Blended learning to promote professional behavior during the covid-19 pandemic: A pilot study

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ABSTRACT

Background: Following the evidence concerning unprofessional behavior, a blended learning module for nursing students was developed to promote professional behavior. However, due to the Covid-19 pandemic, blended learning was modified into full online learning. This modification provided a new experience for both lecturers and students, especially during role-play videos through video conferences. This study aimed to examine educational interventions using blended learning modules to promote student perceptions of professional behaviors such as civility and professional role models in nursing education.

Methods: This study applied a pre and post-test design. This study used two questionnaires to assess respondents' perceptions, including the civility index questionnaire and the professional role model questionnaire. A total of 44 respondents at a private nursing school in Jakarta were involved in the study. As the learning modality was shifted to fully online learning, only 20 respondents finished the intervention. Subsequently, only 17 students completed the questionnaires before and after the intervention.

Results: This study indicates a significant difference in student perceptions on classmate civility (p-value 0.08) before and after the intervention.

Conclusions: Students become more aware of expected civility from their classmates and have higher expectations on civil behaviors from their peers after participating in the study. Moreover, the role-play videos produced by students are also evidence that students were able to demonstrate civility-incivility instances in nursing education. Further research is recommended by involving a more significant number of respondents and using a control group to support the generalizability of study results.

Keywords: professional, behavior, nursing, civility.
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INTRODUCTION

Professionalism is crucial in the nursing profession. Nursing is primarily involved in providing health services, especially in hospital respondents, a caring job that should demonstrate professional behavior described in nurses' code of ethics.[1] Therefore, when nurse educators, students, and nurses engage in unprofessional conduct, further attention is needed.

Ghadirian, Salsali and Cheraghi argue that professionalism in nursing is constantly changing because of the development of the nursing profession and society's values.[1] One definition from a medical perspective states that professionalism is: denotes a foundation of clinical competence, communication skills, and ethical and legal understanding, upon which the aspirations and prudent application of professionalism principles such as excellence, humanism, accountability and altruism are built.[2]

It is vital to have knowledge and skills regarding the profession's competency, communication, and ethical-legal aspects where knowledge and skills must be applied to its principles.[2] Excellence means committing to and understanding professional competence, ethical principles, values, legal boundaries, and communication skills beyond expected standards. Humanism includes respect for others, compassion, empathy, and self-integrity.[2] Meanwhile, accountability involves responsibility, self-management, and resolving personal conflicts of interest respondent requires consideration of the interests of others rather than just focusing on one's interests.[2]

Professional behavior in nursing is about Grothe coming as a person and can also be seen from behavior, skills, good judgment, and polite behavior.[3] Professional behavior can be described as personal and professional accountability. Accountability focuses on how each nurse contributes to creating a work environment that facilitates the team to achieve outcomes for patients and families.[3]

A nursing study by Akhtar-Danesh, Baumann, Kolotylo et al. described professionalism from student nurses

and lecturers in Canada using the Q-methodology.[4] The four main factors identified for professionalism are 'humanists, porters, facilitators and regulators' (p. 8). Humanists provide professional values that respect others, individual integrity and support patient safety. Portrayer means providing appropriate pictures, clothing, and expressions (e.g., not gossiping). The facilitator involves policies/ethics, beliefs and personal values, including open-mindedness, confidence, and patience. Finally, regulators demonstrate the sharing, acceptance, and adoption of standards.[4]

One example of unprofessional behavior is called incivility. Incivility is behavior that is disrespectful toward others.[5] As discussed previously regarding professional definition, incivility is not consistent with professionalism. For example, incivility relates to communication problems such as having irritating conversations, ignoring others and verbal abuse. This incident differs from the characteristics of professionals such as humanists. Incivility in the classroom includes being unprepared for class sessions, ineffective teaching methods, late for scheduled activities, deviating from the syllabus, and changing class assignments.[6] Those behavior are also against the principles of professionalism.

