

SHORT
COMMUNICATION

Volume 14 Issue 2 2022

DOI: 10.21315/eimj2022.14.2.8

ARTICLE INFO

Received: 31-12-2021

Accepted: 23-03-2022

Online: 30-06-2022

Blended Learning Approaches in Nursing Education During the COVID-19 Pandemic: A Review

Ilankoon Mudiyansele Prasanthi Sumudrika Ilankoon¹,
Gnanaselvam Kisokanth², Sudath Shirely Pathmasiri Warnakulasuriya²

¹Department of Nursing and Midwifery, Faculty of Allied Health Sciences, University of Sri Jayewardenepura, Gangodawila, Nugegoda, SRI LANKA

²Department of Clinical Nursing, Faculty of Nursing, University of Colombo, SRI LANKA

To cite this article: Ilankoon IMPS, Kisokanth G, Warnakulasuriya SSP. Blended learning approaches in nursing education during the COVID-19 pandemic: a review. *Education in Medicine Journal*. 2022;14(2):103–109. <https://doi.org/10.21315/eimj2022.14.2.8>

To link to this article: <https://doi.org/10.21315/eimj2022.14.2.8>

ABSTRACT

Nurse academics have faced many challenges in conducting face-to-face teaching and clinical training in the COVID-19 pandemic. Compared to the past, there was increased interest and usage in online education during the COVID-19 pandemic in nursing education. This short communication highlights the important aspects that nurse academics should consider while designing nursing curricula to face future pandemics based on the experiences of the COVID-19 pandemic. This short communication includes a critical analysis of experiences from previous pandemics and the lesson learned from the present pandemic of the use of blended learning approaches in nursing education. These would be effective in considering nursing curricula reforms. Four key themes related to blended learning were identified as blended learning, blended learning in nursing education, challenges related to blended learning and strengthening of the blended learning culture. In conclusion, the pandemic has taught nurse academics to navigate nursing curricula to suit current teaching and learning demands. Reforming curricula by incorporating blended learning would be timely.

Keywords: *Blended learning, Nursing education, Pandemics, Curriculum reforms*

CORRESPONDING AUTHOR

Ilankoon Mudiyansele Prasanthi Sumudrika Ilankoon, Department of Nursing and Midwifery, Faculty of Allied Health Sciences, University of Sri Jayewardenepura, Gangodawila, Nugegoda, 10250, Sri Lanka

Email: prasanthi@sjp.ac.lk

INTRODUCTION

The COVID-19 pandemic impacts all the systems and communities around the world and created uncertainty and distress among all the people. It has challenged not only the health system but most importantly education. The COVID-19 pandemic

has created a major impact on nursing education around the world (1–2). Within the healthcare field, nurse academics are bracing for unique challenges related to their role in helping develop the next generation of care providers (3). Some of the BSc Nursing Degree programmes in developed countries had adopted distance

online learning even before the pandemic and only the students themselves were expected to complete in-person clinical placements to fulfill the degree requirements (3). However, the BSc Nursing Degree programmes in the conventional universities in Sri Lanka have usually been conducted as completely physical and face-to-face courses (4). It was a great challenge for the nurse academics in Sri Lanka to initiate distance online teaching/learning activities. This was experienced by many other countries where universities were forced to rapidly change the pedagogical approach from traditional campus-based learning to distance learning using digital tools (5–6).

Not like the other undergraduate programmes, nursing degree programmes are affected by the pandemic due to difficulty in completing the clinical component of the curriculum. Hence, this article aimed to assess the importance of considering curriculum reforms considering combining distance online education and face-to-face teaching in nursing education. This will give insight to the nurse academics to reform nursing curricula to adopt new technologies and employ the best pedagogical transition in nursing education. Then the nurse academics will be able to face any future pandemic situations and to continue teaching-learning activities without disturbing the academic structure.

MATERIALS AND METHODS

This short communication was written based on preliminary observations and a critical analysis of published literature on nursing education and COVID-19. The keywords used to search literature were blended learning, distance online education in nursing, blended learning approaches in nursing education and challenges using blended learning. The articles were searched through titles and abstracts during March to August 2021. The search was conducted in databases such as MEDLINE, EBSCOhost,

PsycInfo and Google Scholar. The search was limited to articles published in English and original research manuscripts.

RESULTS AND DISCUSSION

Four key themes related to blended learning were identified as blended learning, blended learning in nursing education, challenges related to blended learning and strengthening of the blended.

