

Nursing Students and Online Learning During COVID-19 Pandemic: A Scoping Review

ABSTRACT

Aims: This scoping review paper aims to overview the published research related to nursing students and online learning during the COVID-19 pandemic over the last year.

Methodology: Online Google Scholar database was searched for articles related to nursing students and online learning during Covid 19 published between 1st June 2020 to 1st June 2021.

Results: Initial search with key words "nursing students" found 20300 results, finally 39 articles were selected which meet the eligibility criteria. Majority of the authors (69.23 %) have an academic affiliation, only one single author (11.2 %) with clinical affiliation and those who had both academic and clinical were (28.19 %). Only (5.12 %) study applied any theory or conceptual frame work. The focus of the studies selected were mainly (33.33 %) perception or attitude, (28.20 %) impact and satisfaction were as (20.52 %) focused on experiences and challenges faced. we could only find (5.12 %) studies those where funded. In the selection of research designs majority (46.15 %) adopted quantitative approach followed by (20.51 %) qualitative approaches and (10.25 %) mixed methods; other (23.07 %) of articles included reports, editorials, reflective articles, opinions. (94.8 %) studies were done without any collaboration with other disciplines only (5.12 %) studies were multidisciplinary.

Conclusion: It shows nursing teaching faculties swiftly responded to COVID-19 by conducting researches mainly adopting quantitative approaches. Nursing research needs more collaboration and funding.

Keywords: COVID 19, Nursing Research, Scoping Review, Nursing, Online Learning, Students

1. INTRODUCTION

Corona virus disease 2019 (COVID-19) is causing a slew of public health responses worldwide (1). Closures of schools and universities are among the most visible social (physical) barriers employed to slow the spread of this contagious disease. Many Asian and European countries have implemented nationwide school closures, and some U.S. school districts and states have done so. These closures keep students from interacting with one another and minimize the number of incidents (2). [The impact of COVID-19 school closures on the U.S. healthcare workforce and net mortality](#). As a result of the significant disruption caused by COVID-19, the education sector is undergoing a paradigm change. Students faced various hurdles when they transitioned from face-to-face education to an online learning platform. Technology infrastructure, technology assistance, time management, learning space, family, and work were concerns (3). Many instructors were forced to teach their classes online due to the COVID19 pandemic, which presents the potential to transform education, teacher education, and educational institutions (4). E-Learning refers to [nursing students' learning](#) in an online setting and the use of computer-based technology and the internet to make learning and teaching easier (5,6). The COVID-19 pandemic prompted nursing education to use alternative platforms such as learning management systems and web conferencing to deliver traditional didactic content synchronously and asynchronously. Many nursing programs abruptly pulled students from hands-on clinical experiences at healthcare institutions, replacing these experiences with virtual and web-based simulation due to worries about COVID-19 virus exposure and the need to conserve personal protective equipment (7).

Comment [SEM[1]: Rephrase ... the sentence does not contain a verb.

Comment [SEM[2]: E-learning does not only pertain to nursing students. My suggestion is that the word nursing should be omitted in this sentence, because the authors define the concept e-learning in this sentence. The rest of the journal refers to e-learning for nursing students.

According to [Polit and Beck](#), nurses are committed to engaging in at least one role in research. "At one end stay consumers of nursing research, who read reports of research or research summaries for relevant findings which affect their practice. At the other end of the continuum are nursing researchers who contribute in gross for the body of knowledge: nurses who dedicate themselves and actively participate in generating evidence by doing research" (8). Nurses increasingly conduct researches to adopt evidence-based practices in their professional arena, especially in clinical settings (9).

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2. PURPOSE

The primary purpose of this review paper is to provide an overview of the published research articles related to nursing students and online learning during the COVID-19 pandemic from June 2020 to June 2021. The following themes have guided the review: Professional affiliations, Theoretical or conceptual Framework, Focus of Research topic, Study design, Collaboration with other Disciplines, Participants of the study, and Source of funding.

3. METHODOLOGY

A thorough literature search was performed on Google Scholar for articles published in the English language and studies conducted between [2020 June 2020](#) and June 2021. The following key words were included: "Nursing students", "Online Learning", "E-Learning" "COVID-19", and "Corona Virus Diseases"

The following keywords "alternate education" and "distance education" were excluded from the search due to irrelevancy. The researchers read and analyzed each article on the inclusion list as part of the evaluation procedure and completed the data extraction form. The research assistant reevaluated the included studies to validate the approach, and any differences between these evaluations were addressed through conversations and clarifications.

