

Abstract**Original Article**

A New Distraction Intervention to Reduce Venipuncture Pain in School-Age Children: Different Colored Flashlights; An Experimental Study with Control Group

Fatma Guducu Tufekci, PhD

Associate Professor, Ataturk University Health Science Faculty, Erzurum, Turkey

Sibel Kucukoglu, PhD

Assistant Professor, Ataturk University Health Science Faculty, Erzurum, Turkey

Aynur Aytekin, PhD

Assistant Professor, Ataturk University Health Science Faculty, Erzurum, Turkey

Harun Polat, PhD

Specialist, Ataturk University Medical Faculty, Department of Medical Biochemistry, Erzurum, Turkey

Ebubekir Bakan

Professor, Ataturk University Medical Faculty, Department of Medical Biochemistry, Erzurum, Turkey

Correspondence: Fatma Guducu Tufekci Associate Professor, Ataturk University Health Science Faculty, Erzurum, Turkey E-mail: fgtufekci@mynet.com

Abstract

Background: There is now sufficient evidence to conclude that cognitive-behavioral interventions are effective in reducing pain and distress for many.

Aims: To assess the effect of a new distraction intervention, as a practical and cost effective approach to reduce perceived pain and stress during venipuncture in healthy school-age children.

Methods: The study was carried out as an experimental study with a control group. Children (N=144), in whom venipuncture was applied at a child blood collection unit for examination were included in the study. The data were obtained using a form to determine introductory features about the children, and the Wong-Baker FACES Pain Rating Scale and the visual analogue scale to evaluate the pain. For the data analysis, mean and percentage distributions, chi-square test, analysis of variance, and correlation analysis were used. The ethical principles were adhered to in all cases.

Results: Children's pain severity connected to venipuncture in the control group was higher than the three experimental groups. The difference between the groups was determined to be significant ($p>0.01$). Children's cortisol levels connected to venipuncture in the control group was higher than the three experimental groups. The difference between groups was determined to be insignificant ($p>0.05$). Only a low positive correlation was found between the cortisol levels and pain severity ($p<0.01$) in the children in the experimental and control groups. A negative moderate correlation was found between their ages and pain severity ($p<0.001-0.01$) in the experimental and control groups.

Conclusion: It was detected that a new distraction intervention using different colored flashlights effectively reduced the pain and stress related to venipuncture in healthy school children. Distraction intervention with different colored flashlights is a method that nurses will be able to use for venipuncture to obtain optimal pain and stress control.

Key words: Children, Distraction, Nursing, Pain