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The Effectiveness of a Nursing Simulation-Based Learning Program on Students' Competence and Learning Satisfaction

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Purpose: The purpose of this study was to evaluate the effects of a simulation-based learning program on nursing students' perception of their competence and learning satisfaction.

Methods: A quasi-experimental control pre-test and post-test design was used. A convenience sample of 108 sophomores in a nursing department of a technological university were recruited at the end of the year. The experimental group ($n = 42$) was enrolled in four simulation-based courses, including medical-surgical nursing simulation lab, obstetric-pediatric nursing simulation lab, psychiatric nursing and public health nursing lab, and comprehensive nursing simulation lab in the third year of college while the control group ($n = 66$) was not. A nursing competence scale, a learning satisfaction scale that developed by the authors were used to evaluate the effectiveness of the program. Data were analyzed using IBM SPSS Statistics Base 22.0 for windows. The paired t-test and repeated measured ANOVA were conducted for data analysis.

Results: Three students participated in the experimental group were dropped out after they finished the two courses of the first semester in the third year. The others finished all the courses. Compared with the control group, the experimental group had significant higher scores of fundamental nursing skill test ($F = 9.78, p = .002$) and adult nursing skill test ($F = 9.22, p = .003$). In addition, the experimental group had higher scores in medical-surgical nursing practicum ($F = 4.50, p = .036$), obstetric nursing practicum ($F = 8.82, p = .004$), psychiatric nursing practicum ($F = 4.59, p = .034$), and public health nursing practicum. Moreover, the experimental group had higher perceived competence, learning satisfaction and passing rate of Professional and Technical Examinations of a registered nurse than control group did.

Conclusion: The simulation-based learning program was effective to improve nursing students' perception of their competence and learning satisfaction. Future research should continue to explore the effects of the program with larger and more diverse samples.

Title:

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Keywords:

learning satisfaction, nursing competence and simulation

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Abstract Summary:

Compared with the control group, the experimental group had significant higher scores of adult nursing skill test and fundamental nursing skill test, learning satisfaction, and higher passing rate of Professional and Technical Examinations of a registered nurse.

Content Outline:

1. Purpose
2. Methods
3. Results
4. Conclusion

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