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

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### Title

Electronic Health Record Use and Patient-Centredness

# Priority 1 (Research Category)

Education and training

## Presenters

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# Abstract

Context: Large-scale electronic health record (EHR) programs have reported a number of issues to their implementation in primary care including physician patient-centredness and clinical performance.

Objective: To assess the impact of EHR use on primary care physician patient-centredness and clinical performance in simulated patient virtual encounters. Study Design and Analysis: Mixed-methods study which adapted simulated patient standardized clinical scenarios from family physician certification oral examinations to include use of the EHR.

Setting: An academic primary care clinic based in a hospital.

Population: Ten resident physicians and six staff physicians.

Intervention: Participants each completed two simulated patient scenarios with instructions to document their encounters in the EHR. Sessions were virtual and recorded over Zoom. Recordings were analyzed for patient-centredness, overall clinical performance, and EHR use.

Outcome Measures: Patient-centredness scores, Simulated Office Oral (SOO) exam scores

Results: There was a wide variation in use of the EHR during virtual encounters. In 11 of the 32 encounters, participants only clicked on one section of the EHR while interacting with the simulated patient. Scatter plot visualization of the data revealed a trend of lower patient-centredness and SOO scores with increased proportion of time actively using the EHR and navigating within the EHR while the simulated patient was present. Overall, this was not a statistically significant correlation. However, for residents only there was a statistically significant difference between their time spent actively using the

EHR and their patient-centredness scores (p=0.041). Independent samples t-tests showed a significant difference between resident and staff physician patient-centredness scores (p=0.027).

Conclusion: Active use of the EHR during virtual encounters negatively impacted resident and staff physician patient-centredness and overall clinical performance. Resident patient-centredness scores were negatively impacted to a greater extent by EHR use than were staff physician patient-centredness scores. A need for formal instruction in patient-centredness while using the EHR during virtual encounters was identified, to minimize the negative impacts of EHR use while charting contemporaneously to achieve maximum documentation efficiency and accuracy.

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