Blended Learning

Blended learning has been defined as “a combination of face-to-face traditional learning and online learning methods which suits the students by using various multimedia” (7–8). Further, it is defined as the thoughtful integration of classroom face-to-face learning experiences with online learning experiences (9). Some experts have defined a blended learning course as a course that mixes online and face-to-face teaching where there is a substantial proportion of the content delivered online but typically has a reduced number of face-to-face meetings (10). Garrison and Vaughan (11) considered blended learning as a coherent design approach that openly assesses and integrates the strengths of face-to-face and online learning to address worthwhile educational goals. Blended learning adopts various strategies depending on the educational subjects, including online learning strategies and offline assistive means that focus on group activities (12). The most significant feature of blended learning is that it requires a restructuring of class contact hours with the goals of engaging students in the learning process and the meantime, extending access to learning opportunities that may be found on the internet (11).

There are many blended learning models and one of the most influential blended learning models is the community of inquiry framework (13). It has been identified as

the ideal and heart of higher education and that is based on cognitive presence, teaching presence and social presence (13). The main concept here is that blended learning should integrate classroom face-to-face learning experiences with online learning experiences to enable communities of inquiry (13). The advantages of using blended learning are two-fold such as providing opportunities for experiential learning and developing a sense of community (14).

The requirements for blended learning include teachers being interested and competent in teaching in the online context (15). Factors that inhibit academics from teaching in the online environment include inadequate support and training, lack of time for developing online materials, fears of failure and different beliefs about the value of technology in education (15). Another challenge in blended learning is the lack of student engagement in online learning. Getting student attention, maintaining engagement and re-engaging those who drift away or fail to engage are considered as three major student engagement issues (15). It is an advantage of using blended learning approaches as students can fit their study around multiple commitments in their real lives to achieve their educational goals (16). It would be interesting to explore the possibilities of using blended learning methods in different components in nursing education considering strategies to improve student engagement, active learning and self-directed learning.

Blended Learning in Nursing Education

Blended learning is not a new learning approach for nursing education. Some of the major higher education institutions that are involved in nursing education have moved towards blended learning especially in New Zealand before the COVID-19 pandemic (17). It has been evidenced that blended learning is more effective than non-blended learning for knowledge achievement in health professions (18). As everyone has different learning styles, using a mixture of

different methods in teaching and learning can satisfy more people (12).

The COVID-19 pandemic taught nurse academics a lesson to find alternatives for in-person teaching and clinical training. Mainly problem-based learning and simulation techniques have been used in nursing education worldwide at different levels (12). As the key assumptions of blended learning design are: “thoughtful integration of face-to-face and online learning, fundamentally rethinking the course design to optimise student engagement, and restructuring and replacing traditional class contact hours” (14), it will be beneficial to revisit the nursing curricula considering which components can be conducted online and which components need face-to-face classes. During the planning phase of these blended learning approaches, it is necessary to look at the net-based tools that can be used.

Some of the tools that have been identified are net-based communication tools (e.g., text-based asynchronous discussion forums, text-based synchronous discussion forums, video and audio tools, social media), net-based information dissemination platforms (e.g., related websites, online academic journal articles, course study guides), and net-based tools for learning (e.g., online self-assessment quizzes) (14). Some of these tools are used in different levels at the present online distance learning in nursing programmes. Students’ motivation, level of social interaction between students and teachers are some identified factors for the successful implementation of these digital tools (5). Future research should be focused on the effectiveness of using these net-based tools in nursing education.

Challenges Related to Blended Learning

Exposure to a real ward setting enhances the nursing undergraduates’ communication skills, interpersonal skills, critical thinking abilities and it fosters the development of clinical competence and professionalism. It is a common challenge to improve those

skills due to the limited clinical exposure during the pandemic. Technology-based communication simulation programmes, which reflect various clinical situations have been proven effective for supplementing clinical learning (19). But the nursing degree programmes in low resource settings will not be able to use such technologies and face difficulties in achieving the objectives of the courses. Anyway, some of the aspects related to effective therapeutic communication with patients were managed to teach during interactive sessions through the ZOOM classes although it needs direct human-to-human interaction, touch and empathy (2). Hence, it is important to explore possible ways/technologies which are less expensive.

