

## NAPCRG 52nd Annual Meeting — Abstracts of Completed Research 2024.

**Submission Id:** 7058

### **Title**

*The Impact of a Health Professions Education Program on Concussion Management: A Multi-Methods Study of ECHO Concussion*

### **Priority 1 (Research Category)**

Neurologic illness

### **Presenters**

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### **Abstract**

CONTEXT: Concussions, or mild traumatic brain injuries, are diagnosed in 150,000 Ontarians annually, resulting in disruptions to work, school, and sport. Concussion management is complex: variable onset of symptoms, urban/rural disparities, and the many professionals involved in case management. The ECHO (Extensions for Community Healthcare Outcomes) model is an ideal platform for dissemination of best practice guidelines and standards of care in common, complex, acute and chronic conditions. ECHO Concussion was launched in 2019 to teach clinicians a comprehensive approach to concussion diagnosis and management.

OBJECTIVE: To evaluate the impact of ECHO Concussion on clinician self-efficacy, knowledge, awareness of concussion tools and practice.

METHODS: A multi-method study of clinicians participating in ECHO Concussion was conducted from self-report pre-post questionnaires measuring self-efficacy, knowledge, and awareness of concussion tools (quantitative) and from focus group discussions (FGD) regarding self-efficacy, knowledge, and practice change (qualitative). Descriptive and inferential statistics were employed with quantitative outcomes. The qualitative descriptive approach was used to inductively code FGD transcripts. The study team discussed and reconciled discrepancies in qualitative codes until consensus was reached.

RESULTS: From November 2019 to June 2024, 636 clinicians attended ECHO Concussion sessions. 388 (61%) completed at least one pre- or post-ECHO questionnaire, with 118 (30%) completing both pre-post questionnaires. 11 (9%) participated in FGDs. Clinicians showed significant increases in self-efficacy items ( $p<.001$ ), total knowledge scores ( $p<.001$ ) and awareness of concussion tools ( $p=.002$ ). In terms of qualitative findings, clinicians were highly satisfied with ECHO Concussion, sharing that the program helped them stay on top of current evidence and better utilize resources and guidelines. ECHO

Concussion also increased clinicians' comfort in managing concussion by reinforcing previous knowledge while offering a supportive expert team to consult on knowledge and practice questions.

**CONCLUSION:** Concussion management is complex and ECHO Concussion can be beneficial for frontline clinicians. ECHO Concussion has a positive impact on clinician self-efficacy, knowledge, and concussion practice management, thereby helping to increase patient access to better care in the acute and chronic stages of concussion.

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