

STRENGTHENING TEACHING CAPACITIES FOR NURSE LECTURERS: AN INITIAL REPORT

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ABSTRACT

Objectives: To assess the prior knowledge of teaching methods among nurse lecturers before participating in the train-of-trainer workshop, namely “Covid-19 and Nursing Education: Strengthening nurse lecturers’ teaching capacities and learning environments for the new normal”. **Subjects and methods:** A cross - sectional study was used to assess the knowledge of teaching methods of all nurse lectures from five nursing schools. An online survey, which had 25 items related to 05 topics in the workshop, was developed. **Results:** 26 nurse lecturers completed this online survey. The results of the pre-test survey showed that the average score of knowledge about teaching methods was 12 ($\pm$ 2.8) with the possible score ranged from 0 - 25 points. Only 02 lecturers correctly answered 19 questions out of a total of 25 questions. The most incorrect answers were given by the lecturers in the knowledge area about debriefing techniques in simulation training and peer support methods. **Conclusion:** The initial results of knowledge regarding teaching methods indicated the need of conducting the training program for nurse lecturers. The study outcome has potential application based on its series of training workshops, teaching demonstration and a combination of quantitative and qualitative evaluation on the effectiveness of the training program.

Keywords: Teaching methods, nurse lecturer, teaching capacities, educational environment

1. INTRODUCTION

Throughout the past few years, nursing education in Vietnam has undergone rapid revolutions in order to keep up with the national nursing competency standards [1]. Recently, nursing education in Vietnam has been evaluated as ‘Average’ using the Dundee Ready Educational Environment Measure (DREEM) [2]. Initial results

of recent research on nursing students’ evaluations of their educational environment during the Covid-19 pandemic using the DREEM reported that students rated negatively of their learning environments on a number of aspects such as teaching methods and academic support for students. In addition, 31.36% of the students disagreed with the statement “Online learning is totally an effective method during the

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Covid-19 pandemic”. Covid-19 has caused an interruption in implementing nursing educational programs. With the direct impact from unexpected external causes like a pandemic, difficulties in executing face-to-face teaching techniques have taken a toll on the academic performance of students and impeded on the necessary preparations for students to safely practice nursing skills. Consequently, the demand to understand and apply teaching models that can be used in a flexible manner under various circumstances proves to be crucial for nursing lecturers and educational facilities in the post-pandemic era. Teaching approaches that can be adaptable to the changes of the educational settings and the social context are likely to have an immense influence on minimizing interruptions in learning and the development of students as well as the time of graduation and their professional practice competency.

The project “Covid 19 with nursing education: Strengthening teaching capacities for nurse lecturers and quality of educational environment” funded by the Australian Alumni grants Fund (Round 4 2021 – No. AAGF-R4-00125) and is currently being carried out with the following aims:

- Develop and implement a training program on teaching methods for lecturers from undergraduate nursing schools in Vietnam.
- Evaluate the efficiency of the training program on lecturers and nursing students.

In order to develop an appropriate training program for the nurse lecturers participating in the project, we implemented pre-test survey to evaluate the lecturers’ understanding of teaching methods prior to participating in the new training program of the project.

2. METHODS

2.1. Participants

The study was conducted with the participation of 26 nurse lecturers across 05 nursing schools from North to South of Vietnam in a training of trainer (TOT) workshop on teaching methods.

2.2. Study design

Study design: A descriptive cross-sectional study.

Time of data collection: From August 2022 to September 2022.

Training content: An online TOT workshop program was organized in August of 2022 which included 05 main topics as below:

- Teaching from face to face class to e-learning.
- Team-based learning (TBL).
- Case-based teaching (CBL).
- Debriefing techniques in simulation training.
- Developing peer support program for students.

These five topics were selected based on a preceding survey evaluating nursing students’ perceptions of learning environments, from which it is suggested that lecturers were heavily focusing on practical learning and were considered too rigid and controlling [2]. Aside from that, there was limited availability of academic support programs from schools, especially at times when such services were in high demand such as during the e-learning period of Covid-19. The contents, structures, planning and implementation of the conference are formulated based on

the suggestions, evaluations, and guidance of experts from Australia; USA; and the Ministry of Education of Vietnam as well as project members. The project has also developed and published a reference book titled “Comprehensive teaching & learning methods in nursing education: A training of trainer handbook” which was co-authored and reviewed by professionals on e-learning, nursing education, medical simulation training and academic counseling [3].

Each workshop was arranged in an online format and included an evaluation of nurse lecturers’ knowledge after the series ended.

Sample size and Sampling: Convenience sampling method was used, selecting all nurse lecturers that were willing to participate in the training program and were nominated by educational institutions.

Sample size was calculated based on the time and resources available for the project and training facilities. At the current point of the study, there has been 26 nurse lecturers partaking in the pre-test survey.

