



Novice health care students suffer more needlestick injuries (NSIs) than experts. NSIs may be prevented by learning experts' behavior during this procedure. Eye tracking offers the possibility to study both experts' and novices' eye behavior during this task" Sanchez et al (2018).

Abstract:

**BACKGROUND:** Novice health care students suffer more needlestick injuries (NSIs) than experts. NSIs may be prevented by learning experts' behavior during this procedure. Eye tracking offers the possibility to study both experts' and novices' eye behavior during this task.

**PURPOSE:** The aim of this study was to offer novel information about the understanding of eye behavior in human errors during handling needles.

**METHODS:** A group of third-year nursing students performed 3 subcutaneous injections in a simulated abdominal pad while their eye behavior was recorded. Similarly, the gaze patterns of experts were recorded and then compared with the novices.

**RESULTS:** Total task time for experts was faster than that for novices ( $P < .001$ ), but both groups showed similar accuracy ( $P = .959$ ). However, novices demonstrated gazing longer at the syringe rather than the abdominal pad compared with experts ( $P = .009$ ). Finally, experts

demonstrated fewer attention switches than novices ( $P = .002$ ).

**CONCLUSION:** Novices demonstrated more tool-tracking eye behaviors with longer dwelling time and attentional switches than did experts, which may translate into errors in clinical performance with needles.

Reference:

Sanchez, Y.P., Wilson-Keates, B., Conway, A. and Zheng, B. (2018) Gaze Performance Adjustment During Needlestick Application: Can We Reduce Harm? Nurse Educator. July 10th.

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