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## Perceptions of Incivility Among Students and Faculty in Entry-Level Health Professional Programs

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### Abstract

**Purpose:** Online education is growing in popularity but has the potential to result in cyber incivility leading to disruptions in the learning environment. There is little known about the differences in attitudes between students and faculty in the online learning experience regarding cyber civility. The purpose of this study was to analytically measure student and faculty perceptions and attitudes of cyber incivility. **Methods:** A convenience sample of 180 (34 faculty and 146 students) participants from a health care university were recruited. A 27-item survey was given to record the perceptions of students and faculty on issues of cyber civility. An exploratory factor analysis was completed to validate the survey tool and determine the factors that made up the survey. A Mann Whitney U test was conducted to determine significant differences between student and faculty perceptions on the survey items. **Results:** Four factors were identified of the retained 19 items after the exploratory factor analysis: attitudes, presentation, appearance, and multitasking. There was a significant difference on 10 of the remaining survey items between students and faculty. **Conclusions:** Faculty perceived unprofessional dress, multitasking, and active display of complaints in the virtual environment more uncivil and disruptive than students. The themes show the differences between students and faculty perceptions in online platforms in healthcare educational programs. These differences highlight the need for healthcare educational programs to focus on strategies that align student and faculty expectations to positively impact the dynamics of the class and enhance learning in the virtual environment.

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### Author Bio(s)

Dr. Kristen Barta is a physical therapist who has worked in a variety of clinical settings and is now an Associate Professor in a health science program. Her areas of research involves people with Parkinson's disease and understanding the learning interactions between faculty and students.

Dr. Germaine Ferreira has a background in homoeopathic medicine and physical therapy. She has worked in acute care and skilled nursing facilities. Her experience in a physical therapy program as lead to more research in the cardiac population and teaching and learning in health sciences.

Dr. Manuel (Tony) Domenech is the Program Director of a Doctor of Physical Therapy (DPT) program. Dr. Domenech is an emeritus American Board of Physical Therapy Specialties (ABPTS) certified specialist in Orthopedic Physical Therapy and a Fellow in the American Academy of Orthopedic Manual Physical Therapists.



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### **ABSTRACT**

**Purpose:** Online education is growing in popularity but has the potential to result in cyber incivility leading to disruptions in the learning environment. There is little known about the differences in attitudes between students and faculty in the online learning experience regarding cyber civility. The purpose of this study was to analytically measure student and faculty perceptions and attitudes of cyber incivility. **Methods:** A convenience sample of 180 (34 faculty and 146 students) participants from a health care university were recruited. A 27-item survey was given to record the perceptions of students and faculty on issues of cyber civility. An exploratory factor analysis was completed to validate the survey tool and determine the factors that made up the survey. A Mann Whitney U test was conducted to determine significant differences between student and faculty perceptions on the survey items. **Results:** Four factors were identified of the retained 19 items after the exploratory factor analysis: attitudes, presentation, appearance, and multitasking. There was a significant difference on 10 of the remaining survey items between students and faculty. **Conclusions:** Faculty perceived unprofessional dress, multitasking, and active display of complaints in the virtual environment more uncivil and disruptive than students. The themes show the differences between students and faculty perceptions in online platforms in healthcare educational programs. These differences highlight the need for healthcare educational programs to focus on strategies that align student and faculty expectations to positively impact the dynamics of the class and enhance learning in the virtual environment.

**Keywords:** netiquette, cyber incivility, virtual learning, virtual classroom

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## INTRODUCTION

Online education continues to grow in popularity in a wide variety of higher-level educational programs. Many programs offer some degree of online learning experiences throughout a student's didactic coursework. While online platforms can reach many students, this comes with the risk of unwanted behaviors surfacing. Marnocha et al, found that 77% of nursing schools surveyed reported unprofessional behaviors during online activity.<sup>1</sup> Addressing unprofessional conduct is important before it causes harm to the educational experience and learning process.

Cyber civility is identified as actions that are considered respectful, professional, and ethical during computer mediated interactions that include various areas of online communication.<sup>2</sup> Research has found experiences both during synchronous online courses along with asynchronous posts on social media networks, discussion boards, emails, and text messages all impact a person's educational experience.<sup>2,3</sup>

Several studies in the medical and nursing literature have examined online incivility outside and within the academic realm.<sup>4-11</sup> To the knowledge of the authors, there is no known research that directly compares the student and faculty perceptions of netiquette in the healthcare learning environment. The purpose of this study was to analytically measure student and faculty perceptions and attitudes of cyber incivility amongst physical therapist, occupational therapist, and speech language pathology (PT/OT/SLP) students and faculty in these programs. It was hypothesized that there would be a difference in attitudes between the students and faculty on factors that contribute to cyber incivility.

