

# Impact of Covid Lockdown in Nursing Education: India

Balasubramanian N<sup>1</sup>, Asha P Shetty<sup>2</sup>

<sup>1</sup>Professor cum Principal, Ambika College of Nursing, Mohali

<sup>2</sup>Professor cum Principal, College of Nursing, AIIMS, Bhubaneswar.

**Abstract:- This article aims to describe thoughtfully the consequence of COVID-19 on nursing education in India. Nursing education in India and in other countries is highly affected during COVID-19 pandemic. As per the national advisory and respective affiliated bodies the nursing institutions in India followed social distancing as one of the preventive measures, and hence the online teaching learning activities were adopted for training the students. Various research and non research articles were reviewed to focus on the impact of nursing education in India. Nursing education during pandemic caused a paradigm shift from face-to-face teaching and learning to online learning and clinical experiences also shifted to virtual to protect the students from the pandemic. Accessibility, affordability and reliability are the drawbacks while delivering online classes. Nursing regulatory bodies also outlined commendable guidelines. Online method of teaching and learning is challenging for both faculty and students which has major role in influence of nursing education.**

**Keywords:- COVID-19, Nursing education, India, Clinical, Teaching, Learning.**

## I. INTRODUCTION

Severe Acute Respiratory Syndrome-Corona Virus (SARS-COV 2) is an infectious disease caused by novel corona virus in the year 2019 (COVID-19)<sup>1</sup>. It is dreadful communicable disease first reported on 31<sup>st</sup> December from Wuhan city, China. It spread around the world and caused severe morbidity and mortality. It mainly transmits through inhalation or infected respiratory droplets. It tremendously paralyzed health sector and also socio-economic sectors created public health crisis<sup>2</sup>.

In India, on 16 March 2020, central government declared complete lockdown which imposed schools, colleges and universities to close as a preventive measure and as part of social distancing policy to contain transmission<sup>3</sup>. The closure of educational institutions has widely impacted the students, faculty and all stakeholders.

Worldwide, 138 countries education has been disturbed in school and university.—Approximately 60.2 million teachers in school and faculty in university were not available in the institution<sup>4</sup>. Due to unprecedented situation, sudden shift from conventional method to online method of teaching resulted in unforeseen outcome in nursing

education. Students and faculty had to overcome lot of challenges on account of the use of technology and the means of adapting to it<sup>5</sup>.

## Impact of covid on nursing education

Nursing education in all universities and colleges are designed to conduct face- to face teaching, hands on training to make the nursing students competent with knowledge, skills and attitude to nursing. Nursing program adopts lectures, tutorials, clinical training, laboratory practice, community experience, assignments, case presentations, group work, research projects and lot of extra-curricular activities<sup>6</sup>. All these activities were affected with COVID pandemic and took architype shift from conventional to virtual learning, which is justifiable and usefulness of it in teaching nursing students during pandemic is still questionable<sup>7</sup>. In India, these types of teaching method become a challenge where nursing education is under low resources. It is a challenge for faculty members as well as for students to use new technologies and innovative methods<sup>5</sup>.

## Challenges faced by nursing faculty

Nursing faculty has to take a dynamic protagonist in engaging students during lock down to create an active learning environment<sup>8</sup>. Online education is the only option, solution and blessing in this catastrophe to prevent the academic delay of their course<sup>9</sup>.

Several online platforms have been utilized to support live video teaching such as zoom, Cisco WebEx, Google meet, Skype, Facebook Live, YouTube Live, UberConference, FreeConference, Dingtalk, Lark, Teams, TrueConf online, Slack video calls, Lifesize go, Google class room to take classes for students through online<sup>10</sup>. Faculty requires special skills to take online classes. The skills required are: proficient computer knowledge, good communication skill, clarity of expression, emotionally connects with students and skills required to meet the demands of outline platforms<sup>11</sup>. Though it was challenging it has enhanced the opportunity for the nursing faculty to hone their skill to learn advanced technology<sup>12</sup>.

Faculty members faced challenges and encountered lot of problems such as lack of IT support, continuous technological changes, unequal access for all students, un-optimized software for mobile devices and security issues and also faced institutional support barriers such as the budget for purchasing advanced technologies, lack of

training, lack of technical support, lack of clarity and directions, lack of technical knowledge, negative attitude, lack of motivation, lack of integration of course and technical knowledge, lack of proper planning in virtual learning<sup>13,14,15</sup>.