Many previous studies have explored incivility, prevention and addressing it.[5,7,8] Several studies conducted interventions to promote civilities in nursing education, such as using the PBL (problem-based learning) method, journal clubs and educational interventions with blended learning.[8,9]

In a previous research phase I (January-July 2019), researchers have developed a blended learning module to improve civility behavior in nursing education. The module can be accessed on the university website, but there has never been a preliminary test or pilot study for the module utilization. Therefore, it is crucial to examine educational interventions using blended learning modules to improve student's perceptions of professional behavior, such as civility in nursing education. In addition, researchers have also developed a professional role

model behavior questionnaire used in this study.[10]

The urgency of this research was many incidences of incivility in nursing education from both Western and Eastern perspectives. The incidence of this incivility is an indicator of unprofessional behavior in the nursing setting professionalism starts with students involved in nursing education until they work in the clinical practice. Thus, there is a need to carry out this educational intervention to support nursing professionalism, especially in Indonesia. Moreover, nursing education about Grothe coming as a person and seeing civility behavior in the classroom because it is not included in the nursing behavior is suggested that civility in nursing can be embedded in learning courses.[11]

This study aimed to analyze the perceptions of professional behavior of nurse students before and after educational interventions using blended learning. Some objectives of this study were to identify students perception regarding 1) student civility behavior before educational interventions using blended learning, 2) student civility behavior after educational interventions using blended learning, 3) student professional role model behavior before educational interventions using blended learning, and 4) student professional role model behavior after educational interventions using blended learning.

METHODS

This research applied a pre-experimental with pre and post-test design.[12] The pre-experimental method is a one-time case study, a group comparison and a pre-post-test design.[13] This study used a pre and post-test design where intervention could be given with a pre and post-test evaluation without a cobehaviorup of less than 60-year one students.

The population in this study was 150 nursing students at a nursing school in Jakarta. This study used a purposive sampling technique, in which the respondents were selected based on specific criteria. The criteria included first-year students and voluntary involvement in the study. The respondents in this study were 44 first-year students, and these

students were already involved in learning both in class, skills laboratory, and clinical practice.

At the beginning of the study, 44 students filled out informed consent and questionnaires. However, only 39 questionnaires were complete (88.63% response rate). In the end, only 20 people (45.45% response rate) remained involved due to the Covid-19 pandemic situation, so interventions must be online while still implementing blended learning. The blended-online education in this study provided interactive online learning modules, including videos of realistic scenarios, related reading, reflective questions, and classroom role-plays. After the intervention was completed, only 17 students (38.63% response rate) consistently filled out the pre-post intervention questionnaire. This research was conducted in 14 weeks, starting from 7 August to 23 September 2020. The learning began at 3-4 PM (for 60 minutes) and used Zoom meeting technology. The following is the activity of civility sessions in this study.

The civility index questionnaire and the professional role model questionnaire were given to the students before and after their involvement in civility learning. Clark developed the civility index questionnaire with written permission from the author.[14] A backward (English - Indonesian - English) translation of the instrument was applied as the device is English. This questionnaire was also tested for validity-reliability / VR and readability to 30 students.[15] The results of the VR test on the civility index questionnaire showed that the questionnaire is valid and reliable (Cronbach Alpha 0.890). The research team developed the professional role model questionnaire in a previous study (Cronbach Alpha 0.97).[10] The results of the pre-post-test civility index before and after were tested using the Wilcoxon test because the data was not normally distributed.[12]

RESULT

This study examined before and after educational interventions by measuring the civility index and professional role models according to students' perceptions. Before the educational intervention, the students

involved in this study were 39 students. After the educational intervention, the students who remained in this study were 20 students (Table 2). Table 2 shows an increase in student perceptions about the behavior of students' civility (mean 3.73 to 4.16) and classmates (mean 3.49 to 4.0025). Besides, there was an increased range of the behavior of the students and classmates, namely the range from 1-4 to 3-5. However, the behavior of professional role models seems to have a slight increase in both the mean value (Mean 3.7 to 3.76) and the range (3-4).

Only 17 students were consistently

Table 1. The sessions of civility study.