Most of the nursing programmes in Western countries are collaborated with clinical staff in mentoring nursing students in the clinical setting. Those clinical teachers/mentors can use ZOOM technologies in conducting virtual classrooms which provide undergraduates to improve caring context and support experience-based learning (1). Blended learning and other forms of web-based instruction require educators to adapt to the ever-growing list of technological opportunities. This is a challenge for the nurse academics too. The challenge for the nurse academics is not just to master new and complicated technology but instead to find more meaningful ways to engage the students (20).

Further, nursing education usually consists of simulation as a part of training in developed countries and resource-rich settings. A typical simulation session comprises face-to-face interactive learning experiences with a simulator, a mannequin, a standardised patient and learners (21). When face-to-face interactions are not feasible during pandemics, simulation can be done using video conferencing and other educational platforms. Simulation can be used to expose students to complex,

often stressful situations, allowing them to practice their communication, teamwork, problem-solving and psychomotor skills without endangering clients (22).

In some resource-high settings, this pandemic was an opportunity for adapting simulation-based education through the use of digital technologies (21). In Singapore, nursing academics have tried mixed medium delivery of 12-h face-to-face simulation-based sessions and 6-h online discussion of recorded simulation videos to develop multi-faceted nursing competencies (2). This new technique would be more effective to overcome the difficulties to train nursing undergraduates in real ward settings.

Further, this raises the importance of establishing a simulation ward set up with the university premises that can help the nursing undergraduates to practice essential clinical skills and transformed into a clinical virtual simulation in pandemic situations like COVID-19. “Clinical virtual simulation is an effective innovative technology for clinical training, in which students can interact with virtual patients in a recreation of a real environment” (1). It can use to improve nursing students’ decision-making and critical thinking, competence in performance and psychomotor skills (1). Further to facilitate clinical teaching through the blended learning approach, it is essential to diversify the strategies. Seah et al. (2) have emphasised that diversification of clinical teaching practice through the diversification of academic staff teaching roles to ease clinical teaching, and the expansion of clinical simulation laboratory classroom capacities and capabilities to facilitate small group clinical teaching in times of crisis. These innovative technologies can be incorporated into nursing education and there is a sensible need of modifying nursing pedagogy as COVID-19 could not be the last pandemic that humans would face.

Strengthening of the Blended Learning Culture

Experts believe that using new technologies in education has great impacts on educational outcomes, especially the increasingly interactive nature of technology, exemplified by available interactive tools, which creates new opportunities for students to learn by facilitating them to do a task, receive feedback on it and build new knowledge (20).

It would be advantageous to have ongoing pedagogical training on the use of technological tools to make nurse academics confident in the transition to the use of new educational technologies. Further, providing infrastructural technical support, enhancement of pedagogical capabilities and strong leadership management is important (2). It has been identified that nurse academics need to consider changing their blended learning approaches considering the following:

- a. Formulate a team to work out strategic plans to ensure that nursing undergraduates are continuing active learning.
- b. Provide opportunities to students to regulate their study, such as work with course materials and pace their participation in online discussions.
- c. Provide opportunities to communicate directly with faculty for any immediate support and guidance.
- d. Academic programmes can be modified considering more face-to-face interaction between first-year students who need additional support to motivate and active engagement in learning.
- e. Encourage active learning which encompasses students to construct knowledge, through their participation.
- f. Develops simulated training ward setups which can provide a constructive educational environment similar to a clinical setting.

CONCLUSION

A blended learning approach with both face-to-face and distance online learning using digital tools should be considered, with a focus on the components of the course that are best suited for distance learning. The subject components which need more face-to-face interactions should be followed up through in-person classes, and innovative technologies should be incorporated into the nursing pedagogy to face any future challenges.

REFERENCES

1. Chan MMK, Yu DSF, Lam VSF, Wong JYH. Online clinical training in the COVID-19 pandemic. *Clin Teach.* 2020;17(4):445–6. <https://doi.org/10.1111/tct.13218>
2. Seah B, Ang ENK, Liaw SY, Lau ST, Wang W. Curriculum changes for pre-registration nursing education in times of COVID-19: for the better or worse? *Nurse Educ Today.* 2021;98:104743. <https://doi.org/10.1016/j.nedt.2020.104743>
3. Dewart G, Corcoran L, Thirsk L, Petrovic K. Nursing education in a pandemic: academic challenges in response to COVID-19. *Nurse Educ Today.* 2020;92:104471. <https://doi.org/10.1016/j.nedt.2020.104471>
4. Ilankoon IMPS, Kisokanth G, Warnakulasuriya SSP. COVID-19: impact on undergraduate nursing education in Sri Lanka. *J Public Health Res.* 2020;7;9(Suppl 1):1916. <https://doi.org/10.4081/jphr.2020.1916>

