



The aim of this study was to compare the effectiveness in reducing pain during peripheral intravenous catheterization of coughing, blowing into a spirometer and squeezing a stress ball” Yılmaz and Güneş (2017).

Abstract:

**AIMS AND OBJECTIVES:** The aim of this study was to compare the effectiveness in reducing pain during peripheral intravenous catheterization of coughing, blowing into a spirometer and squeezing a stress ball.

**BACKGROUND:** Peripheral intravenous catheterization is widely performed by nurses; it causes pain and discomfort to patients.

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**DESIGN:** This was a single blind randomized controlled study.

**METHODS:** The sample of the study consisted of 120 males who came to donate blood. Before the peripheral intravenous catheterization, the individuals were divided by a simple randomization method into four groups: a coughing group, a blowing into a spirometer group,

a stress ball squeezing group and a control group. During the procedure, the pain levels felt by the individuals were assessed using the Visual Analog Scale by a nurse who was blinded to the procedure.

**FINDINGS:** The mean pain of the individuals in the coughing group was found to be 19.5 mm (SD: 13.6), that of the spirometer group was 28.3 mm (SD: 20.2), that of the stress ball group was 32.1 mm (SD: 23.8), and that of the control group was 45.5 mm (SD: 19.5). Statistical analysis showed a significant difference between the mean pain scores of individuals in the control group and those of individuals in the coughing, spirometer and stress ball groups.

**CONCLUSION:** The techniques of squeezing a stress ball, blowing into a spirometer and in particular coughing, depending on the potential mechanism of the Valsalva maneuver and diverting attention, are effective techniques in reducing the pain of peripheral catheterization procedures.

Reference:

Yılmaz, D. and Güneş, Ü.Y. (2017) The Effect on Pain of Three Different Nonpharmacological Methods in Peripheral Intravenous Catheterization in Adults. Journal of Clinical Nursing. October 27th. .

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