## Review Of Literature

For several decades, online education has been available providing an avenue for students, especially non-traditional students, to obtain a college degree. This form of technological delivery is appealing to students who would have trouble relocating for personal reasons, those wanting to save money, and those requiring a more flexible academic schedule. For professional educational programs, this platform facilitates the ability to reach a greater number of prospective students and help to meet the healthcare supply demands given the shortage of healthcare providers.<sup>12,13</sup>

With this rise in online education, new challenges have surfaced for healthcare educators. This is partly due to technological advances and its ability to compete with face-to-face learning in richness in terms of psychosocial and emotional support, along with the COVID-19 pandemic which forced higher educational institutions into embracing the virtual platform. Among these challenges is to ensure appropriate cyber civility is addressed.<sup>4,14</sup>

Unfortunately, incivility with online education is problematic.<sup>5,6</sup> Incivility is defined as any rude, deviant, or disruptive behavior that contradicts accepted norms or values held by most people.<sup>4,6,7,8</sup> The challenge is the diversity of students and faculty who may share a different set of beliefs around education, communication, and societal norms.<sup>14</sup> This may contribute to faculty and students differing in their perceptions and attitudes toward what is considered cyber incivility. Faculty and students have perceived larger occurrences of uncivil behavior during online learning experiences than when in face-to-face learning environments.<sup>2</sup> Chretien et al found during a focus group with medical students that the students disagreed on what was acceptable and unacceptable online postings and further wanted guidance on how to handle online interactions.<sup>15</sup> Lower knowledge levels of students on cyber incivility have been correlated with higher rates of acceptance of these behaviors in nursing programs.<sup>16</sup>

Programs should be concerned with cyber incivility as it causes adverse disruptions and chaos in the learning environment and may impede learning. Other consequences of cyber incivilities are psychological or physical distress of the people involved and, if left unchecked, may evolve into hostile situations within the learning environment.<sup>7-10,17,18</sup> De Gagne et al found that healthcare professional students reported that cyber incivility was a moderate (42.9%) or serious (39%) problem in the educational experience.<sup>19</sup> It is imperative to develop environments that facilitate positive learning within healthcare education programs to promote success on internships, licensure requirements, and effectiveness as future clinicians. Comprehension of faculty and student perceptions and attitudes toward cyber incivility with online education could facilitate the creation of effective prevention and intervention strategies for teaching and learning. Understanding of the faculty and student relationship during online learning needs to be explored.

## MATERIALS AND METHODS

**Subjects.** A convenience sample of faculty and students enrolled in the University of St. Augustine for Health Sciences (USAHS) were recruited for this study. This university offers programs in two formats: residential and an online program platform. Students enrolled in the residential platform have classes and labs virtually and on campus Monday through Friday. Students enrolled in the

online platform always have classes virtually while the labs are on campus on half of the weekends of the term. Healthcare professions included Doctor of Physical Therapy, Master of Occupational Therapy, Doctor of Occupational Therapy, and Master of Speech Language Pathology. Faculty and students from residential and online program platforms were invited to participate in the study.

**Design.** After receiving Institutional Review Board approval from The University of St. Augustine for Health Sciences (USAHS) an invitation for participation was sent to the faculty and students. The email included the purpose of the study and a link to access the informed consent. All participants were informed that the survey was voluntary, and all responses were anonymous. The study was a one-time survey completed through an online platform. The faculty were asked the program they taught in, years in workforce, age, and gender. The students were asked their program of enrollment, trimester enrolled in, years working prior to graduate school, age, and gender. The remainder of the questions were identical between faculty and students. There were 27 questions on a 5-point Likert scale ranging from 1=strongly agree, 2=agree, 3=neutral, 4=disagree, and 5=strongly disagree.