## II. CHALLENGES FACED BY NURSING STUDENTS

### Theory classes

In this new era, pandemic created new wakeup call in nursing education. Students were anxious, tensed, stressed and apprehensive about contracting the infection<sup>8</sup>. Nursing teaching includes lecture method, demonstration, discussion using audio-visual aids in the class room, whereas, lockdown created uncertainty for teaching and interrupted student learning and classes moved to online teaching and learning<sup>16</sup>. The essential tools to attend the online classes are availability of computer or laptop or smart phone with internet or Wi-Fi connection. Even though teaching apps are new for the students, they grasped the technology faster than the faculty<sup>17</sup>.

During online class, students seldom ask questions or hesitate to ask questions. It decreased the level of interaction between student and educator. Lack of concentration, eyestrain and headache was observed among the students due to continuous online educational mode. Network issues, difficulties in understanding the classes created irritability among students. Lack of personal touch and interaction made them frustrated. Distractions and lack of support at home caused psychological upset. Some students started using other apps during classes due to boredom classes. Sometimes raised hand may not be noticed by the faculty, message box may be disturbing for the students<sup>18,19,20</sup>.

### Clinical training

Clinical education forms more than half of the formal educational course in nursing. Hence, it is considered as an essential and integral part of the nursing program<sup>21</sup>. During clinical training, nursing students have to learn experimentally and convert theoretical knowledge into psychomotor skills which are of significance for patient care<sup>22</sup>. During lockdown, clinical training of nursing students in hospital is completely paralyzed<sup>23</sup>. Most of the colleges discontinued or have not exposed their students for clinicals. Students have not performed bedside teaching, clinical case presentation, case study, health assessment, hands-on training, interaction with patient and their family members<sup>24</sup>.

In India various nursing courses are designed to help the students to develop an understanding of nursing in various clinical setting. Step-by-step students will be exposed to specialized clinical area. Since lock down, such clinical learning was hampered. It became a best-bet "How should clinical experience be possible when students are not at college?" OSCE/OSPE, virtual simulations were the suggestions given by the nursing experts. It is also believed that simulated ward training can provide a constructive educational environment similar to the clinical setting to

help nursing students to learn and build their knowledge and skills. Videos on clinical nursing procedures prepared by nursing faculty and already available videos in YouTube were suggestions given to their students by the faculty which they could watch and access at any time and utilize it during this unavoidable situation<sup>25</sup>.

### Advantages of online teaching and learning activity during pandemic lockdown

During this pandemic situation, online method of teaching is the best solution and panacea to keep students safe to control the spread of corona virus. It is affordable, cost-effective, enhances communication between faculty and students. It can reach to remote students also. Similarly, faculty can teach several students at a time. Online class has an option to save the teaching and it can be referred for future reference. To conduct examination, some universities are having online examination software, which may prevent institutions to delay of a regular academic calendar<sup>26</sup>.

### Disadvantages of online teaching and learning during pandemic lockdown

Many students are not having essential knowledge to use online platforms safely and they became vulnerable for sexual exploitation. Students from low economic status are not able afford technical gadgets and internet facility and created differentiation between privileged and unprivileged students. Lack of discipline and laziness were commonly reported by the parents when students were at home and getting online teaching. Online method of teaching hampers the interpersonal relationship between faculty and students due to lack of internet access, improper notification of classes, unavailability of notes, lack of requisite digital equipment etc. Increase of screen time makes the students more dependent on gadgets. Most of the faculties are taking classes in free online platform but it has time limit. There is chance of hack the digital devices if there is no antivirus programs and latest software updates<sup>25,26,27,28</sup>.

### Approaches to overcome happenstances during online learning

Cyber security is required when attending the classes for both faculty and students. Faculty or parents should ensure the usage of secure apps<sup>29</sup>. Faculty must facilitate "waiting room" feature to have control over students, disable the "join before host" feature, limit screen sharing to the host only, lock the meeting session once all participants have joined, restrict the call record feature and 'allow record' to trusted participants only. Set the unique pass word which should be difficult to guess.

Teaching should be lively and interesting and more interaction is required to divert the student distractions so that students will concentrate on the class as well as they will not browse other apps. Teaching content can be divided into several small modules lasting for 30 minutes to make the students more attentive in the class. Authenticated virtual simulations can be recommended by the faculty and it can be discussed during class hours. It can be imitating but not as equal to actual clinical setting<sup>8,14</sup>.

### Preparedness in nursing education

COVID-19 pandemic has affected the nursing education profoundly in conditions of direct care nursing practice, and healthcare system operations. The pandemic has manipulated the professional identity of nurses and nursing education significantly. More focus is to be given on nursing research. Nurses play a vital role in health care system that bother for human cause. However, nursing professional identity has increased for nurses and nursing students during the COVID-19 pandemic<sup>30</sup>. Simulation training in nursing education is adopted by global trend since 2020, with the results supporting that scenario-based simulation training enhances students' preparedness and learning effectiveness and reduces clinical stress during pandemic situation<sup>31</sup>.