4. FINDINGS

4.1 Overview

The initial search had 20300 results then filtered into 39 articles after a careful assessment. (Figure1). Explains the search strategy and selection process adopted by the authors.

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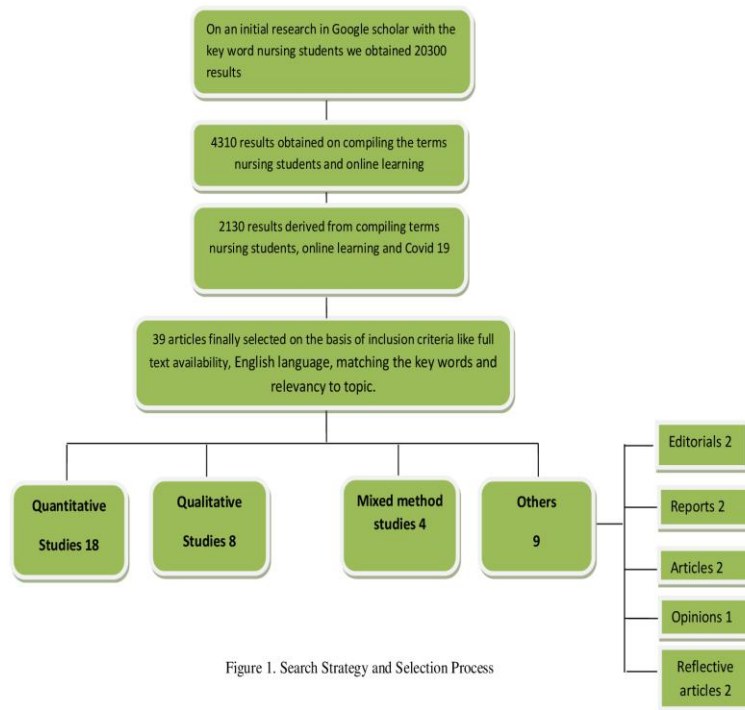


Figure 1. Search Strategy and Selection Process

In the present study, we present the themes in Professional affiliations, Theoretical or conceptual Framework, the focus of Research topic, Study design, Collaboration with other Disciplines, Participants and source of funding.

4.2 Professional Affiliation

100 % of the authors were affiliated. Majority of them were affiliated with academic institutions. (69.23%) N=27, only one author was found clinically affiliated (11.2%) N=1, authors with both academic and clinical affiliation stood (28.19%) N=11.

4.3 Theoretical or Conceptual Framework

In the included studies, (94.88%) N= (36) didn't adopt any Theoretical or Conceptual Framework. At the same time, (5.12%) N= (2) used theory in their study. Here transition theory and Watson's unitary caring theory were used.

4.4 The focus of the Research topics

The topics or themes of research topics of the selected studies focused on different aspects like (33.33%) N= (13) intended to study perception and attitude, (28.2%) N= (11) studies kept their focus on impact and satisfaction, (20.52%) N= (8) studies explored the experiences and challenges faced rest (19.4 %) N= (7) studies was a combination of topics described above.

4.4 Study Design

Out of the selected 39 studies (46.15%) N=(18) adopted a quantitative approach , (20.51%) N= (8) used qualitative study design only (10.25%) N= (4) used mixed methods, while remaining (23.07%) N= (9) were other forms of research papers like (5.12%) N= (2) editorials, (2.56%) N= (1) opinion, (5.12%) N= (2) reflective article, (5.12%) N= (2) reports, (5.12%) N= (2) review articles

4.5 Collaboration with other Discipline

(94.8%) N= (37) of the studies included in the review no collaboration was observed with any other disciplines, only (5.12%) N= (2) studies collaborated with a multidisciplinary team.

4.6 Participants

The participants of the studies which were selected for this scoping review were Degree Nursing Students (74.35%) N= (29), Masters Nursing Students (10.25%) N=(4), B.sc and M.sc (15.38%) N=(6), no Diploma

Comment [SEM[5]: BSc and MSc

Nursing Students were included as participants. Other articles were editorials, reports, reflective articles, and opinions.

