture?	Never		71	(21.5)	70	(18.7)	30	(10.3)	4	(7.4)
	Rarely		87	(26.3)	69	(18.4)	54	(18.6)	11	(20.4)
	Sometimes		123	(37.2)	168	(44.8)	125	(43.1)	29	(53.7)
	Most of the Time		28	(8.5)	45	(12.0)	58	(20.0)	4	(7.4)
	Always		22	(6.6)	23	(6.1)	23	(7.9)	6	(11.1)
	Total		331	(100.0)	375	(100.0)	290	(100.0)	54	(100.0)
Have you ever used your account to post or send messages during a lecture?	Never		98	(29.6)	79	(21.1)	47	(16.2)	7	(13.0)
	Rarely		76	(23.0)	86	(22.9)	46	(15.9)	9	(16.7)
	Sometimes		121	(36.6)	154	(41.1)	135	(46.6)	27	50.0)
	Most of the Time		22	(6.6)	38	(10.1)	45	(15.5)	4	(7.4)
	Always		14	(4.2)	18	(4.8)	17	(5.9)	7	(13.0)
	Total		331	(100.0)	375	(100.0)	290	(100.0)	54	(100.0)
Have you ever used social media to help with your nursing studies?	Never		41	(12.4)	36	(9.6)	15	(5.2)	0	(0.0)
	Rarely		29	(8.8)	40	(10.7)	29	(10.0)	4	(7.4)
	Sometimes		161	(48.6)	177	(47.2)	144	(49.7)	22	40.7)
	Most of the Time		55	(16.6)	84	(22.4)	62	(21.4)	11	(20.4)
	Always		45	(13.6)	38	(10.1)	40	(13.8)	17	(31.5)
	Total		331	(100.0)	375	(100.0)	290	(100.0)	54	(100.0)
Have you ever used social media to help in a classroom activity?	Never		83	(25.1)	87	(23.2)	55	(19.0)	6	(11.1)
	Rarely		66	(19.9)	62	(16.5)	44	(15.2)	8	14.8)
	Sometimes		150	(45.3)	176	(46.9)	148	(51.0)	27	(50.0)
	Most of the Time		18	(5.4)	30	(8.0)	25	(8.6)	7	(13.0)
	Always		14	(4.2)	20	(5.3)	18	(6.2)	6	(11.1)
	Total		331	(100.0)	375	(100.0)	290	(100.0)	54	(100.0)

9.10 Table 10: Kruskal Wallis test and Post hoc test per year of education

		Year of education									
		1	2	3	4	1 – 2	1 – 3	1 – 4	2 – 3	2 – 4	3 – 4
In Lecture	N / Mean rank	331 / 468	375 / 518	290 / 591	54 / 577						
	Std. Error					21.8	42.4	23.2	42.0	22.6	42.8
	Std. Test Statistic (Z score)					-2.3	-2.6	-5.3	-1.4	-3.3	0.332
	p value		<0.001*			0.142	0.062	<0.001*	0.940	0.007*	1.000
Message in lecture	N / Mean rank	331 / 462	375 / 521	290 / 589	54 / 607						
	Std. Error					21.8	23.2	42.4	22.6	42.0	42.8
	Std. Test Statistic (Z score)					-8.7	-5.5	-3.4	-3.0	-2.1	-0.4
	p value		<0.001*			0.042*	<0.001*	0.004*	0.015*	0.235	1.000
Studies	N / Mean rank	331 / 502	375 / 510	290 / 545	54 / 665						
	Std. Error					21.4	22.8	41.7	22.2	41.3	42.1
	Std. Test Statistic (Z score)					-0.3	-1.9	-3.9	-1.6	-3.8	-2.8
	p value		<0.001*			1.000	0.351	0.001*	0.653	0.001*	0.027*
In classroom	N / Mean rank	331 / 488	375 / 521	290 / 554	54 / 628						
	Std. Error					21.4	22.8	41.6	22.2	41.3	42.0
	Std. Test Statistic (Z score)					-1.6	-2.9	-3.4	-1.5	-2.6	-1.8
	p value		0.001*			0.721	0.023*	0.005*	0.843	0.057	0.462

*significance levels $p < 0.05$