The survey was derived from previous research assessing and acknowledging discrepancies between student and faculty cyber civility perspectives and validated with the data collected.<sup>4,6,8</sup> To the authors' knowledge, there is not a current survey that directly assesses faculty and student perceptions of cyber civility resulting in the development of the survey used. Campbell et al reviewed various methods and identified examples of incivility in the online environment.<sup>5</sup> Hopkins et al reviewed issues rising from student incivility with nursing programs and developed standards to address the concerns.<sup>12</sup> The examples and policies from this research were incorporated into some of the survey questions. The questions focused on various short scenarios that could occur during an online teaching session. The purpose of the questions was to determine the level of incivility perceived by the participant. Each question was phrased for the participant to rate their perceived level of appropriateness. The themes of the questions involved class participation, verbal communication, nonverbal communication, ethics, distractions, and background settings. The scenarios were attempted to be worded in neutral language to not sway responses one direction or the other. The survey took approximately 15 minutes to complete. (Appendix A).

**Data Analysis.** There were 180 participants across the disciplines who completed the survey. Demographic information is shown in Table 1.

**Table 1.** Participant Demographics

	Faculty	Student
<b>Total</b>	34	146
<b>Age</b>		
20-29	0%	80%
30-39	54%	19%
40-49	23%	0.5%
50+	23%	0.5%
<b>Years in workforce</b>		
0	0%	13%
1-2	9%	36%
3-4	15%	21%
5+	76%	30%

Table 1. Data from the 27 questions were analyzed using IBM SPSS Statistics. An exploratory factor analysis, informed by eigenvalues and scree plots, was completed to validate the tool and to determine the factors that made up the survey. A factor loading of 0.40 was used to determine those items to retain in a factor. The data was ordinal, and the sample was one of convenience; therefore, the non-parametric Mann Whitney U test was used to analyze the differences between the faculty and student responses.

## RESULTS

The principal access factor analysis was completed on the 27-item questionnaire with the oblique rotation. The Kaiser-Meyer-Olkin (KMO) measure varied the sampling adequacy for the analysis, KMO = 0.852. The initial analysis to obtain eigenvalues for each factor resulted in seven factors with eigenvalues over Kaiser's criterion of 1, and together explained 59.48% of the variance. Upon evaluating the competencies of the survey, the factors had varied levels of reliability using Cronbach's  $\alpha$ . Factors 1-4 had good to high reliability, factor 1  $\alpha$  = 0.807, factor 2  $\alpha$  = 0.821, factor 3  $\alpha$  = 0.775, factor 4  $\alpha$  = 0.728. Factors 5-7 had poor reliability, factor

5  $\alpha = 0.334$ , factor 6  $\alpha = 0.108$ , factor 7  $\alpha = 0.134$ . Due to the poor reliability based on the low Cronbach's  $\alpha$ , it was determined that the questions associated with factors 5-7 needed to be omitted from the analysis. Questions 1-5, 15, 19, and 21 were removed from the data set for analysis. A second factor access analysis was conducted on the remaining 19-item questionnaire. The KMO = 0.898, which is high, indicating a tight correlation and reliable factor analysis with the remaining items. The analysis run to obtain eigenvalues resulted in only four remaining factors with eigenvalues over the Kaiser's criterion of 1. The four factors combined explained 58.94% of the variance. The scree plot clearing indicated inflections that would justify retaining the four factors. Table 2 shows the factor loading after rotation. Attitudes and presentation (factor 1 & 2) had high reliability, with Cronbach's  $\alpha = 0.807$  and 0.821, respectively. Appearance and Multitasking (factor 3 & 4) had good reliability with Cronbach's  $\alpha = 0.775$  and 0.728, respectively. Factor 1 (attitudes) included questions 14,16, 17, 20, 24, 25; factor 2 (presentation) included questions 9-13,18; factor 3 (appearance) included questions 6-8, and factor 4 (multitasking) included questions 22,23,26,27.

**Table 2.** Summary of Exploratory Factor Analysis Results for the Survey (n = 180) \*

Item	Attitudes	Presentation	Appearance	Multitasking
6	.141	.194	<b>.818</b>	.036
7	.253	.145	<b>.726</b>	.069
8	.180	.268	<b>.739</b>	.259
9	.161	<b>.626</b>	.196	.239
10	.462	<b>.606</b>	.235	.030
11	-.008	<b>.795</b>	.174	.270
12	.296	<b>.665</b>	.174	.034
13	.289	<b>.729</b>	.121	.036
14	<b>.526</b>	.319	.484	.157
16	<b>.657</b>	.273	.224	.133
17	<b>.651</b>	.223	.132	.100
18	.253	<b>.414</b>	.196	.368
20	<b>.642</b>	.319	.173	-.003
22	.460	.079	-.002	<b>.485</b>
23	.319	.198	.390	<b>.454</b>
24	<b>.567</b>	.150	.116	.288
25	<b>.691</b>	.042	.199	.137
26	.128	.077	.089	<b>.794</b>
27	.058	.200	.124	<b>.863</b>
Eigenvalues	7.248	1.515	1.255	1.181
% of variance	38.146	7.975	6.606	6.216
Cronbach's $\alpha$	.807	.821	.775	.728