The ultimate goal of nursing education is to maintain and improve quality of care during the pandemic. The main focuses of nursing education are to stimulate innovative and creative ideas. It gives productive outcome in nursing research and clinical settings and to take good care of ourselves and to obtain the knowledge and care abilities necessary to relieve the nursing shortage and decrease nursing workloads in clinical settings<sup>30, 31</sup>.

### Suggestions to improve quality of online nursing education

Online education in the nursing is at this point to stay even after the pandemic. It's the right time now to use it for training and education. We need to use this opportunity to grow as teachers and as professionals. It is important to make the best of the situation and maintain a positive attitude. Various articles are reviewed by the authors and the suggestions are based on their outlook.

- A big class lecture can be divided into smaller modules and faculty should prepare online classes materials of less than 30 min by splitting a big single task into multiple small tasks.
- Encourage to use secured online platforms and enhance the safety and safeguarding measures.
- Encourage the students to have a high speed internet access but not to force the under privileged.
- Remedial classes should be taken by the educators separately for the average students.
- Separate discussion classes to be conducted for the students those who have not able to understand the classes to clarify the doubts.
- Nurse educators must guarantee that all academic activities of that session are completed.
- Clinical teaching is tough through online but virtual simulations and e-OSCE are the trial can be conducted.
- Disaster preparedness to be included in the syllabus so that nurses can face any short of catastrophe and involve in patient care.

### III. CONCLUSION

New virus strains are emerging and there is doubt still existing regarding end of COVID-19. Inequalities in treatment modalities, availability of vaccination, oxygen and medications may influence settling down of pandemic situation. Hence, online is the only solution to complete the nursing student's curriculum but clinical training component will be difficult to address. Even virtual simulations are recommendations of the nursing experts but cost and access are the primary challenge. High fidelity simulators are not available in some of the nursing colleges which will create inequality in preparation of the graduate nurses in India. Regulatory bodies should give the list of articles and simulations should be available in each nursing institutions, to obtain affiliation and recognition. Availability of nursing faculty who are expertise in handling the simulations are creditable. Let the nursing educators prepare their students to cope for this crisis and expect the positive change in nursing education.

### REFERENCES

- [1]. WHO Coronavirus. 2020. Available:[https://www.who.int/westernpacifi\\_c/health-topics/coronavirus](https://www.who.int/westernpacifi_c/health-topics/coronavirus)
- [2]. Singhal T. A review of coronavirus disease-2019 (COVID-19). *The Indian Journal of Pediatrics*. 2020 Apr;87(4):281-6.
- [3]. "Schools Closed, Travel To Be Avoided, Says Centre On Coronavirus: 10 Points". *NDTV.com*. Retrieved 18 March 2020.
- [4]. School closures caused by Corona virus (COVID-19). UNESCO. <https://en.unesco.org/covid19/educationresponse>.
- [5]. König J, Jäger-Biela DJ, Glutsch N. Adapting to online teaching during COVID-19 school closure: teacher education and teacher competence effects among early career teachers in Germany. *European Journal of Teacher Education*. 2020 Aug 7;43(4):608-22.
- [6]. Ilankoon IM, Kisokanth G, Warnakulasuriya SS. COVID-19: Impact on undergraduate nursing education in Sri Lanka. *Journal of Public Health Research*. 2020 Nov 17;9(Suppl 1).
- [7]. Dutta S, Ambwani S, Lal H, Ram K, Mishra G, Kumar T, Varthya SB. The satisfaction level of undergraduate medical and nursing students regarding distant preclinical and clinical teaching Amidst COVID-19 across India. *Advances in Medical Education and Practice*. 2021;12:113.
- [8]. Chan MM, Yu DS, Lam VS, Wong JY. Online clinical training in the COVID-19 pandemic. *The Clinical Teacher*. 2020 Aug 1.
- [9]. Chakraborty P, Mittal P, Gupta MS, Yadav S, Arora A. Opinion of students on online education during the COVID-19 pandemic. *Human Behavior and Emerging Technologies*.

