

2016 Full Submission

Title: Needs Assessment of Cybercivility Learning in Interprofessional Education

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Focused Question: What is the current status of health professions students' knowledge, skills, attitudes, and experience regarding the basic concepts of cyberincivility and how they perceive facets of cybercivility as they learn to develop interprofessional competencies of values and ethics, communication, roles and responsibilities, and teamwork?

Background: The way individuals communicate, learn, and network has radically changed since the emergency of the Internet. Email has become one of the most commonly used modes of communication in business and academic settings, for research, communication with peers and supervisors, and even job applications. As digital technology continues to evolve, learning with technology has become more common and inevitable in higher education. According to a recent survey of social media usage, 90% of young adults use social networking sites (SNS), and individuals with higher levels of education lead SNS adoption rates (Perrin, 2015). Educational institutions increasingly use the Internet to facilitate communication, teaching, public relations and marketing. Despite the universally recognized benefits of the Internet for the ease of communication and education, new challenges for users in cyber environments have emerged, with cyberincivility of particular concern (De Gagne, Choi, Ledbetter, Kang, & Clark, 2016).

Defined as disrespectful, insensitive, or disruptive behavior of a user in cyberspace, cyberincivility is a pervasive and rampant issue that negatively affects one's personal, professional, social, and educational well-being (De Gagne et al., 2016). Cyberincivility is a social phenomenon permeated through (a) email including texting and instant messaging, (b) SNS or social media channels (e.g., Twitter, Facebook), and (c) online learning environments (e.g., e-forums, virtual group work). Portrayed as unethical and unprofessional, cyberincivility can manifest in a number of ways: making verbal insults or rude comments; posting ambiguous or vague responses that do not add meaning to the online discussion; breaching confidentiality (Clark, Werth, & Ahten, 2012); using profanity and discriminatory language; and posting depictions of intoxication or sexually suggestive materials (Marnocha, Marnocha, & Pilliow,

2015).

According to the most recent study aiming to integrate literature on cybercivility in health professional education, strong evidence exists that health professional students may share uncivil content on social media. Students and faculty members are experiencing incivility in online environments, including in anonymous feedback to faculty from students (De Gagne et al., 2016). Compounding this issue, the consensus is that students in health professions have little understanding of what is unethical, unprofessional, or illegal regarding posting social media content (Bramstedt, Ierna, & Woodcroft-Brown, 2014; Kung, Eisenberg, & Slanetz, 2012; Lie, Trial, Schaff, Wallace, & Elliott, 2013; Walton, White, & Ross, 2015). Scholars in this field of study posit that the integration of cybercivility learning into the curriculum can enhance the student's experience by promoting safe environments (De Gagne et al., 2016). For example, this content is typically taught in existing courses, such as ethics (Bramstedt et al., 2014) or role development (Kung et al., 2012; Lie et al., 2013) using online modules, case studies, or discussion boards to increase students' professional and ethical knowledge and skills in cyberspace (Azulay Chertok, Barnes, & Gilleland, 2014; Walton et al., 2015).

Professional and civic online identities can only be formed through the use of a well-designed curriculum and a culture that intentionally fosters professional development (Benner, Sutphen, Leonard, & Day, 2010). In addition, the practice of ethical decision making in healthcare requires students and health professionals to interpret situations. The nature of the virtual environment makes it easier for students to violate academic, professional, and legal standards (Azulay et al., 2014; Bramstedt et al., 2014). Interventions to promote professionalism or to prevent cyberincivility must develop knowledge and skilled practice but also socialize students to the necessary ethical and moral frameworks (De Gagne et al., 2016). The majority of published studies describe strategies for promoting cybercivility implemented by faculty, the most prevalent strategy being implementation of a dedicated course on cybercivility (De Gagne et al., 2016). Despite this body of work and its significance, very little is known about what perceptions exist towards cyberincivility among health professions students at Duke and their knowledge, skills, attitudes, and experience concerning this social phenomenon. The need for an interprofessional cybercivility learning experience is worthy of exploration.

To our knowledge, there are no learning activities or resources available that support the development of cybercivility for Duke health professions students. In light of the growing need for health professions students to develop and enhance their interprofessional core competencies in the global, digital age, this study seeks to determine the gaps and needs specific to interprofessional education to foster cybercivility among health professions students.

Specific Aims: The goal of this study is to conduct a needs assessment to facilitate the development of interprofessional cybercivility learning modules and curriculum resources for health professions students. The specific aims are to: (A1) describe students' knowledge, skills, attitudes, and experience on cyberincivility; (A2) explore students' perspectives about cybercivility learning needs related to the interprofessional education (IPE) core competencies; (A3) develop learning materials including IPE case scenarios and a teaching plan for cyberincivility training; and (A4) conduct a feasibility study of a web-

based data collection to assess IPE cybercivility learning needs for students in the medical (MD), nursing (MSN/DNP), physician assistant (PA), and physical therapy (DPT) programs.

