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TEACHING STRATEGY: STRENGTH AND LIMITATION OF TEACHING STRATEGIES FOR NURSING EDUCATION VIA LECTURE AND SIMULATION

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ABSTRACT

The purpose of this article is to discuss the strengths and limitations of two teaching strategies currently utilized in Diploma in Nursing, in Malaysia. The diploma was started in 1994 with a 3 years duration of study. It also requires certificates of qualification from the Malaysian Quality Agency (MQA) and the Malaysian Board of Nursing.

Teaching strategies of individual teachers differ according to their teaching styles and generalized lesson plans, which include structures, instructional objectives, outlines of teaching and learning tactics, and other accessories needed to implement the strategies. A strategy does not necessarily follow a single track all the time, but changes according to the demands of the situations such as the age, level, needs, interests and abilities of the students. Thus, strategy is a method that is more comprehensive. It is directional in nature and refers to the goal oriented activities of the teacher. Hence, it resembles science rather than arts.

Lecture and simulation methods are the best teaching strategies for nursing students in Malaysia. The lecture method allows clarification on difficult concepts, organizes thinking, and promotes problem solving attitudes, whereas simulation provides students with the opportunity for proper social, emotional and intellectual development. Moreover, students are highly motivated by educational simulation, for they enjoy the learning process while participating in it.

Keywords: Teaching strategy, lecture, simulation, knowledge of students, strategy

INTRODUCTION

Selection of teaching strategies is a fundamental component of instructional design. The goal is to promote deeper processing of information. Therefore, it is very important to design a teaching strategy based on students learning styles, defined by the ways individuals perceive, interact with and make judgments about the learning environment (Johnson and Mighten, 2005). Futhermore, Rochmawati and Wiechula (2010) state that several education strategies need proper implementation by health professionals as educators to nurture their students clinical reasoning skills. Two teaching strategies used for students of Diploma in Nursing, in Malaysia are lecture and simulation. These teaching strategies are mixed techniques, aimed at reinforcing and enhancing the learning process among the students.

TWO TEACHING STRATEGIES

Lecture

Lecture is one of the oldest and by far the most widely used methods of teaching (Johnson and Mighten, 2005). According to Laing (1996), "lecture", dating back to the mid-19th century, is a teaching strategy for large groups. Moreover, lecturing is the most common teaching strategy in adult education (Quinn and Hughes, 2007). The method of lecture requires that the lecturer performs preparation before the start of teaching. In preparation for lecturing, the lecturer must prepare thoroughly for the presentation, plan the lecture in some details, select appropriate examples and anecdotes, choose a variety of illustrations to contribute to the learners' understanding of the content, check the equipments to be used prior to the lecture, try out the visual aids to ensure that everyone in the room are able to see them, and plan the summary carefully to help learners focus on significant points of the lecture. Then, during presentation, a lecturer must begin with a short introduction, identifying objectives of the session and providing an overview of what will be covered in the lecture, emphasizing priority content, listing key points, involving the learners whenever feasible, showing enthusiasm for the subject, changing the pace and tone of voice at intervals, and evaluating the lecture as soon as possible after the session ends (Cooper,

2003).

Simulation

Simulation is defined as a "near representation of an actual life event; may be presented by using computer software, role play, case study or games that represent reality and actively involve learners in applying the content of the lesson" (Shepherd *et al.*, 2010). Therefore, simulation is one way to promote understanding through "doing". Currently in Malaysia, the number of students has increased but there aren't sufficient clinical placements and patients to cater to their teaching and learning activities (Wilford and Doyle, 2006). Consequently, simulations are designed to encourage active participation in the learning process, thereby, allowing students to construct knowledge, explore assumptions, and develop psychomotor skills in a safe environment (Sinclair and Ferguson, 2009). Simulation uses a set of cognitive, psychomotor, and psychosocial skills, which is challenging for novice students. (Kardong-Edgren, Starkweather & Ward, 2008). For example, simulations are set up for students to assess pain and decide on the amount, type, and route of pain medication and blood products that can be administered (Waldner and Olson, 2007). Hence, such instructional activities require the learners to apply knowledge more effectively in multiple situations, with a higher order of thinking and skills (Kardong-Edgren, Starkweather and Ward, 2008).

DISCUSSION

The advantage of lecturing method is the expansion of students' knowledge, whereby more illustrations and explanations can be provided to them by the lecturers. Besides that, lecture is an efficient way of teaching large groups of students (Quinn and Hughes, 2007) and is also effective in covering a significant amount of content (Cooper, 2003). Therefore, lecturing method is appropriate for continuing education, by combining it with a variety of teaching tools such as transparencies, slides, and flip charts. Moreover, a properly prepared and presented lecture serves as a clear guide to instruct, clarify, explain, interpret, and inspire students (Cooper, 2003). This situation is well present in a good lecturing method that increases students' motivation for learning (Quinn & Hughes, 2007).