4.7 Source of Funding

Out of all 39 studies reported in this review (94.8%), N= (37) didn't receive any funds from any agencies, only (5.12%) N= (2) received funds. The funding agencies were The Fogarty International Center of the National Institutes of Health, U.S. Department of State's Office of the U.S. Global AIDS Coordinator and Health Diplomacy (S/GAC), and President's Emergency Plan for AIDS Relief (PEPFAR) and another funded by Universiti Sains Malaysia Research University Grant.

5. DISCUSSION

5.1 Research Approach

In the last ten years, nursing research has grown significantly. Nursing research significantly impacts present and future professional nursing practice, making it an essential part of the training process (10). Each research design's objective aids nurses in picking the optimum design for their research topics. The first and most crucial stage in doing scientifically sound research – whether qualitative or quantitative – is focusing on the research topic and enlisting the best research design to answer that question (11). Qualitative and quantitative studies are the two types of research. The word "measure" is used frequently in quantitative research, but "perception" is used frequently in qualitative research. According to Esperon (2017), quantitative research was formerly prioritized, but qualitative and mixed studies have recently gained traction. Similarly, this review supports the same result because most of the publications included in the review used a quantitative technique rather than a qualitative or mixed methodology approach. The use of diverse or multiple methods is becoming more popular, giving nursing researchers another option for addressing numerous aspects (12).

Comment [SEM[6]: Does this support Esperon's finding? According to the authors the research about this specific topic still preferred quantitative methodologies?

5.2 Nursing Education

Globally, providing education in an online format has witnessed multifaceted impediments. First, academicians must be lucid about the contrast between what others are following—offering education in an emergency distance-learning format—and robust online education (13). However, gross number of academic nursing institutions has embraced online education. Developing strategically significant plans about how to offer vital online programs enabled them as well (14). The novel corona virus, formally named COVID-19 by the WHO, has wreaked havoc across all academic institutions adding even more

responsibility to already pressured faculty (15). Like many other businesses, educational institutions have had to convert all classes, meetings, and other face-face encounters to a virtual environment to ensure their safety and students. This task has not been easy for those unfamiliar with the complexities of virtual learning, increasing both workload and stress during an unsettling time. These additional job demands and ongoing organizational change have required faculty to exercise their leadership abilities in unfamiliar areas (16).

5.3 Affiliation

As the theme which revolved around this scoping review was online learning, almost of all the authors were affiliated to academic institutions like the college of nursing or school of nursing, while very few had both academic and clinical affiliation and hardly one author who had only clinical association. Clinical nurses were less involved in researchers, which originated from nursing educational institutions.

5.4 Collaboration with other disciplines

Collaboration is the integration or linking together of different pieces of a project to accomplish a collective task so that it can effectively use one another's ideas and expertise without frequent face-to-face interaction (17). Collaboration brings significant outcomes in research; all studies should consider the scope of it. Here only very few studies were conducted on a collaborative platform. On the other hand majority of the studies were confined to its own mother institutions or universities.

5.5 Funding

The promotion of nursing research is still challenging due to lack of internal funding for research and innovation (18). Ideas will stay lifeless sometimes in research if it cannot be propelled by financial support. Here, there was only one study that was fully funded and another study that was partially funded. All other studies didn't receive any funds or were self-funded. Nursing research funding is still under the expectations; only 5.12% of the revised articles received funds. So, nursing research needs more support in terms of monetary basis.

6. LIMITATIONS AND RECOMMENDATIONS

Lack of collaborative research was observed as a limitation. Doing collaborative research can bring up the scope of research and break the limits of various arenas. Clinically affiliated researchers participated less in academic-oriented research subjects. Funding for the conduction of researches was another significant limitation observed. Topics like Perceptions, attitudes, challenges remain the main area in the selected studies. There should be global preparation and initiative to provide hands-on training for nursing teachers

to deal more effectively with changing technological advancements in nursing education. More focus should be given to nursing teachers of developing countries and underdeveloped countries.

7. CONCLUSION

The overall result showed that nurses throughout the globe swiftly responded to the sudden paradigm shift in nursing education which occurred during Covid 19, using their research skills. Nurses of academic institutions tried and managed to find out all possible solutions in order to meet the challenges of online learning. If more collaborative research would have been happened, it would have enriched the nursing research with different perspectives on this topic. During this pandemic time, nursing teaching faculties encountered various struggles to establish a new teaching system that totally relied upon technology. We recommend more studies to bring out the challenges and struggles faced by nursing teaching faculties and prepare them for the technology-based education system.