- [10]. Chatterjee I, Chakraborty P. Use of information communication technology by medical educators amid covid-19 pandemic and beyond. *Journal of Educational Technology Systems*. 2020:0047239520966996.
- [11]. Das K, Das P. Online Teaching-Learning in Higher Education during Lockdown Period of COVID-19 Pandemic in India.
- [12]. McQuiggan CA. Faculty development for online teaching as a catalyst for change. *Journal of Asynchronous Learning Networks*. 2012 Mar;16(2):27-61.
- [13]. Espino-Díaz L, Fernandez-Caminero G, Hernandez-Lloret CM, Gonzalez-Gonzalez H, Alvarez-Castillo JL. Analyzing the impact of COVID-19 on education professionals. toward a paradigm shift: ICT and neuroeducation as a binomial of action. *Sustainability*. 2020 Jan;12(14):5646.
- [14]. Bao W. COVID-19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies*. 2020 Apr;2(2):113-5.
- [15]. Arora AK, Srinivasan R. Impact of pandemic COVID-19 on the teaching-learning process: A study of higher education teachers. *Prabandhan: Indian journal of management*. 2020 Apr 30;13(4):43-56.
- [16]. Ilankoon IM, Kisokanth G, Warnakulasuriya SS. COVID-19: Impact on undergraduate nursing education in Sri Lanka. *Journal of Public Health Research*. 2020 Nov 17;9(Suppl 1).
- [17]. Dawley L, editor. *The tools for successful online teaching*. IGI Global; 2007 Jan 31.
- [18]. Tabatabai S. COVID-19 impact and virtual medical education. *J Adv Med Educ Prof*. 2020;8(3):140–143. doi:10.30476/jamp.2020.86070.1213
- [19]. Alkhowailed MS, Rasheed Z, Shariq A, et al. Digitalization plan in medical education during COVID-19 lockdown. *Inform Med Unlocked*. 2020;20:100432. doi:10.1016/j.imu.2020.100432
- [20]. Panchabakesan S. Problems and prospectives in distance education in india in the 21st century. *Probl Educ*. 2011;30:113–122.
- [21]. Aghamohammadi-Kalkhoran M, Karimollahi M, Abdi R. Iranian staff nurses' attitudes toward nursing students. *Nurse Education Today*. 2011 Jul 1;31(5):477-81.
- [22]. Borzou R, Safari M, Khoda veisi M, Torkaman B. The viewpoints of nurses towards applicability of nursing curriculum in hospitals affiliated to Hamadan university of medical sciences. *IJME*. 2009;8:205-10.
- [23]. Agu CF, Stewart J, McFarlane-Stewart N, Rae T. COVID-19 pandemic effects on nursing education: looking through the lens of a developing country. *International Nursing Review*. 2021 Jan 29.
- [24]. Aslan H, Pekince H. Nursing students' views on the COVID-19 pandemic and their perceived stress levels. *Perspectives in psychiatric care*. 2020 Aug 17.
- [25]. Forbes H, Oprescu FI, Downer T, Phillips NM, McTier L, Lord B, Barr N, Alla K, Bright P, Dayton J, Simbag V. Use of videos to support teaching and learning of clinical skills in nursing education: A review. *Nurse education today*. 2016 Jul 1;42:53-6.
- [26]. Dhawan S. Online learning: A panacea in the time of COVID-19 crisis. *Journal of Educational Technology Systems*. 2020 Sep;49(1):5-22.
- [27]. Favale T, Soro F, Trevisan M, Drago I, Mellia M. Campus traffic and e-Learning during COVID-19 pandemic. *Computer Networks*. 2020 Jul 20;176:107290.
- [28]. Quesada-Pallarès C, Sánchez-Martí A, Ciraso-Calí A, Pineda-Herrero P. Online vs. classroom learning: Examining motivational and self-regulated learning strategies among vocational education and training students. *Frontiers in psychology*. 2019 Dec 19;10:2795.
- [29]. Pranggono B, Arabo A. COVID-19 pandemic cybersecurity issues. *Internet Technology Letters*. 2021 Mar;4(2):e247.
- [30]. Hsieh H.-Y., Hsu Y.-Y., Ko N.-Y., Yen M. (2020). Nursing education strategies during the COVID-19 epidemic. *Hu Li Za Zhi*, 67(3), 96–101. [https://doi.org/10.6224/JN.202006\\_67\(3\).13](https://doi.org/10.6224/JN.202006_67(3).13) (Original work published in Chinese)
- [31]. Drake H, Abbey D., Holmes C., Macdonald A., Mackinnon L., Slinn J., Baylis J. (2020). Simulation innovation: A novel simulation guide for building community simulation capacity in pandemic preparedness. *Simulation in Healthcare: Journal of the Society for Simulation in Healthcare*, 15(6), 427–431. <https://doi.org/10.1097/SIH.0000000000000515>