



New Trends and Issues Proceedings on Humanities and Social Sciences



Volume 4, Issue 2 (2017) 253-256

ISSN 2421-8030

www.prosoc.eu

Selected Papers of 1st International Congress on Nursing (ICON-2017) 16 – 18 March 2017 Grand Park Lara Convention Center, Lara – Antalya, Turkey

The effect of simulator use on students' skill enhancements

Seda Karacay Yikar^{a*}, Department of Nursing, Faculty of Health Sciences, Cukurova University, 01000, Adana, Turkey.

Evsen Nazik^b, Department of Nursing, Faculty of Health Sciences, Cukurova University, 01000, Adana, Turkey.

Sevgi Deniz^c, Department of Nursing, Faculty of Health Sciences, Cukurova University, 01000, Adana, Turkey.

Suggested Citation:

Yikar, K. S., Nazik, E. & Deniz, S. (2017). The effect of simulator use on students' skill enhancements. *New Trends and Issues Proceedings on Humanities and Social Sciences*. [Online]. 4(2), pp 253-256. Available from: www.prosoc.eu

Selection and peer review under responsibility of Prof. Dr. Nesrin Nural, *Karadeniz Technical University*, Turkey
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Abstract

Nursing education is a training that requires many cognitive and psychomotor skills to be given to the students. Especially, it is expected that students should do every application skillfully before going out to hospital practice. This study was carried out in order to determine the effect of simulation usage on nursing skill development. This work is a review. There are many advantages to using the simulation in nursing education. These; critical thinking, clinical decision-making and problem-solving skills, a specific situation, skill in simulated education and a case example case can be revitalized versatile. Thus, it is possible to provide students with active learning opportunities to create coherent and comparable experiences; Help students integrate knowledge and skills. Through simulation laboratories, students develop their practice and as a result, mistakes they may make can be reduced.

Keywords: Simulation; nursing education; skill development in nursing.

* ADDRESS FOR CORRESPONDENCE: **Seda Karacay Yikar**, Department of Nursing, Faculty of Health Sciences, Cukurova University, 01000, Adana, Turkey.

E-mail address: sedakrcy@hotmail.com / Tel.: +90 322 338 64 84

1. Introduction

Today, there is a rapid change and development in the field of science and technology. Education is one of the most important factors in the development of these changes and developments that facilitate human life. Education is basically a behavior change event. Within the training process, these behavior changes are carried out using some training techniques and methods (Ayhan, 2012). In the education system, it is difficult to reach high-level goals such as the development of creative thinking in the students and the transformation of the skills into traditional methods such as demonstration. For this reason, it has become a necessity to go beyond traditional methods in education (Kokdemir, 2012). It is aimed to provide behavioral change at the cognitive, emotional and psychomotor levels in the student while giving theoretical and practical education together (Taskin, 2010). The skills and practices developed in preclinical and clinical settings in nursing education are important in terms of transferring the theoretical knowledge learned in classroom environment to practice. Clinical education provides opportunities for students to transfer knowledge, skills and attitudes they have learned in the classroom environment to patient care. Nursing students need to improve their clinical competence in a virtual or laboratory setting before the actual patient care environment (Terzioglu, 2012). The simulation used to provide proficiency and competence in learning is a technique or tool that is used to create the properties of the real world (Durmaz-Edeer & Sarikaya, 2015).

There are many advantages to using the simulation in nursing education. These; the clinic environment can be animated in real life; Critical thinking, clinical decision-making and problem-solving skills; A specific situation / skill in simulated education and a case example case can be revitalized versatile. Thus, it is possible to provide students with active learning opportunities to create coherent and comparable experiences; Help students integrate knowledge and skills. During the learning process reduce misapplications in real life and improve safe patient care by creating a chance to repeat until the truth is made (Durmaz-Edeer & Sarikaya, 2015). Simulation keeps them from developing hand skills, allows them to be more cautious about the illness and offers unique opportunities for risk assessment (Ennen & Satin, 2010).

The use of scenario / computer simulation training to prepare student nurses in clinical practice in Turkey is a very new approach and there are few studies in which relevant experience and outputs are shared. However, there have been a number of studies on the use of scenario / computer simulation in nursing education abroad. In the study of Terzioglu and his colleagues, in general, the students stated that the skill development applications given in the laboratory environment before they went to the clinical center were useful to them. The students indicated that the case and video demonstrations provided in the classroom provided the theoretical knowledge and were pleased with it. Students also compared the use of models with the use of simulation laboratories, and as a result, they found that there was no reaction in the models and therefore they did not understand whether the patient's heart was burning (Terzioglu, 2012). Considering the effect of simulation on the skill development of students, a simulation simulation pant named PRONTO which will be used in the intervention of obstetric and neonatal emotions made by Walker et al. (2012) was developed and developed and birth and postpartum period applications were made. PRONTO is a simulation tool designed at low cost and in technology. But it is a vehicle with high effectiveness. In the study, team work performance was also evaluated by taking medicine and nursing students together. In Brady et al.'s (2014) study, the efficacy of the technical skills of midwifery students was evaluated on simulation.

The efficiency of the constructed applications is classified as low-medium-high accuracy. Practices made by students were evaluated as pre-test and post-test results were high at each classification level. Pok-Ja, Jeon and Koh (2015) simulate nursing education in a metaanalysis study evaluating the skills that should be applied in nursing education. Theoretical knowledge about applications, critical thinking skills, communication ability sub-titles. The efficiency was higher when the simulation training for a title was given.