Table 2. A Mann Whitney U test was conducted on each individual item of the questionnaire. The means of the students and faculty on each survey item and test statistics are shown in Table 3. Of the remaining 19 items in the survey, there was a significant difference between the student and faculty responses on 10 items.

\*Factor loadings over 0.40 appear in bold.

**Table 3.** Mean Ratings and Mann Whitney U Scores Between Students and Faculty

Item	Student Mean (SD)	Faculty Mean (SD)	Mann Whitney U Test	Z	Effect Size	p
6	3.40 (1.07)	4.21 (0.84)	3526.00	3.98	.30	<.001*
7	4.23 (0.94)	4.41 (0.78)	3732.50	1.00	.07	.316
8	3.67 (1.15)	4.38 (0.82)	3382.00	3.43	.26	.001*
9	3.84 (.79)	4.06 (0.95)	2910.50	1.68	.13	.093
10	3.55 (1.04)	3.85 (0.89)	2853.00	1.41	.11	.158
11	3.59 (0.92)	3.76 (0.92)	2691.00	.805	.06	.421
12	4.20 (0.85)	4.26 (0.75)	2546.50	.261	.02	.794
13	3.20 (1.00)	3.76 (0.82)	3269.00	3.014	.22	.003*
14	3.95 (0.92)	4.62 (0.55)	3516.50	4.05	.30	<.001*
16	4.09 (0.90)	4.85 (0.70)	3870.50	5.51	.41	<.001*
17	3.73 (1.06)	4.32 (0.84)	3263.50	2.98	.22	.003*
18	3.35 (1.34)	3.85 (1.23)	3004.00	1.96	.14	.05*
20	4.08 (0.83)	4.26 (0.71)	2748.50	1.05	.08	.294
22	3.40 (1.05)	3.50 (1.08)	2642.50	.615	.05	.538
23	2.60 (0.99)	3.00 (1.10)	2964.00	1.86	.14	.063
24	3.62 (1.15)	4.44 (0.70)	3512.00	3.924	.29	<.001*
25	4.32 (0.92)	4.65 (0.73)	3077.50	2.455	.18	.014*
26	3.66 (1.09)	4.00 (0.98)	2936.00	1.726	.13	.084
27	3.14 (1.13)	3.65 (1.07)	3134.50	2.480	.18	.013*

Table 3. Of the four factors after the exploratory factor analysis there were only three remaining from the questions showing significant differences between faculty and students during the Mann Whitney U test. The three factors were attitudes, appearance, multitasking. Attitudes emerged from students reporting that posting social media frustrations and not being visible on video during class were acceptable. The data identified differences between the groups' views around integrity within the classroom. Some actions that students perceived as acceptable could be identified as academic dishonesty within a healthcare educational program. The survey results demonstrated that unprofessional attire was perceived to be more acceptable by the students than the faculty in the virtual environment. Likewise, the students and faculty demonstrated different opinions on multitasking. On average, students reported more acceptance of multitasking during virtual classes than faculty.

\*Indicated significance between faculty and student responses,  $p = 0.05$

Effect size =  $r$

## DISCUSSION

The purpose of this study was to examine the attitudes towards cyber incivility with online education in an academic setting between students and faculty. The results support our hypothesis that there would be a difference in the viewpoints between the students and faculty on factors that contribute to cyber incivility. The main significant findings included differing perceptions on attitudes, appearance, and multitasking.