Instruments: The questionnaire consisted of 2 parts:

The first part (1) contains general information of lecturers

The second part (2) includes 25 questions which were closely associated with the 5 conference topics established

by project members upon the foundation of the reference book. The questions were designed under a multiple-choice format, with a single correct answer for each question and equivalent to 1 point each. The cumulative score of 25 questions were used to evaluate lecturers’ understanding of teaching methods before joining the training program (0-25 points). Accomplishing 80% of the questions correct indicates that lecturers have sufficient prior understanding of the relevant teaching methods.

Data collection: Data collection was conducted through sending online surveys directly to lecturers and students in the format of Google forms before starting the training program. General information of the study as well as objectives of the evaluation were specified and presented to participants before implementation. Returning the questionnaire was considered to constitute provision of informed consent.

Data analysis: Data was inspected, cleansed, and processed using the medical statistics software Stata version 16.1. Descriptive statistics were used to examine the characteristics and comprehension of lecturers.

Ethical approval: This proposal was approved by the Ethical Review Committee for Biomedical Research of Vinmec International Hospital JSC – VinUniversity (No. 49/2022/QĐ-VMC).

3. RESULTS

3.1. Demographic characteristics

Twenty-six lecturers from two private universities and three public universities participating in the TOT training workshop completed the pre-test. Amongst the lecturers involved, 25 were female while only 1 was male. As for educational levels, 23 lecturers held a master’s degree and 3 obtained a doctoral degree. The average teaching experience of the lecturers was 10 years.

3.2. Initial assessment on knowledge of teaching methods

The initial assessment results indicated (Table 1) that the average apprehension score of the lecturers was 12 points (± 2.8) (equivalent to 48% of questions answered correctly) with the lowest score being 9 while the highest reaches 19. With the criteria stating that answering 80% of the questions correctly would demonstrate a satisfied level of understanding, none of the lecturers passed the test. Only 2 lecturers answered 19 questions correctly out of a total of 25 given questions.

Table 1. Initial assessment on knowledge of teaching methods (n = 26)

No	Question	Frequency of correct answers n (%)	Frequency of wrong answers n (%)
Teaching from class to e-learning			
1	The distinct role of lecturers in positive teaching methods	24 (92.31%)	2 (7.69%)
2	The role of students in Flipped Classroom model	16 (61.54%)	10 (38.46%)
3	Key point in implementing Project-Based Learning	20 (76.92%)	6 (23.08%)
4	Characteristics of Problem-Based Learning	14 (53.85%)	12 (46.15%)
5	Flipgrid application	17 (65.38%)	9 (34.62%)
Team-based learning (TBL)			
6	Best method for developing critical thinking skills?	23 (88.46%)	3 (11.54%)
7	The most important question that lecturers ask themselves when planning activities and exercises for a new lecture	13 (50%)	13 (50%)
8	Most significant benefit in developing 21st century skills for learners in team-based learning	18 (69.23%)	8 (30.77%)
9	The Readiness Assurance Test in team-based learning (TBL)	17 (65.38%)	9 (34.62%)
10	Classic progress of activities in team-based learning (TBL)	1 (3.85%)	25 (96.15%)
Case-based learning (CBL)			
11	Bloom's Taxonomy	8 (30.77%)	18 (69.23%)
12	Is the following teaching process and evaluation true or false for case-based learning	15 (57.69%)	11 (42.31%)
13	Important factors in developing clinical cases	4 (15.38%)	22 (84.62%)
14	Evaluation methods that can use cases	22 (84.62%)	4 (15.38%)

No	Question	Frequency of correct answers n (%)	Frequency of wrong answers n (%)
15	Essay content evaluation using cases	21 (80.77%)	5 (19.23%)
Debriefing technique in simulation training			
16	Adults' learning characteristics	10 (38.46%)	16 (61.54%)
17	Kolb's experiential learning cycle	6 (23.08%)	20 (76.92%)
18	Purpose of debriefing in simulation training	12 (46.15%)	14 (53.85%)
19	Criteria for executing a debrief	12 (46.15%)	14 (53.85%)
20	Application of specific debriefing technique	11 (42.31%)	15 (57.69%)
Peer support			
21	Definition of peer assisted learning model	15 (57.69%)	11 (42.31%)
22	Student activities in peer assisted learning model	7 (26.92%)	19 (73.08%)
23	Definition of peer mentoring model	6 (23.08%)	20 (76.92%)
24	Definition of peer tutoring model	9 (34.62%)	17 (65.38%)
25	Core value of peer mentoring model	0	26 (100%)
Total score of correct answers		Mean (SD) 12.35 (2.80)	Min - Max 9 - 19

Table 1 demonstrated how the participants answered each question regarding teaching methods that were presented throughout the training program. The general understanding of positive teaching and technological applications in education was relatively good with approximately 53.85% to 92.31% of lecturers answering relevant questions accurately. Similarly, the sufficient knowledge of lecturers on the topic of team-based learning (TBL) was satisfactory considering over 50% of lecturers all chose the correct answers, with the conspicuous exception of the question concerning the process of team-based learning activities for which only one participant got the right answer. For the set of questions under the theme of case-based teaching, the majority of the lecturers gave incorrect responses to questions related to Bloom's Taxonomy (69%) and developing quality clinical cases (85%). Most of the participants were also incorrect on questions concerning the debriefing techniques in simulation training and peer support (from 66% to 100%).