In Gerolemou et al. (2014), the ability of the nurse to apply sterile techniques in the central ven catheterization procedure was evaluated. Six basic elements were used for the catheterization criteria and the skills of the students were evaluated. As a result of the study, students who received training in simulation were found to be more successful in applying these techniques in clinics. In addition, there was a decrease in the rate of infection after the simulation training. In Teixeira et al. (2015) study, the effect of simulated nursing students on cognitive development and decision making processes was evaluated. The anxiety of the students who received training in simulation decreased. The students were very satisfied with the simulation training and emphasized that this training made it easier to keep the information in mind and to implement steps. Collaborative and interprofessional interaction is important in delivering effective care to the patient (Watters et al., 2015) Nurses, doctors, doctors and other health professionals work in cooperation with each other during simulation training (Cooper et al.,2012). The study of Ballangrund, Persenius, Hedelin and Hall-Lord, (2014) it was determined that the use of simulation increased in leadership, problem solving, awareness, use of resources and cooperation in nursing students. Wang, Shi, Bai, Zheng and Zhao (2015) conducted studies on the effects of simulation training in the interventions of the nurses in the room of the operating room for the effects of nursing students and medical students on the cooperation between the professions; It was observed that the students who were studying the simulation worked better in the collaborative understanding than the ones who did not study. Nursing education curricula are very comprehensive and have many subject content. In addition, inter-sectoral curricula such as health and nursing have been developed in recent years. However, from the literature perspective, the situations in which students can effectively use them are still limited (Bolesta & Joyce, 2014) The use of simulation in nursing education is being used for the purpose of teaching information such as frequently used for general application purposes, teaching simple and complex technical skills, communication skills, team work and clinical decision making process (Sendir, 2013).

The use of simulation in nursing education is being used for the purpose of teaching information such as frequently used for general application purposes, teaching simple and complex technical skills, communication skills, team work and clinical decision making process. Simulation laboratories allow students to develop their practice, be more confident and open to collaborative work, and reduce the mistakes that students will make.

Acknowledgement

We thank all those who participated in this study.

References

- Ayhan, A. (2002). *Science-technology and future technologies in Turkey from past to today*. Istanbul: Beta Publishing.
- Ballangrud, R., Persenius, M., Hedelin, B. & Hall-Lord, M. L. (2014). Exploring intensive care nurses' team performance in a simulation-based emergency situation, – expert raters' assessments versus self-assessments: an explorative study. *BMC Nursing*, 13(1), 47-56.
- Bolesta, S. & Chmil, J. V. (2014). Interprofessional education among student health professionals using human patient simulation. *American Journal of Pharmaceutical Education*, 78(5), 1-9.
- Brady, S., Bogossian, F. & Gibbons, K. (2015). The effectiveness of varied levels of simulation fidelity on integrated performance of technical skills in midwifery students—A randomised intervention trial. *Nurse Education Today*, 35(3), 524-529.
- Cooper, S., Cant, R., Porter, J., Bogossian, F., McKenna, L., Brady, S. & Fox-Young, S. (2012). Simulation based learning in midwifery education: a systematic review. *Women and Birth*, 25(2), 64-78.
- Durmaz-Edeer, E. & Sarikaya, A. (2015). Use of simulation in nursing education and simulation variety. *Journal of Nursing Education and Research*, 12(2), 121-125.
- Ennen, C. S. & Satin, A. J. (2010). Training and assessment in obstetrics: The role of simulation. *Best Practice & Research Clinical Obstetrics & Gynaecology*, 24(6), 747-758.
- Gerolemou, L., Fidellaga, A., Rose, K., Cooper, S., Venturanza, M., Aqeel, A. & Khouli, H. (2014). Simulation-based training for nurses in sterile techniques during central vein catheterization. *American Journal of Critical Care*, 23(1), 40-48.
- Kokdemir, D. (2012). Critical thinking and science education. *Pivolka*, 21, 1-10.
- Oh, P. J., Jeon, K. D. & Koh, M. S. (2015). The effects of simulation-based learning using standardized patients in nursing students: a meta-analysis. *Nurse Education Today*, 35(5), 6-15.
- Sendir, M. (2013). Use of simulation in women's health nursing education. *Florence Nightingale Hemsirelik Fakultesi Dergisi*, 21, 205-12.
- Taskin, L. (2010). The influence of the training model applied by using the checklist in the women 's health nursing course on students' anxiety. *Journal of Research and Development in Nursing*, 2, 51-58.
- Teixeira, C. R. D. S., Pereira, M. C. A., Kusumota, L., Gaioso, V. P., Mello, C. L. D. & Carvalho, E. C. D. (2015). Evaluation of nursing students about learning with clinical simulation. *Revista Brasileira de Enfermagem*, 68(2), 311-319.
- Terzioglu, F. (2012). Opinions of nursing students related to simulation method health. *Sciences Faculty Nursing Journal*, 1, 16-23.
- Walker, D., Cohen, S., Fritz, J., Olvera, M., Lamadrid-Figueroa, H., Cowan, J. G & Fahey, J. O. (2014). Team training in obstetric and neonatal emergencies using highly realistic simulation in Mexico: Impact on process indicators. *BMC Pregnancy and Childbirth*, 14(1), 367-378.
- Wang, R., Shi, N., Bai, J., Zheng, Y. & Zhao, Y. (2015). Implementation and evaluation of an interprofessional simulation-based education program for undergraduate nursing students in operating room nursing education: a randomized controlled trial. *BMC Medical Education*, 15(1), 115-122.
- Watters, C., Reedy, G., Ross, A., Morgan, N. J., Handslip, R. & Jaye, P. (2015). Does interprofessional simulation increase self-efficacy: A comparative study. *BMJ Open*, 5(1), 1-8.