People can be passionate about their beliefs and attitudes often expressing them in various formats online. Technology has expanded the platforms where people can share thoughts which can lead to collaborations along with conflicts. Posting negative comments on social media was viewed as inappropriate by 62% of faculty yet only 49% of students. The internet has become a place where many do not feel inhibited to post their beliefs and causes regardless of relevance or appropriateness. A few adult learners continue with this trend even in the virtual learning environment, despite the lack of anonymity. Some feel that voicing their frustrations on social media creates a sense of community.<sup>11</sup> A student may post material on social media related to a frustration experienced at school. This will be followed and liked by others who support this frustration thus initiating the birth of an online community. The intent behind posting on social media may be to inform the others in the community and initiate social interaction. However, this potentially forms other new groups comprising of those who disagree with the material that was posted and those who may choose to be silent. Rules of etiquette can help avoid the conflicts that can arise and help reduce these fractions in the learning environment.<sup>20</sup> All parties in the virtual online learning experience should aim to keep the environment running smoothly and free of conflict. There is a need for students and faculty to be part of a community that is responsible and accountable in encouraging cyber civility in the virtual learning arena.<sup>9</sup> It would be prudent for a university to set clear guidelines about what would be considered appropriate or inappropriate to post on social media networks. As we train health professionals to stay



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honorable in both the face-to-face interactions and the fast-developing cyber environment, posting material which is disrespectful, offensive, and rude should be avoided.<sup>4</sup>

Unprofessional appearance was perceived to be more acceptable by the students than the faculty in the virtual environment. Eighty-seven percent of students agreed that professional behavior is essential in healthcare professions, yet only 52% disagreed with the question that dressing in any attire was appropriate during a virtual learning experience. This is a large difference from the 97% of faculty that disagreed. When comparing attire during synchronous virtual class, 15% of students felt it was acceptable to have a bath towel wrapped around their head while only 3% of faculty agreed and 38% of students agreed that wearing sleepwear was acceptable while only 3% of faculty did.

Approximately 80% of students were in the age group of 20-29 years of age while 100% of the faculty were in the age groups above 20-29. It could be that the current generation of students may not be well acquainted with conventions and norms with respect to dress code and professional appearance.<sup>5</sup> The diversity of students and faculty which do not share “the traditional academic values, norms, and communication styles” could have contributed to these findings.<sup>14</sup> It may be beneficial to have clear guidelines for students and faculty on specific attire that is considered professional and acceptable for a virtual synchronized session.

Multitasking involves attempting to complete more than one task simultaneously and can oftentimes occur during interactions with others. Communication, verbally and nonverbally during synchronous interactions, is a key ingredient for patient and practitioner relationships and is fostered when direct attention is given to all parties involved. Aspiring students should have good interpersonal skills to effectively practice as healthcare professionals.<sup>4</sup> Just as good communication is an important skill that healthcare professionals need to demonstrate and build a good rapport with patients, appropriate eye contact along with acknowledgement and direct attention is vital during in-person and virtual online environments. Students turning their cameras off and multitasking during virtual online learning is a form of distracted engagement. These behaviors set a new norm for students to continue these habits in a practice that embraces virtual platforms such as telehealth. Most students and faculty (53% and 59% respectively) did not approve of muted videos during synchronous online teaching sessions, though only 23% of students and 6% of faculty felt it was okay to multitask during a virtual synchronized learning session. The survey revealed that students were tolerable with turning cameras off or multitasking, such as cooking or driving, during a virtual learning experience. The university curriculum should promote cyber civility with guidelines on what makes for effective and distraction free engagement in the virtual learning environment. Implementing netiquette in our interactions with others embodies the caring culture of healthcare that needs to be fostered in healthcare professional students.<sup>20</sup>

The results support our hypothesis that there would be a difference in attitudes between the students and faculty on factors that contribute to cyber incivility. This study supports the issue of addressing netiquette and having didactic guidelines for students.<sup>10</sup> Establishing clear procedures along with effective and timely communication from the instructors can help discourage student incivility.<sup>7</sup> The course syllabus is a good place to start.<sup>8</sup> Instructors should clearly outline what behaviors will be considered unacceptable and state the consequences. It is important to be calm, respectful, respond promptly, and be consistent with the consequences for all students. Deterrence from cyber incivility is the objective as this can disrupt the learning environment of the cohort and reduce productivity of the faculty member. Efforts made to address cyber incivilities promptly, sends a message to all, that cyber incivilities will not be tolerated thus discouraging negative behavior.<sup>5</sup>

### **Limitations**

There were several limitations to the study. The faculty and students recruited were from various healthcare programs but ultimately from the same university. Most of the participants were also from the DPT program which does make up the largest percentage of people in the university. A more robust study would recruit students and faculty from other universities who may have different online experiences and interactions. The survey was not a validated tool used in previous literature and though the initial Cronbach's  $\alpha$  reported poor reliability in some areas, after these items were removed from the analysis the reliability of the remaining items was good. The effect sizes on the significant items were medium at best, but the data does identify initial differences between student and faculty perceptions of netiquette in a healthcare university.

