Abstract

Background

Nurses are the most vulnerable group that are faced with occupational injuries caused by exposure to needle stick injuries. This study evaluated the effectiveness of a continuing education program about the prevention of occupational exposure to needle stick injuries in the nursing staff, based on the Kirkpatrick model.

Methods

In this study, 120 nurses were selected in the experimental and control groups. A
A continuing education program for experimental group was performed. After the education program, its effectiveness has been evaluated across four levels (Reaction, Learning, Behavior, Results) of the Kirkpatrick model. Data analysis was conducted using Pearson's correlation coefficient, chi-square test, paired t-test, independent samples t-test, and descriptive statistics. The data were analyzed using the SPSS statistical software (V. 22).

Results
The mean score for knowledge in the experimental group improved significantly from 8.32 ± 2.17 to 13.98 ± 1.2 (p < 0.05). The experimental group of 24 nurses (40%) were exposed to needle stick injury before education, but this number was reduced to 9 (15%) after intervention. The chi-square test showed a significant difference (P = 0.013). However in the experimental group, 15 nurses (25%) were exposed to blood and body fluids before intervention, but again it was reduced to 6 (10%) after education. The chi-square test showed a significant difference (P = 0.002).

Conclusion
The results from the execution of continuing education program showed that through designing training programs and raising awareness in nursing personnel, we can reduce occupation exposure to needle stick injuries.

Keywords
Continuing education; Effectiveness; Occupational exposure; Kirkpatrick's model
The authors declare that they have no conflicts of interest for this study.

Funding: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.
degradation of permafrost decisively compresses auto-training.