4. DISCUSSION

From the pre-test results of the project, it was evident that the teaching methods under the 05 topics were relatively new to the nursing lectures, taking into consideration that none of the lecturers had more than 80% of the answers correct. For some parts,

these results truly reflected the obtained average score on the evaluation of the learning environment from the previous study, where teaching methods were one of the criteria [2]. Another study of ours at a nursing educational facility has suggested that many nursing students do not have a

positive evaluation on the teaching methods of lecturers, especially during the Covid-19 pandemic when traditional learning modes transition completely into online learning. Although the hit from the pandemic is an unexpected external factor, lecturers and the schools have not shown great preparation for the remodeling of teaching environments into the online space. For this reason, emphasizing training for nursing lecturers on online and hybrid teaching have paramount consequences for the broader domain of nursing education during the pandemic.

As can be seen from the results, despite understanding the definitions and principles of TBL and CBL, the lecturers encountered certain struggles in implementing specific activities of these approaches. This implies that the lecturers have yet to be able to effectively incorporate TBL and CBL in daily teaching practices. TBL was only introduced in nursing education in Vietnam these past few recent years and the requirements of small group distribution and coherent lecture structures also posed a challenge to lecturers and educational institutions [4]. CBL and its evaluation have been in the progress of being standardized in the training program for clinical lecturers organized by the Ministry of Health since 2021 under the theme of clinical teaching methods in the health sciences field [5]. The purpose of implementing these two methods is to provide the means and knowledge necessary to apply the student-centered teaching model in order to encourage students to adopt problem-solving and critical-thinking skills. However, it is evident that there exists certain limitations in the application of TBL and CBL in nursing education that needs to be addressed in future studies. This issue demonstrates the need to organize

more seminars sharing the knowledge and experience in implementing these teaching methods within the nursing community, as well as encouraging the lecturers to pick up these methods in their teaching. The use of these two methods can drastically improve the critical thinking skills and academic performance of students [6].

Most lecturers answering questions on the debriefing method and peer support incorrectly indicating that these two approaches are still unfamiliar concepts for educators in Vietnam. However, simulation training or teaching nursing skills through simulated scenarios were not new in nursing education. Before performing procedures on real patients, students are required to practice nursing skills in simulation in order to ensure that any slip-ups do not cause harm to the patients [7]. However, understanding and implementing the debriefing require comprehension of Kolb's experiential learning cycle, single-loop theory and structure-based debriefing, which are still receiving insufficient attention. At nursing educational facilities, simulation training mostly involves practicing nursing skills on models or simulated patients. In these sessions, lecturers explain the technical parts of the lesson and students practice in groups before taking an evaluation test at the end of the lecture. At the end of the session, lecturers then give comments and conclude the lesson [2]. The execution of discussing and debriefing techniques still largely depends on individual lecturers and has yet to have a consistent framework to follow. The results suggest a critical demand for the organization of simulation classes on teaching methods for lecturers, especially for structure-based debriefing. These skills can help lecturers take advantage of the simulation training, from which they can

enhance the skills, behavior and perceptions of students before their clinical placements.

Peer support models are still unfamiliar in the context of Vietnamese nursing education. Many countries around the world have successfully incorporated this model in medical training, including the USA, Australia, New Zealand, Canada and Hong Kong [9][10]. With the peer support program, students have the opportunities to seek support and receive advice not only on academic issues but also on mental health, life experience, and social skills from their peers or their seniors who have once been in the same situations. These counseling sessions are carried out through personal sharing of experience, knowledge, and skills [11]. Our ongoing study at a nursing school also suggests that student support services, especially in academic issues are still lacking in many aspects. This partly explains why the evaluation results of lecturers on the peer support model are still considerably low.

The results of this study have demonstrated the initial assessment of lecturers on teaching methods. However, our sample was limited to lecturers that have participated in the training program, due to the scope and budget of the project. For this reason, it is suggested that future studies implement research on a larger sample in order to have a more holistic view of the teaching methods of nursing lecturers, which would contribute to the development of more appropriate training programs for the entirety of nursing lecturer community in Vietnam.

5. CONCLUSION

Our initial results demonstrated that the acquired knowledge on teaching

methods remains insufficient which further emphasizes the importance of the implementation of training programs for lecturers. The study possesses high applicability in the execution of training seminars, pilot teaching and a combination of qualitative and quantitative evaluation on reformed teaching techniques in nursing education. Under the framework of the project, only 5 nursing educational institutions have been involved so far and hence we aim for the training program on teaching strategies to extend its reach to many other training facilities in Vietnam in the foreseeable future.

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