



Brief Report

A Spotlight on the Experience of E-learning as a Learning Method for the Undergraduate Pediatric Nursing Students in Iraq during the COVID-19 Pandemic

Mahmood D. Al-Mendalawi¹, Adraa H. Shawq^{2*}, Mohammed Jalal Al-Khalidi¹

¹ Department of Pediatrics, Al-Kindy College of Medicine, University of Baghdad, Baghdad, Iraq

² Department of Pediatric Nursing, College of Nursing, University of Baghdad, Baghdad, Iraq

*Corresponding author: adraa.hussein@conursing.uobaghdad.edu.iq

ABSTRACT

Article history:

Received 6 March 2022

Accepted 20 May 2022

Available online 31 August 2022

<https://doi.org/10.47723/kcmj.v18i2.804>

Keywords: E-learning, nursing students, curriculum, COVID-19 pandemic.



This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license

<http://creativecommons.org/licenses/by/4.0/>

The emergence of COVID-19 has resulted in an unprecedented escalation in different aspects of human activities, including medical education. Students and educators across academic institutions have confronted various challenges in following the guidelines of protection against the disease on one hand and accomplishing learning curricula on the other hand. In this short view, we presented our experience in implementing e-learning to the undergraduate nursing students during the present COVID-19 pandemic emphasizing the learning content, barriers, and feedback of students and educators. We hope that this brief view will trigger the preparedness of nursing faculties in Iraq to deal with this new modality of learning and improve it should the COVID-19 pandemic keep on or a new pandemic emerges.

Introduction

Coronavirus disease 2019 (COVID-19), related to the RNA virus family, is a highly contagious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Since its start in Wuhan, China in late December 2019, COVID-19 infection has affected many parts of the world inducing a state of governmental and public panic crisis. This has triggered the World Health Organization to declare a global pandemic and public health emergency on March 11, 2020 (1). Up to March 02, 2022, there have been 437,333,859 confirmed cases, including 5,960,972 deaths worldwide (2).

Apart from its detrimental effects on health as well as social, economic, and environmental aspects (3-6), COVID-19 has seriously hampered medical education. Worldwide, several challenges were faced. These included the following: social distancing influencing the delivery of medical knowledge, assessment, and interviewing; economic outcomes of the pandemic; the rise of patients compromising the core training; and the impact on the wellness and mental health of educators and students (7).

Nursing faculties across the world have responded to the challenges imposed by the COVID-19 pandemic in terms of closing educational institutions and setting electronic learning (e-learning).

Evaluation of this modality of learning has shown that e-learning during the COVID-19 period was as effective as traditional face-to-face learning for knowledge and practice (8,9) and virtual simulation has met students' clinical learning needs and outcomes (10). Moreover, it has offered students with the opportunity to set lifelong learning and continuing professional development in a practical and flexible manner (11).

In Iraq, little data are present on the evaluation of e-learning of undergraduate nursing students. Data are confined to the Kurdistan region and related mainly to the students' perspectives on that issue. Shehab and Khalifa reported that two-fifths of the students from two Colleges of Nursing had various grades of difficulties in handling e-learning and these difficulties differed from one college to another while only some of the students had preparedness and interest in e-learning (12). We attempted in this brief report to narrate our experience in implementing e-learning to the undergraduate nursing students during the COVID-19 pandemic in terms of the learning content, barriers, and feedback from students and educators.

The scope of e-learning for nursing students

For decades, traditional classroom learning and bedside teaching have been the usual methods of teaching/learning in Iraq. However, the rise in the number of COVID-19 cases in 2020 and measures taken by the health authorities in Iraq to limit the spread of the disease has forced the Ministry of Higher Education and Scientific Research to order changing teaching modalities in academic institutions. From the academic year 2020-2021 onward, the department of pediatric nursing at College of Nursing, University of Baghdad, has responded timely to that order and introduced virtual reality technology in nursing learning curricula at the undergraduate level, and students' teaching was shifted from traditional learning to online alternative.

During the COVID-19 pandemic, educators at the faculty of pediatric nursing utilized a free learning platform (Google classroom) to continue the educational process. As the educators had no previous training on e-learning with the absence of related guidelines, the deanship of the college of nursing established quick and intensive workshops to teach educators how to use learning platforms. As a result, classrooms were set and students were asked to join these classes. The theoretical aspect of the learning curriculum was delivered to students in different ways, including PowerPoint templates that were introduced to the classroom homework (asynchronous learning), Google meet platform for live learning to guarantee effective interaction between students and educators (synchronous learning), and YouTube application to administer lectures on various topics in pediatric nursing. To make the learning sessions more useful, students were asked to actively participate in discussing the learning materials. They were also asked to prepare and administer seminars on certain topics to be openly discussed with students and educators. Considering the practical part of the curriculum, the educators presented short educational videos on various medical procedures in pediatric nursing supported by educators' voices to make these videos more explainable and understandable and their websites links were attached to the platform. Students were scored using various online

formative and summative assessments such as short essays, single answer, multiple-choice questions, and true and false questions as well as oral examinations through the live Google meet platform. To define how the educational process flows, students' feedback was taken using a short online questionnaire.

Barriers facing e-learning implementation:

Implementing e-learning at our nursing faculty was not easy as it faced numerous barriers. Interrupted internet connectivity and electric power, impaired readiness of the faculty to deal with a new learning modality, unavailability of definite online learning guidelines set by the faculty, absence of technical expertise among a good number of educators and students, noticeable variation in the educational objectives, materials, and tools of delivery by educators, limited expertise of educators in delivering educational materials, particularly the clinical skills due to lack of formal training, limited interest and motivation of students to follow-up e-learning due to pessimistic impact of the pandemic, and the defective capability of a good number of the students to have updated communication tools such as mobiles, laptops, and internet flow to guarantee effective learning due to economic constraints.