Methods: This needs-assessment study, which is combined with a feasibility test, will use a descriptive, cross-sectional, and mixed-methods design with a purposive sample of health professions students. Prospective participants are students enrolled in one of the graduate level programs (MD, MSN, DNP, PA, DPT), and participation is voluntary. The participant pool is 1,420 (MD=450; MSN=450; DNP=115; PA=180; DPT=225). Our purposive sample aims to include 200 participants with a proportional sampling from each of the five programs. In the spring of 2017, student listservs of each program will be used to deliver email communication seeking study participants. We will follow all university and IRB approved methods to minimize coercion in our sample population.

In the quantitative approach to Aim 1 and Aim 2, we will use a questionnaire consisting of both structured and open-ended questions. This web-based questionnaire will be designed by the study team, followed by content consultation as well as expert reviews of survey instruments. Outcomes from the online survey are: (1) learner demographics; (2) learner self-report of knowledge, attitudes, skills, and experience regarding cyberincivility; and (3) learner self-report of “needs” or “wants” to learn about cybercivility related to the IPE core competencies. To minimize the burden on respondents wherever possible, we will limit survey response time to less than 15 minutes. After completing the survey, respondents can enter a drawing for a chance to win a \$50 gift certificate as an incentive for participation. The information to enter the drawing will not be associated with their study data (Watson, n.d). Means and standard deviations (SD) will be reported for all the continuous variables such as student’s age, total score for knowledge, attitudes, skills, and experience regarding cyberincivility. Frequency and percentage will be calculated for all the categorical variables such as student’s gender and if the student needs/wants to learn about cybercivility.

To examine the learning needs in Aim 3, students’ interest in cybercivility training, potential barriers to participation, and preferred modes of course delivery will be assessed through interviews and focus groups sessions. Outcomes of this qualitative inquiry will be combined with the quantitative data from Aim 1 and Aim 2 to develop learning materials including IPE case scenarios as well as the teaching plan for cybercivility training. Semi-structured one-on-one interviews with up to 25 informants (5 from each different HP programs) are planned, and 5 focus group sessions with a maximum of 5 persons per session will be conducted. Both interviews and focus group sessions will be carried out through virtual meeting platforms (e.g., Zoom, ReadyTalk) by one of the study team members. Upon completion of the interview, participants will receive \$25 as compensation for their time. Interview recordings will be transcribed maintaining confidentiality of interview participants. Qualitative data will be analyzed through content analysis and an open coding process, which will involve the identification of common themes or emerging categories in response to questions from a semi-structured interview protocol. NVivo (Burlington, MA, USA) data analysis software will be used to facilitate data organization and management. To improve confirmability, we will consult with an external reviewer after the study to reduce potential bias or subjectivity (Creswell, 2014).

Outcomes of the feasibility test in Aim 4 are (1) survey response rate; (2) survey completion level; (3) dropout or withdrawal rate from the interview and focus group session; (4) level of engagement in the topic; and (5) acceptability of the use of virtual meetings for needs assessment. These outcome measures will be obtained throughout the study period and analyzed using descriptive statistics to summarize findings and explain why the course of study approaches are or are not recommended. The development of components such as the online survey, interview and focus group protocols, as well as the IRB submission/approval will be completed by Dec. 2016. Ongoing recruitment will occur during the first 3 months after IRB approval, and data collection for the survey, interviews, and focus group sessions will last approximately 6 months (June 2017). Quantitative data from the online survey will be securely captured, de-identified, and stored using the Qualtrics system, and qualitative data from the interviews and focus groups will also be de-identified and stored on an encrypted Duke server. Statistical analysis will begin as soon as the online survey is completed, and data input and analysis of qualitative data will occur simultaneously with data collection (Aug. 2017). We will prepare and final report and present study findings in the last two months of the funding period (Sept. - Oct. 2017).

IRB Status: Plan to submit

Challenges: The mixed methods approach challenge is that, if the two databases are compared, discrepancies may occur, which could make the final results harder to interpret. Another concern is the ability to reach the quantitative target sample number and to obtain proportionally distributed responses from the five programs. Recruiting learners to participate in interviews and/or focus groups would also call for several resources. Each collaborator is committed to serve as an ambassador and representative, encouraging his/her respective students' participation throughout the project. Funding from Duke AHEAD would allow hiring consultants and administrative staff so that the team could stay focused with disseminating the findings of the study while seeking out additional funding sources that support IPE education. We believe findings from this study could provide opportunities for additional funding sources as well as the groundwork for IPE cybercivility learning at Duke and other universities.

Budget Template:

PI Effort	Donated (20-25% of the budget for PI support would be appreciated)	
Consult costs:	Qualitative data transcription/coding/analysis consultations (\$2,000); Administrative assistant for scheduling/coordinating for interviews and focus group studies (\$450)	\$2450
Equipment:		
Supplies:	Software (conferencing)	\$200

	hosting annual subscription) Online survey raffles/gift certificates (\$50 x 20 = \$1,000); Honoraria for interview participants (\$25/pp) x 55 (25 interviewees + 30 focus group members = \$1,375)	\$2375
Travel:		
Total Requested:		\$5025

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