### **CONCLUSION**

Despite the limitations of the study, recognizing the different philosophies students and faculty have of professionalism during virtual learning is important. Identifying strategies to align expectations and responsibilities can positively impact the dynamics of the class, improve student participation, and enhance learning. Future studies would benefit from developing qualitative studies



through focus groups and interviews to delve into the specifics of student and faculty perceptions of netiquette. Future research would be to glean a more in depth understanding of the attitudes of students and faculty in the virtual learning environment with the objective to bridge the gap in perceptions between students and faculty. Aligning the perceptions of students and faculty could facilitate improved professionalism and understanding of incivility beyond the classroom and into the clinic. Several recommendations surfaced to help understand this perspective to enhance future online learning.

#### Recommendations for Future Online Learning

- University guidelines for students and faculty on dress code and specific attire that is considered professional and acceptable for a virtual synchronized session.
- University policy on outlining what is considered appropriate or inappropriate to post on social media.
- Resources for effective communication encompassing visual cues and body language for healthcare students and future healthcare providers.
- Expectations related to virtual sessions clearly stated by the faculty in the course syllabus.
- University providing videos depicting cyber incivility that will not be tolerated.
- Clearly stating the consequences for violations of netiquette.

#### REFERENCES

1. Marnocha S, Marnocha MR, Pillow T. Unprofessional content posted online among nursing students. *Nurse Educ.* 2015;40(3):119-123. doi: 10.1097/NNE.000000000000123
2. De Gagne JC, Choi M, Ledbetter L, Kang HS, Clark CM. An integrative review of cybercivility in health professions education. *Nurse Educ.* 2016;41(5):239-245. doi: 10.1097/NNE.0000000000000264
3. De Gagne JC, Yamane SS, Conklin JL. Evidence-based strategies to create a culture of cybercivility in health professions education. *Nurse Educ Today.* 2016;45:138-141. <http://dx.doi.org/10.1016/j.nedt.2016.07.007>
4. De Gagne JC, Covington K, Conklin JL, Yamane SS, Kim SS. Learning cybercivility: A qualitative needs assessment of health professions students. *J Contin Educ Nurs.* 2018;49(9):425-431. <https://doi.org/10.3928/00220124-20180813-08>
5. Campbell LO, Jessica TJ, Lambie GW. Online academic incivility among adult learners. *Adult Learn.* 2020;31(3):109-119. doi: 10.1177/1045159520916489i
6. Clark CM, Werth L, Ahten S. Cyber-bullying and incivility in the online learning environment, part 1: Addressing faculty and student perceptions. *Nurse Educ.* 2012;37(4):150. doi: 10.1097/NNE.0b013e31825a87e5
7. Donathan LN, Hanks M, Dotson AT. Minimizing incivility in the online classroom. *Radiol Technol.* 2017;89(1):88-91.
8. Galbraith MW, Jones MS. Understanding incivility in online teaching. *J Adult Educ.* 2010;39(2):1-10.
9. Clark CM, Ahten S, Werth L. Cyber-bullying and incivility in an online learning environment, part 2: promoting student success in the virtual classroom. *Nurse Educ.* 2012;37(5):192. doi: 10.1097/NNE.0b013e318262eb2b
10. Buelens H, Totté N, Deketelaere A, Dierickx K. Electronic discussion forums in medical ethics education: the impact of didactic guidelines and netiquette. *Med Educ.* 2007;41(7):711-717. doi:10.1111/j.1365-2923.2007.02793.x
11. Conrad D. Inhibition, integrity and etiquette among online learners: the art of niceness. *Distance Educ.* 2002;23(2):197-212. <https://doi.org/10.1080/0158791022000009204>
12. Hopkins EE, Spadaro KC, Walter L, Wasco JJ, Fisher M, Sterrett SE. Incivility in the online classroom: a guide for policy development. *Nurs Forum.* 2017;52(4):306-312. doi:10.1111/nuf.12205
13. Rieck S, Crouch L. Connectiveness and civility in online learning. *Nurse Educ Pract.* 2007;7(6):425-432. doi:10.1016/j.nepr.2007.06.006
14. Gautreau C, Glaeser BC, Renold LC, et al. Video conferencing guidelines for faculty and students in graduate online courses. *J Online Learn Teach.* 2012;8(4):277.
15. Chretien CM, Goldman EF, Beckman L, Kind T. It's your own risk: medical students' perspectives on online professionalism. *Acad Med.* 2010;85:68-71. doi: 10.1097/ACM.0b013e3181ed4778
16. Kim SS, Lee JJ, De Gagne JC. Exploration of cybercivility in nursing education using cross-country comparisons. *Int J of Environ Res Public Health.* 2020;17:7209. doi:10.3390/ijerph17197209
17. Vuolo J. Student nurses' experiences of incivility and the impact on learning and emotional wellbeing. *J Nurs Educ Pract.* 2018;8:102-111.
18. Heischman RM, Nagy MS, Settler KJ. Before you send that: Comparing the outcomes of face-to-face and cyber incivility. *Psychol Manag J.* 2019;22:1-23. <https://psycnet.apa.org/doi/10.1037/mgr0000081>
19. De Gagne JC, Conklin JL, Yamane SS, Kang HS, Hyun M-S. Educating future health care professionals about cybercivility. *Nurse Educ.* 2018;43(5):256-261. doi: 10.1097/NNE.0000000000000487