Session	Time	Topic	Activity
1	Friday, 7 August 2020 at 03.00-04.00 PM	Aim of learning Civility-incivility definitions Civility and incivility between classmates	Explanation of the course and rubrics Interactive lecture: Skeleton Notes Zoom meeting
2	Wednesday,12 August 2020 at 03.00-04.00 PM	Civility and incivility in the classroom	Self-study
3	Friday, 14 August 2020 at 03.00-04.00 PM	Civility and incivility online Part 1	Self-study
4	Wednesday,19 August 2020 at 03.00-04.00 PM	Civility and incivility online Part 2	Case study analysis: Cyber incivility Zoom meeting
5	Friday, 21 August 2020 at 03.00-04.00 PM	Civility and incivility in Skills Laboratory	Self-study
6	Wednesday, 26 August 2020 at 03.00-04.00 PM	Civility and incivility in Hospital	Games and debriefing: Conflict resolution games Zoom meeting
7	Friday, 28 August 2020 at 03.00-04.00 PM	Compare and contrast civility and incivility between classroom, skills laboratory and Hospital	Self-study
8	Wednesday, 2 September 2020 at 03.00-04.00 PM	Effective and ineffective response on incivility incidence in classroom	Interactive Lecture: Select the best response Zoom meeting
9	Friday, 4 September 2020 at 03.00-04.00 PM	Effective and ineffective response on incivility incidence in online learning	Self-study
10	Wednesday, 9 September 2020 at 03.00-04.00 PM	Effective and ineffective response on incivility incidence in the skills laboratory	Script reviewing Zoom meeting
11	Friday, 11 September 2020 at 03.00-04.00 PM	Effective and ineffective response on incivility incidence in hospital	Self-study
12	Wednesday, 16 September 2020 at 03.00-04.00 PM	Healthy work environment: It begins with You	Role-play 1: Students in the group develop a role-playing video of civility-incivility and upload it on Youtube Zoom meeting
13	Friday, 18 September 2020 at 03.00-04.00 PM	Strategy to promote a healthy work environment	Role-play 2: Students in the group develop a role-playing video of civility-incivility and upload it on Youtube Zoom meeting
14	Wednesday, 23 September 2020 at 03.00-04.00 PM	Promoting civility in nursing education	Role-play 3: Students provide feedback on the role-playing video of other groups Zoom meeting

Table 2. Descriptive statistics of before and after educational intervention based on twenty respondents.

	Before educational intervention			After educational intervention		
	Students' civility	Classmates' civility	Professional role model	Students' civility	Classmates' civility	Professional role model
Mean	3.73	3.49	3.7	4.16	4.0025	3.76
Median	3.65	3.5	3.8	4.15	4.00	3.92
Modus	3.65	3.95	4,0	4.05	4.00	4.00
SD	0.65	0.69	0,256	0.496	0.56	0.35
Minimum	1.8	1.55	3,.4	3.15	3.15	3.00
Maximum	4.95	4.8	4.0	5.0	5.00	4.00

Table 3. Descriptive statistics of before and after educational intervention based on seventeen respondents.

	Before educational intervention			After educational intervention		
	Students civility	Classmates civility	Professional role model	Students civility	Classmates civility	Professional role model
Mean	3.82	4.13	3.7	3.93	3.77	3.72
Median	3.7	4.25	3.7	4.0	3.86	3.86
Modus	3.65	4.3	4.0	4.0	4.0	4.0
SD	0.73	0.495	0.75	0.557	0.27	0.366
Minimum	1.8	3.15	1.55	3.15	3.14	3.0
Maximum	4.95	4.8	4.8	5.0	4.0	4.0

Table 4. Wilcoxon test results of the educational intervention.

Professional Behaviour	Wilcoxon test			
	Median (pre-test)	Median (post-test)	p-value	r
Students' civility	3.7	4.0	0.813	0.057
Classmates' civility	4.25	3.86	0.008	-0.643
Professional Role Model	3.7	3.86	0.737	-0.081

Table 5. Link Youtube of role-playing video.

Link Youtube	Title
https://youtu.be/Co3wyDIyLsY	Role-play of incivility in class
https://youtu.be/Xg393pnFjSY	Role-play of online incivility
https://youtu.be/FuBpdDJ3XG0	Role-play of civility in the skills laboratory

Lecturer: VM Student 1: JS Student 2: AA Student 3: TP Student 4: ND	While learning online: A lecturer joins an online class on time and greets students. Student 1 explains the rules for online learning at the first meeting. Student 2 reminds others to turn on their video and mute the sound during the class. When the lecturer asks about learning material they could not understand, student 3 actively responds, and Student 4 asks some questions. The two-way communication in online learning is described.

Attachment
Script 1: "Civility between Students and Lecturer in a Large Online Class"

involved from the beginning of the study, specifically before and after the educational intervention. Therefore, this study conducted a bivariate test to see the differences before and after the intervention using the Wilcoxon test on the study result based on these 17 students. The following are the results of the descriptive statistical analysis based on 17 students (Table 3).

Table 3 shows student's civility index enhancement before and after the intervention (mean 3.82 to 3.93; ranges from 1.8 to 4.95 to 3.15-5). The civility index of classmates also changes but tends to decrease (mean 4.13 to 3.77; range from 3.15-4.8 to 3.14-4). However, the mean value of the professional role model behavior tends to remain (mean 3.7 to 3.77), and the minimum value tends to increase from 1.55-4.8 to 3-4. Based on the research results in table 3, the following is the Wilcoxon test analysis of the study (Table 4).

