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#### **Title:**

Effects of two teaching strategies on the relationship between nursing students' self-efficacy and performance in BLS/AED.

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**Purpose:** Nurses and nursing students are often first responders to in-hospital cardiac arrest events; thus they are expected to perform Basic Life Support (BLS) and use an Automated External Defibrillator (AED) without delay. The aim of this study was to explore the relationship between nursing students' self-efficacy and performance before and after receiving a particular training intervention in BLS/AED.

**Materials and methods:** Explanatory correlational study. 177 nursing students received a 4-hour training session in BLS/AED after being randomized to either a self-directed (SDG) or an instructor-directed teaching group (IDG).<sup>1</sup> A validated self-efficacy scale, the Cardiff Test and Laerdal SkillReporter<sup>®</sup> software were used to assess students' self-efficacy and performance in BLS/AED at pre-test, post-test and 3-month retention-test. Independent *t-test* analysis was performed to compare the differences between groups at pre-test. Pearson coefficient (*r*) was used to calculate the strength of the relationship between self-efficacy and performance in both groups at pre-test, post-test and retention-test.

**Results:** Independent *t-tests* analysis showed that there were non-significant differences (*p*-values>0.05) between groups for any of the variables measured. At pre-test, results showed that correlation between self-efficacy and performance was moderate for the IDG (*r*=0.53; *p*<0.05) and the SDG (*r*=0.49; *p*<0.05). At post-test, correlation between self-efficacy and performance was much higher for the SDG (*r*=0.81; *p*<0.05) than for the IDG (*r*=0.32; *p*<0.05), which in fact was weaker than at pre-test. Finally, it was found that whereas the correlation between self-efficacy and performance increased from the post-test to the retention-test to almost reach baseline levels for the ILG (*r*=0.52; *p*<0.05), it slightly decreased in this phase for the SDG (*r*=0.77; *p*<0.05).

**Conclusion:** Student-directed strategies may be more effective than instructor-directed strategies at promoting self-assessment and, therefore, may help to improve and maintain the relationship between nursing students' self-efficacy and actual ability to perform BLS/AED.

#### **References:**

1. Hernández-Padilla JM, Suthers F, Granero-Molina J, Fernández-Sola C. (2015). Effects of two retraining strategies on nursing students' acquisition and retention of BLS/AED skills: a clustered randomized trial. *Resuscitation*, 93, 27-34. doi: 10.1016/j.resuscitation.2015.05.008.