

**Introducing the Electronic Health Record during History Taking  
with Standardized Patients: What are Novice to Expert Skills??**

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to view a short video example of a student in the formative phase (February)  
and in the evaluative phase (May) of history taking with an Electronic Health Record.



# Introducing the Electronic Health Record during History Taking with Standardized Patients: What are Novice to Expert Skills?

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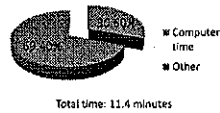
**Purpose:** This study investigated student nurse practitioners' (novice) communication skills when utilizing the electronic health record (EHR) during history taking with a standardized patient. Significance: The Health Information Technology for Economic and Clinical Health Act (HITECH) has stimulated the utilization of EHRs to improve quality and efficiency of patient care; consequently, widespread use of electronic health records will be inevitable (Blumenthal & Tavener, 2010). Unfortunately, introduction of the EHR to providers seems to have focused on the documentation and billing aspects. Therefore, identifying novice to expert communication skills, when using EHRs, is essential.

**Methods:** Nurse practitioner students (n=36), recently instructed on EHR use, were videotaped during two visits with standardized patients (formative and evaluative). Using OD LOG software, two observers recorded student time spent: typing and talking, typing only, and looking at computer without talking. Total time of history taking and placement of the computer was recorded. Inter-rater reliability was 0.84. The students used a laptop computer and were given a bedside table. Since the students were instructed to let the patient look at the computer screen, the position that the student placed the computer, was recorded.

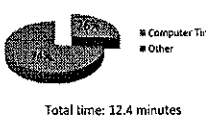
**Findings:** On the formative visit- mean history taking time was 11.4 minutes. Of this time, a total of 3.5 minutes was spent: typing and talking (45.9 sec) typing only (125.1 sec) and looking at computer not talking (37.3 sec) for 30.6% of this visit. On the evaluative visit- mean history taking time was 12.4 minutes - of this time, a total of 2.95 minutes was spent: typing and talking (31.9 sec), typing only (124.7 sec) and looking at computer not talking (20.9 sec) for a 24% of this visit. A slight difference was noted between mean group times (p = 0.361). The percent of time spent by individuals changed over the two visits: Typing and talking (-3.1%, p= 0.3); typing only (+12.8%, p=0.038); looking at computer (-9.6% p= 0.039). Sixty-three (63%) of the students positioned computer where patient could see the screen.

## Novice Time Spent on Computer (Formative - Feb and Evaluative - May)

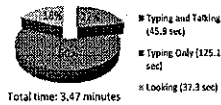
History Taking Time Feb 2012



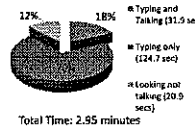
History Taking Time May 2012



Computer Time Feb 2012



Computer Time May 2012



## Computer Positioning Requires Attention and Practice for the Novice

Formative Phase



Evaluative Phase



Scan here to view a video example of a student in the formative phase (February) and in the evaluative phase (May).



**Conclusions:** Results reveal a significant change in individual student time spent engaged with the computer (increase typing only and decreased looking only) on the evaluative visit. Students need instruction on introducing EHR documentation into the visit and practice navigating the EHR while history taking. Computer positioning needs to be discussed with novices, including problem solving for positional variations that they will find in their clinical settings. Sharing the view of the EHR with patients is new to nurses who have been taught to hide the screen from view in the hospital environment.

**Discussion:** Attention must be paid to EHR communication skills in nurse practitioner education and curriculum. A helpful mnemonic which summarizes communication skills for the EHR can be used:

### "L.E.V.E.L." (Physician Exam Room EHR Etiquette)?

- L. - Let the patient look on
- E. - Eye contact
- V. - Value the computer
- E. - Explain what you are doing
- L. - Log out

**Recommendations:** The findings of this study are limited by the small sample size; therefore, further research with novice students, as well as, experienced providers examining communication skills while using the EHR is recommended. This is necessary to determine "expert" practice and to develop "Best Practices" for EHR communication skills and placement of the computer during a primary care visit.

### References

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