5. Langegård U, Kiani K, Nielsen SJ, Svensson PA. Nursing students' experiences of a pedagogical transition from campus learning to distance learning using digital tools. *BMC Nursing*. 2021;20(1):1–10. <https://doi.org/10.1186/s12912-021-00542-1>
6. Bradley CS, Johnson BK, Dreifuert KT. Debriefing: a place for enthusiastic teaching and learning at a distance. *Clin Simul Nurs*. 2020;49:16–8. <https://doi.org/10.1016/j.ecns.2020.04.001>
7. Dziuban C, Graham CR, Moskal PD, Norberg A, Sicilia N. Blended learning: the new normal and emerging technologies. *Int J Educ Technol High Educ*. 2018;15(1):1–16. <https://doi.org/10.1186/s41239-017-0087-5>
8. Wright BM. Blended learning: student perception of face-to-face and online EFL lessons. *Indonesian Journal of Applied Linguistics*. 2017;7(1):64. <https://doi.org/10.17509/ijal.v7i1.6859>
9. Garrison DR, Kanuka H. Blended learning: uncovering its transformative potential in higher education. *Internet High Educ*. 2004;7:95–105. <https://doi.org/10.1016/j.iheduc.2004.02.001>
10. Hakesley-Brown R. Class differences. *Nursing Standard*. 2002;16(18):21. <https://doi.org/10.7748/ns.16.18.21.s38>
11. Garrison DR, Vaughan ND. Blended learning in higher education: framework, principles, and guidelines. San Francisco: Jossey-Bass; 2008. <https://doi.org/10.1002/9781118269558>
12. Jang HJ, Hong SY. Effect of blended learning in nursing education. *International Journal of Multimedia and Ubiquitous Engineering*. 2016;11(5):297–304. <https://doi.org/10.14257/ijmue.2016.11.5.27>
13. Hrastinski S. What do we mean by blended learning? *TechTrends*. 2019;63(5):564–9. <https://doi.org/10.1007/s11528-019-00375-5>
14. Kanuka H, Rourke L. Using blended learning strategies to address teaching development needs: how does Canada compare? *Canadian Journal of Higher Education*. 2013;43(3):19–35. <https://doi.org/10.47678/cjhe.v43i3.184741>
15. Jeffrey L, Milne J, Suddaby G, Higgins A. Blended learning: how teachers balance the blend of online and classroom components. *Journal of Information Technology Education: Research*. 2014;13:121–40. <https://doi.org/10.28945/1968>
16. Owston R, York D, Murtha S. Student perceptions and achievement in a university blended learning strategic initiative. *Internet High Educ*. 2013;18:38–46. <https://doi.org/10.1016/j.iheduc.2012.12.003>
17. Jowsey T, Foster G, Cooper-ioelu P, Jacobs S. Blended learning via distance in pre-registration nursing education: a scoping review. *Nurse Education Practice*. 2020;44:102775. <https://doi.org/10.1016/j.nepr.2020.102775>
18. Eka NGA, Houghty GS, Juniarta J. The effect of blended learning on nursing students' knowledge. *Jurnal Ners*. 2019;14(3):1–4. <https://doi.org/10.20473/jn.v14i3.16933>
19. Lee U, Choi H, Jeon Y. Nursing students' experiences with computer simulation-based communication education. *Int J Environ Res Public Health*. 2021;18(6):1–12.
20. Bradshaw MJ, Hultquist BL, Hagler DA. Innovative teaching strategies in nursing and related health professions. 8th ed. Burlington: Jones and Bartlett Learning; 2021.

21. Jiménez-Rodríguez D, Navarro MDMT, Plaza del Pino FJ, Arrogante O. Simulated nursing video consultations: an innovative proposal during COVID-19 confinement. *Clin Simul Nurs.* 2020;48:29–37. <https://doi.org/10.1016/j.ecns.2020.08.004>
22. Riesen E, Morley M, Clendinneng D, Ogilvie S, Ann Murray M. Improving interprofessional competence in undergraduate students using a novel blended learning approach. *J Interprof Care.* 2012;26(4):312–8. <https://doi.org/10.3109/13561820.2012.660286>