Furthermore, lecturing method also has the potential to clarify difficult concepts, organize thinking, promote problem solving, and challenge attitudes (Leonardi, 2007). Thereby, it enables the lecturer to deliver the content efficiently. An effective lecture requires significant preparation time, so that the teachers can integrate the subject matter better than the students (Quinn and Hughes, 2007). In addition to this, lecturing method is good for introducing a new topic to a student's cohort, be that junior or senior.

Moreover, the lecturer can demonstrate the process of organizing and using information effectively via technology and visual representations. Slides and computer based presentation programs lend a more polished appearance; whereas, at times seeing the lecturer construct relationships on white board has a greater effect. Moreover, the lecturer can facilitate the learning process (Leonardi, 2007) by imparting new knowledge that is not yet published in textbooks (Quinn & Hughes, 2007). A reframing of the lecture method from a strictly one-way communication procedure can also ensure greater engagement of the learners in the learning process (Leonardi, 2007). Consequently, lecture method proves to be useful for setting up a framework, upon which the students are encouraged to build (Quinn & Hughes, 2007).

However, lecture method also faces some limitations. For instance, if a lecture is poorly delivered, it can be insipid and boring, wasting the time of both learners and teachers (Cooper, 2003) and causing the students' attention to wane (Quinn & Hughes, 2007). Furthermore, Leonardi (2007) states that this method lacks opportunities for individual feedback to learners and independent learning, for the students are largely passive in the classroom (Quinn & Hughes, 2007).

Moreover, educators may "teach the wrong learner" or in other words mismatch the method with the learner, by failing to use a variety of approaches. This is because lectures do not cater to every individual student's needs (Quinn & Hughes, 2007) and hence, they are obliged to obtain material from 'second-hand' rather than primary sources (Quinn & Hughes, 2007). Alongside this, the teacher's bias may also be evident (Quinn & Hughes, 2007). These factors cause the students to lose motivation in learning. Additionally, as a strictly one-way communication procedure, lecture fails to apply the principles of good education practice and information transmission, whereby the information

flows so rapidly that much of it tends to miss its destination (Leonardi, 2007), for some of the lecturers do not adjust their pace according to the comfort of all the pupils (Quinn & Hughes, 2007). Naturally, this causes the students to be unable to follow what is being taught and makes it difficult for them to study.

There are myriads of advantages of simulation practice for nursing students. Simulation helps students to identify cues based on clinical presentation, facilitates pattern recognition in a safe environment, enables the development of the learners' emotional involvement and strenghtens their confidence (Sarver, Senczakowicz & Slovensky, 2010), and encourages the students to learn better in an active learning session (Kardong-Edgren, Starkweather and Ward, 2008). Simulation at the advanced beginner level requires learners to start applying protocols guiding their actions. This includes the high-fidelity human patient simulators that have the ability to show the consequences of actions in most cases (Waldner and Olson, 2007). Simulation improves knowledge, critical thinking, and self-efficacy among students and aids them in passing the paper and pencil exam at the end of the semester (Kardong-Edgren, Starkweather & Ward, 2008). Moreover, students, who participated in a simulation session with standardized patients, scored higher in the written and performance tests than those who didn't participate (Waldner & Olson, 2007).

Furthermore, simulations are highly beneficial as simulation improved students' confidence and perceived skill in communication in potentially difficult acute care situations Grady *et al.*, (2008); Rosenzweig *et al.*, (2008). state that the responsiveness and realism provided by the high-fidelity mannequin would foster improved learning of the nursing procedures, leading to higher performance scores. The effect of simulator fidelity level on training effectiveness is an important and salient issue, especially in light of the financial and workload costs imposed by high-fidelity simulators. Simulation encourages students to be able to engage in the same critical thinking and clinical decision-making skills required in actual clinical practice (Sinclair & Ferguson, 2009). This enables the students to improve through active learning their cognitive and psychomotor skills for the promotion of teamwork and communication which, in turn, increases their confidence and self-efficacy (Sinclair & Ferguson, 2009). This is because simulation provides an experiential learning that addresses the overarching realms of health (physical, psychological, spiritual, and environment) within the context of the patient and his/her family, which is proposed to be the ideal way to enhance the integration of the skill (Kardong-Edgren, Starkweather & Ward, 2008).