20. Hammond L, Moseley K. Reeling in proper “netiquette.” *Nurs Made Incred Easy*. 2018;16(2):50-53. doi:10.1097/01.NME.0000529952.99334.e4

### Appendix A - Survey Items

Instructions: Please respond to each of the following items with your level of agreement or attitude towards netiquette/professional behavior.
Likert Scale - Strongly agree, Agree, Neutral, Disagree, Strongly disagree
<p>Question 1: In general, do people in the PT/OT/ST world act in a professional and considerate manner?</p> <p>Question 2: Professional behavior is essential in the health care professions.</p> <p>Question 3: Ethics: either you have them or you don't.</p> <p>Question 4: “Like I told you already” or “He does not know what he is talking about” are these appropriate responses during an online discussion?</p> <p>Question 5: Ignoring the contributions or not including a group member in the discussion is appropriate.</p> <p>Question 6: It is appropriate to dress in any attire during a virtual learning experience.</p> <p>Question 7: A student having a towel wrapped around their head while participating in the virtual synchronized session is appropriate.</p> <p>Question 8: A student who participates in the virtual synchronized lab session while in their sleepwear is appropriate.</p> <p>Question 9: During a virtual synchronize session a student appears nonattentive with slothful posturing and roaming eyes is appropriate.</p> <p>Question 10: Turning your video off during an official virtual meeting with your faculty is appropriate behavior.</p> <p>Question 11: It is okay to be whispering to someone in your immediate vicinity or engage in an online chat with another colleague while someone is synchronously presenting online.</p> <p>Question 12: A student texting on their phone in plain view during the virtual synchronized session is appropriate.</p> <p>Question 13: Multitasking during a virtual synchronized learning session is appropriate.</p> <p>Question 14: During a synchronized virtual learning session, a student seen cooking dinner after clicking their video on is appropriate.</p> <p>Question 15: it can be distracting when other students engage in multitasking during a virtual synchronized learning session.</p> <p>Question 16: A student who leaves their video off to conduct errands to get credit for attendance is appropriate</p> <p>Question 17: A student viewing a synchronized presentation while driving is appropriate.</p> <p>Question 18: A student posting on social media their frustration with the program by writing “I wouldn't recommend coming here to anyone” is appropriate.</p> <p>Question 19: It can be upsetting when other students gripe and post frustrations on social media.</p> <p>Question 20: A student joins class 15 minutes late is appropriate.</p> <p>Question 21: A student is 5 minutes tardy to class multiple times is appropriate.</p> <p>Question 22: In the chat box, a student who shares personal comments is appropriate.</p> <p>Question 23: A student has their pet visibly on their lap while participating in a virtual synchronize session is appropriate.</p> <p>Question 24: A student forgoes getting a lab partner for the virtual lab experiences a substitute a dog is appropriate.</p> <p>Question 25: A student who has their glass of wine in view while participating in a virtual synchronize session is appropriate.</p> <p>Question 26: A student who displays a political statement in the background during a synchronize session which is visible to everyone is okay.</p> <p>Question 27: A student who has a mural promoting a social issue in the background of their video display is okay.</p>