Comparative analysis of two venipuncture learning methods on nursing students | 1


Abstract:
INTRODUCTION: Venus cannulation is one of the main nursing actions. For the safety of patients and nurses, this skill is important to be performed in a proper and responsible way. Thus, the need for adequate education on this skill is essential.

STUDY OBJECTIVE: Comparison between the 4-stage (demonstration, deconstruction, comprehension, performance) learning method and the simplified 2-stage method (deconstruction, performance) on venous cannulation.

METHODS: The study took place from November 2011 to March 2012. In total, 117 students of the Nursing Department of Technological Educational Institute of Athens were randomized into two education groups of the 2- (Group A) and 4- (Group B) stage method respectively. Students of both groups were assessed during training and 45 days later for skill retention. For the assessment of all students, a check list with the steps required to venous cannulation was used. The time to complete the process was also assessed.

RESULTS: Group A included 54 students and Group B 50 students. During initial training, the average time to complete the process without any errors was lower for Group A compared to Group B (1.77±0.12min vs. 2.33±0.13min, p=0.006). Regarding the appropriate steps for venous cannulation, Group A made fewer errors compared to Group B (0.95±0.95 vs. 1.38±1.10, p=0.021). In addition, Group A omitted more steps than Group B (0.29±0.06 vs. 0.11±0.05, p=0.042). During skill retention assessment, no significant difference was observed in the number of incorrect steps or in the number of omitted steps between groups.

CONCLUSION: According to our findings, the 4-stage method, is associated with less omitted steps, while the 2-stage method, is associated with less time required to complete the procedure and less errors during performance, at initial stages. However, skill retention does not seem to be associated with the type of the educational methodology.

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