ETHICAL APPROVAL

As this is a scoping review it doesn't need ethical approval or informed consent.

REFERENCES

1. Organization W.H. Coronavirus disease 2019 (COVID-19): situation report, 94. 2020;
2. Bayham J, Fenichel E.P. Impact of school closures for COVID-19 on the U.S. healthcare workforce and net mortality: a modelling study. *Lancet Public Health*. 2020;5(5):e271–8.
[doi.org/10.1016/S2468-2667\(20\)30082-7](https://doi.org/10.1016/S2468-2667(20)30082-7)
3. Carolan C, Davies CL, Crookes P, McGhee S, Roxburgh M. COVID 19: Disruptive impacts and transformative opportunities in undergraduate nurse education. *Nurse Educ Pract*. 2020;46:102807.
[doi.org/10.1016/S2468-2667\(20\)30082-7](https://doi.org/10.1016/S2468-2667(20)30082-7)
4. van der Spoel I, Noroozi O, Schuurink E, van Ginkel S. Teachers' online teaching expectations and experiences during the Covid19-pandemic in the Netherlands. *Eur J Teach Educ*. 2020;43(4):623–38.
doi.org/10.1080/02619768.2020.1821185
5. Voutilainen A, Saarinen T, Sormunen M. Conventional vs. e-learning in nursing education: A systematic review and meta-analysis. *Nurse Educ Today*. 2017;50:97–103.
doi.org/10.1016/j.nedt.2016.12.020

6. Mahmoud SR, El Magrabi NM, Mohamed FR. Faculty of Nursing Teaching Staff members and Students Attitudes toward e-learning. *IOSR J Nurs Health Sci.* 2015;4(4):2320–1940.
7. Wallace S, Schuler MS, Kaulback M, Hunt K, Baker M. Nursing student experiences of remote learning during the COVID-19 pandemic. In: *Nursing Forum.* Wiley Online Library; 2021. doi.org/10.1111/nuf.12568
8. Polit DF, Beck CT. *Nursing research: Generating and assessing evidence for nursing practice.* Lippincott Williams & Wilkins; 2008.
9. Allobaney NF, Nashwan AJ, Mohamed AS. Nursing Research during COVID-19 Pandemic: A Scoping Review. *Open J Nurs.* 2020;10(10):952–9. doi.org/10.4236/ojn.2020.1010066
10. Tingen MS, Burnett AH, Murchison RB, Zhu H. The importance of nursing research. *J Nurs Educ.* 2009;48(3):167–70. doi.org/10.3928/01484834-20090301-10
11. Driessnack M, Sousa VD, Mendes IAC. An overview of research designs relevant to nursing: part 2: qualitative research designs. *Rev Lat Am Enfermagem.* 2007;15(4):684–8.
12. Martha D, Sousa VD, Mendes IAC. An overview of research designs relevant to nursing: Part 3: Mixed and multiple methods. *Rev Lat Am Enfermagem.* 2007;15:1046–9.
13. Ferri F, Grifoni P, Guzzo T. Online Learning and Emergency Remote Teaching: Opportunities and Challenges in Emergency Situations. 2020;18. doi.org/10.3390/soc10040086
14. Roddy C, Amiet DL, Chung J, Holt C, Shaw L, McKenzie S, et al. Applying best practice online learning, teaching, and support to intensive online environments: an integrative review. In: *Frontiers in Education.* Frontiers; 2017. p. 59. doi.org/10.3389/educ.2017.00059
15. Rehman H, Ahmad MI. COVID-19: a wreak havoc across the globe. *Arch Physiol Biochem.* 2020;1–13.
16. Kumar AA. Research Note on Online Learning in India—Issues and Challenges. *Prabandhan Indian J Manag.* 2021;14(8):40–6.
17. Cummings JN, Kiesler S. Collaborative research across disciplinary and organizational boundaries. *Soc Stud Sci.* 2005;35(5):703–22. doi.org/10.1177/0306312705055535
18. Syme R, Stiles C. Promoting nursing research and innovation by staff nurses. *Appl Nurs Res.* 2012;25(1):17–24. doi.org/10.1016/j.apnr.2010.06.005

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