Table 4 shows the results of the Wilcoxon test, which analyzed significant differences before and after the civility education intervention. This study indicated a significant difference in classmate's civility before and after the civility education intervention (p-value 0.008, r -0.643). However, students' civility and professional role models were not significantly different (p value> 0.05). Moreover, based on the 14 sessions activities, this research produced four role-play videos developed by students and uploaded them into Youtube (Table 5). One script of the video can be seen in the attachment. Three videos' links can be seen as follows.

DISCUSSION

A previous educational interventions study using blended learning was carried out to increase the coping capacity of nursing students when dealing with bullying and aggression in clinical practice.[5] This previous study concluded that interventions using blended learning, including online, interactive modules with realistic scenarios and role-play exercises, could prepare students to face bullying and aggression in clinical practice.[6] Bullying behavior involves continuously performed behavior, and there is a different strength between the perpetrator and the victim.[6] Compared to this study, the current study aimed to promote civility because incivility is sometimes perceived as ambiguous behavior with low intensity, hurting others.[7]

This current study was also conducted using a blended-online learning educational intervention with synchronous and asynchronous methods. The synchronous process was carried out using a zoom meeting due to the Covid-19 pandemic that shifted face-to-face learning into online learning. Consequently, the sudden change affected the number of the respondents, from 44 to 20 students (54.54% attrition). However, the implementation of this research continued according to the plan by implementing 14 sessions and producing role-play videos by the students' respondents. The students were actively involved both in the learning process and during the development of the video. In addition, the students creatively produced four scripts based on the discussion with the learning facilitator. The scripts were also creatively performed and recorded into the video using zoom meeting technology uploaded on Youtube. These student's involvement in the learning could further increase students' civility awareness in nursing settings.[16]

Other intervention research supports this research that applied simulations, such as semi-virtual reality research, to increase awareness of civility-incivility behavior.[17] This study by Rose and colleagues show that students understanding of civility-incivility behavior increases and improves students' ability to recognize their behavior and others. This study used an intervention group and a control group, but with a small number of respondents (<30 respondents per group), in which it should be cautious for generalization. In addition, this semi-virtual research experienced respondents attrition (40%), whereas the respondents were not completing the survey after the intervention due to internet issues.[17]

This current study shows that there was a significant difference regarding student perceptions of classmates' civility. The student's perceptions of classmate civility were decreased from often into sometimes occurrence. It seems that students were more aware of the expected courtesy of their colleagues in nursing education. In other words, the students had higher expectations of their peers regarding civility behavior after being involved in the civility course. These findings are congruent with two previous studies that mentioned students experiencing civility and incivility in a safe environment sharing enhancement in their self-awareness of civility-incivility instances.[16,18]

In the learning process, students also faced the challenges of the internet, which sometimes disconnected. However, the students seemed to be enthusiastic about being involved in discussions and developed the role-play videos. Though there are disadvantages of learning using online technology, it is argued that e-learning has many advantages, including its flexibility, accessibility, and convenience, that aid students to have more opportunities to advance their knowledge.[19] The use of video in e-learning also provides new knowledge and skills to support clinical practice improvement.[10] Moreover, student's involvement in the learning will increase their learning outcome to succeed in education.[20]

This current study only recruited a few respondents at one nursing school. The respondent's attrition (54.54%) due to the Covid-19 pandemic also occurred in this study. On the other hand, this condition (17 students in the course) can be seen as beneficial for the students to develop their understanding, capability, and skills[18] regarding civility-incivility instances in nursing settings. Moreover, students who had to study from their homes had difficulties with internet availability. In this study, the researchers provided internet quotas to the respondents to continue civility learning.

CONCLUSION

Educational intervention research using blended learning in a nursing school during the Covid-19 pandemic is a valuable experience for students to prepare for learning in nursing. A significant change in student perceptions of classmates' behavior indicates that students are actively involved in educational interventions. In addition, the results of the role-playing video produced by students groups also prove that students are actively engaged in learning and can demonstrate civility-incivility instances. Further research is recommended to include a more significant number of respondents and use a control group to support the generalization of the research results.

ETHICS APPROVAL

This study received ethical approval (No. 012/MRIN-EC/ECL/IX/2019) from Mochtar Riady Institute for Nanotechnology/MRIN Ethics Committee.

CONFLICT OF INTEREST

The authors declare that they do not have any conflicts of interest.

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AUTHOR CONTRIBUTION

Ni Gusti Ayu Eka (NE) conceived of the presented idea. Rijanto Purbojo (RP) and NE designed the model and framework. NE analyzed the data and continued with Peggy Tahulending and carrying out the intervention. NE further contributed to the interpretation of the results. NE took the lead in writing the manuscript. All authors provided critical feedback and helped to develop the manuscript.

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