Krautscheid, Kaakinen & Warner (2008) found that study simulation is a powerful and safe strategy that effectively facilitates learning in a clinical setting. Students give positive feedback to simulation because they were able to perform mock emergency better than other novice nurses (Curtin & Dupuis, 2007). Therefore, the learning outcomes are better in simulation teaching than traditional teaching (Ling *et al.*, 2008). Simulation also allows multiple learning objectives to be accomplised in a realistic clinical environment without harming the patients. Students are exposed to a realistic situation that could be both community and hospital based (Wilford & Doyle, 2006). Additionally, simulation teaching provides a safe and controlled learning environment, whereby, students can practice, either under direct supervision or independently, some specific skills such as inspection, percussion, palpation, auscultation, intravenous therapy, catheterization, wound care, nasogastric intubation, aseptic dressing techniques and intramuscular injections (Ling *et al.,* 2008). Therefore, this teaching strategy has the potential to bring about a slight improvement in psychomotor scores (Shepherd *et al.,* 2010). Furthermore, simulation enables the students to overcome the fear of harming a living patient. The pressure to perform quickly and efficiently without committing mistakes lessens as students repeat the skills as many times as needed. Furthermore, the simulation laboratory is a controlled environment free from any distraction and interruption. This situation encourages students to interact as a group, promoting teamwork, a skill required in the workplace (Brewer, 2011).

However, simulation has some limitations in implementation, either by the lecturer or students (Sarver, Senczakowicz and Slovensky, 2010). Limitations of simulation method are lack of time, resources, and technical ability. These are consistently the reasons for not adopting the use of high fidelity mannequins and simulation equipments (Kardong-Edgren, Stark weather & Ward, 2008).

CONCLUSION

Lecture and simulation methods are the best teaching strategies for nursing students in Malaysia. These good strategies will influence the quality of information delivered to students either via theory or skills. Nurse educators must adapt to the measures that are suggested to be the most effective in meeting the educational needs of students (Johnson & Mighten, 2005). Therefore, lecturers must not only increase their awareness of such teaching practices in the classroom environment, but also evaluate the effectiveness of respective teaching strategy used for teaching students. Therefore, nurse educators must be experts in delivering knowledge and skill to nursing students in their respective fields.

RECOMMENDATION

Globally, nursing education is challenging and requires very high adaptation to get better results. It requires up-to-date knowledge and evidence-based practice, needed to support its planning and implementation by the educators. Therefore, professional development in the domain of nursing is essential to empower the lecturer as an educator. Studies have shown that experience and knowledge about education influences the lecturer to formulate strategies condusive to the achievement successful teaching outcomes. The following recommendations are aimed at improving and empowering the lecturers in designing their teaching strategies.

As a nurse educator, the lecturer must have knowledge of various evaluation methods and the appropriateness of each method. As documented by Beers (2005), they must also consider the learning needs of the students and the resources available. Furthermore, nurse educators' need to shoulder responsibilities and weigh all of the available information while taking decisions about classroom practice. The following processes are designed to help educators in preparing and delivering lectures that promote students' learning, rather than simply providing passive lectures to them. Step 1, the lecturer must be able to plan and receive mentorship from the senior lecturer. Step 2, dress rehearsal (a live rehearsal of a planned lecture before an audience, mentors and other residents is essential for a variety of reasons) is necessary. Step 3, presentation delivery (use of active-learning strategies throughout the lecture) will not only help students to focus and identify key points, but also enables them to get a sense of the format of the test questions. Step 4, learning from feedbacks (from students, mentors, fellow residents, and self-reflection) is essential. Step 5, repetition and refinement (revisiting the archived feedbacks from lecture observers and students before delivering the lecture a second time in order to find ways of improvement) is needed. Based on these steps, hopefully the educators will be able to improve their lecturing methods, thereby, facilitating the teaching and learning process (Medina & Herring, 2011).

Today, lecturers must know that simulation is important to nursing students because of the fast changing requirements of the time. Therefore, new approaches and strategies for teaching incorporate critical thinking, assessment, communication, and technical skills, required to meet the demands of the new roles and responsibilities faced by nurse educators and students. Simulation enables educators to address the learning needs of students by exploring the advantages of high-fidelity simulations, and provides the learners with the skills necessary for competent care (Sarver, Senczakowiz & Slovensky, 2010). Moreover, nursing educators agree that simulations can expose students to a variety of practical learning situations, fostering the development of knowledge and skills in their daily lives (Waldner & Olson, 2007). However, to develop a simulation program, the lecturer must evaluate the quality of the scenarios, which must then be designed and integrated into the curriculum (Curtin & Dupuis, 2007). A well designed simulation will influence the junior students to attain superior learning outcomes and grades (Kardong-Edgren, Starkweather & Ward, 2008). Besides that, the lecturer using simulation method must know that the total number of hours used for simulation-based learning should be increased, so that the students would have more frequent exposure to simulation training. Therefore, the use of simulations strongly encourages the teachers to adopt the idea of "Teach Less Learn More" (Vivien *et al.,* 2010).

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