Feedback from nursing students and educators on e-learning:

To have insight on the effectiveness of e-learning, feedback from students and educators was taken. On one hand, students and educators pointed out some positive aspects, namely the relatively helpful and informative e-learning option compared to traditional learning to continue the learning process during the pandemic, relatively effective involvement of educators in learning sessions, provocation of self-directed learning, automated formative and summative students' assessments saving time and effort, and relative satisfaction in the learning process. On the other hand, students and educators stressed some negative aspects, notably implementing e-learning without prior adequate preparation, absence of active physical interaction with fellow students and educators, focusing the educational schedule on the theoretical aspect of learning at the expense of the practical aspect, lack of effective bedside teaching and manual skills acquisition on actual patients, inability to complete the learning schedule in due time, unavailability of highly qualified learning platforms due to high cost, breaking the assessment integrity with bias in assessing the actual students' performance and scores and easiness of utilizing unfair means in cheating in examinations and assignments, and improper infrastructures in terms of interrupted internet service and electricity power that have negatively affected delivering educational contents and assessment, increased the anxiety and tension in students and educators, and consequently impacted the compliance of students.

E-learning for nursing students in Iraq shared to some extent concerns similar to that reported in developing countries in terms of stressing students and educators, convenience and flexibility of e-learning, opportunities for professional and personal development, learning integrity, social isolation, acquisition of practical skills, and technical barriers (13-15).

Conclusion

E-learning has partially managed in enabling the continuity of learning through introducing medical knowledge, exploring practical skills, and fulfilling the learning objectives of nursing students despite the unprecedented obstacles met by the nursing faculty during the implementation of e-learning. Future large-scale studies across the country are needed to determine the real effectiveness, barriers, outcomes, and perspectives of e-learning and innovative, flexible learning modalities must be set should the COVID-19 pandemic keep on or a new pandemic erupts.

References

- [1] Mahase E. Covid-19: WHO declares pandemic because of “alarming levels” of spread, severity, and inaction. *Bmj*. 2020 Mar 12;368(8):1036.
- [2] World Health Organization 2. Coronavirus disease (COVID-19), 12 October 2020.
- [3] Al-Hamamy HR. The Impact of COVID-19 on Healthy Related Issues, A structured Review. *Al-Kindy College Medical Journal*. 2021 Dec 30;17(3):152-7.
- [4] Abrams EM, Greenhawt M, Shaker M, Pinto AD, Sinha I, Singer A. The COVID-19 pandemic: adverse effects on the social determinants of health in children and families. *Annals of Allergy, Asthma & Immunology*. 2022 Jan 1;128(1):19-25.
- [5] Danielli S, Patria R, Donnelly P, Ashrafian H, Darzi A. Economic interventions to ameliorate the impact of COVID-19 on the economy and health: an international comparison. *Journal of Public Health*. 2021 Mar;43(1):42-6.
- [6] Ashraf MA, Faheem M, Hassan MA. Impact of COVID-19 on environmental ecosystem. *Environmental Science and Pollution Research*. 2021 Nov 30:1-3.
- [7] Kaul V, de Moraes AG, Khateeb D, Greenstein Y, Winter G, Chae J, Stewart NH, Qadir N, Dangayach NS. Medical education during the COVID-19 pandemic. *Chest*. 2021 May 1;159(5):1949-60.
- [8] Weston J, Zauche LH. Comparison of virtual simulation to clinical practice for prelicensure nursing students in pediatrics. *Nurse Educator*. 2021 Sep;46(5):E95.
- [9] Hao X, Peng X, Ding X, Qin Y, Lv M, Li J, Li K. Application of digital education in undergraduate nursing and medical interns during the COVID-19 pandemic: A systematic review. *Nurse education today*. 2022 Jan 1;108:105183.
- [10] Fung JT, Zhang W, Yeung MN, Pang MT, Lam VS, Chan BK, Wong JY. Evaluation of students' perceived clinical competence and learning needs following an online virtual simulation education programme with debriefing during the COVID-19 pandemic. *Nursing Open*. 2021 Nov;8(6):3045-54.
- [11] Beckett H. Effect of e-learning on nurses' continuing professional development. *Nursing Management*. 2021 Jun 3;28.(*)
- [12] Shehab A, Khalifa M. Evaluation of the Current Challenges of Nursing Students about Online Nursing Education at Kurdistan Region in Iraq. *Kufa Journal for Nursing Sciences*. 2021 Jun 29;11(1):1-1.
- [13] Nabolsi M, Abu-Moghli F, Khalaf I, Zumot A, Suliman W. Nursing faculty experience with online distance education during COVID-19 crisis: a qualitative study. *Journal of Professional Nursing*. 2021 Sep 1;37(5):828-35.
- [14] Eltaybani S, Abdelhalim GE, Abdelgawad ME. Nursing students' and educators' experience with e-learning during a pandemic: An online survey. *InNursing Forum* 2021 Oct (Vol. 56, No. 4, pp. 878-888).
- [15] Kunaviktikul W, Ang E, Baridwan NS, Bernal AB, Dones LB, Flores JL, Freedman-Doan R, Klunklin A, Lee WL, Lin CC, Luk TT. Nursing students' and faculty members' experiences of online education during COVID-19 across Southeast Asia: A Photovoice study. *Nurse education today*. 2022 Apr 1;111:105307.

To cite this article: Al-Mendalawi M, Shawq A, Al-Khalidi M. A Spotlight on the Experience of E-learning as a Learning Method for the Undergraduate Pediatric Nursing Students in Iraq during the COVID-19 Pandemic. *Al-Kindy College Medical Journal*. 2022;18(2):162-164.