



Electronic Health Record: Helping or Harming Patient-Centered Care?

Stacy Slater, BS, Miranda Mitchell, BA, Leah Lappin, BS,

Dr. Lenora McWilliams PhD, MS, RN, and Dr. Cheryl Brohard PhD, RN, CNS-ONC, AOCN®, CHPCA®



Literature Review

Databases: CINAHL, Ovid, Google Scholar
Key Terms: EHR, patient-centered care, workstation on wheels, patient interaction, patient satisfaction.
Criteria: Sample n>20 and publication date 2012-2018

PICOT Question

How do patients (in any physician/nurse/hcp relationship) perceive the quality of care and communication effectiveness while healthcare providers implement the electronic health record as a primary contributor to the plan of care during a clinical visit?



EBP Guidelines

Access - Remind - Request - Communicate - Share -
Manage diseases – Educate

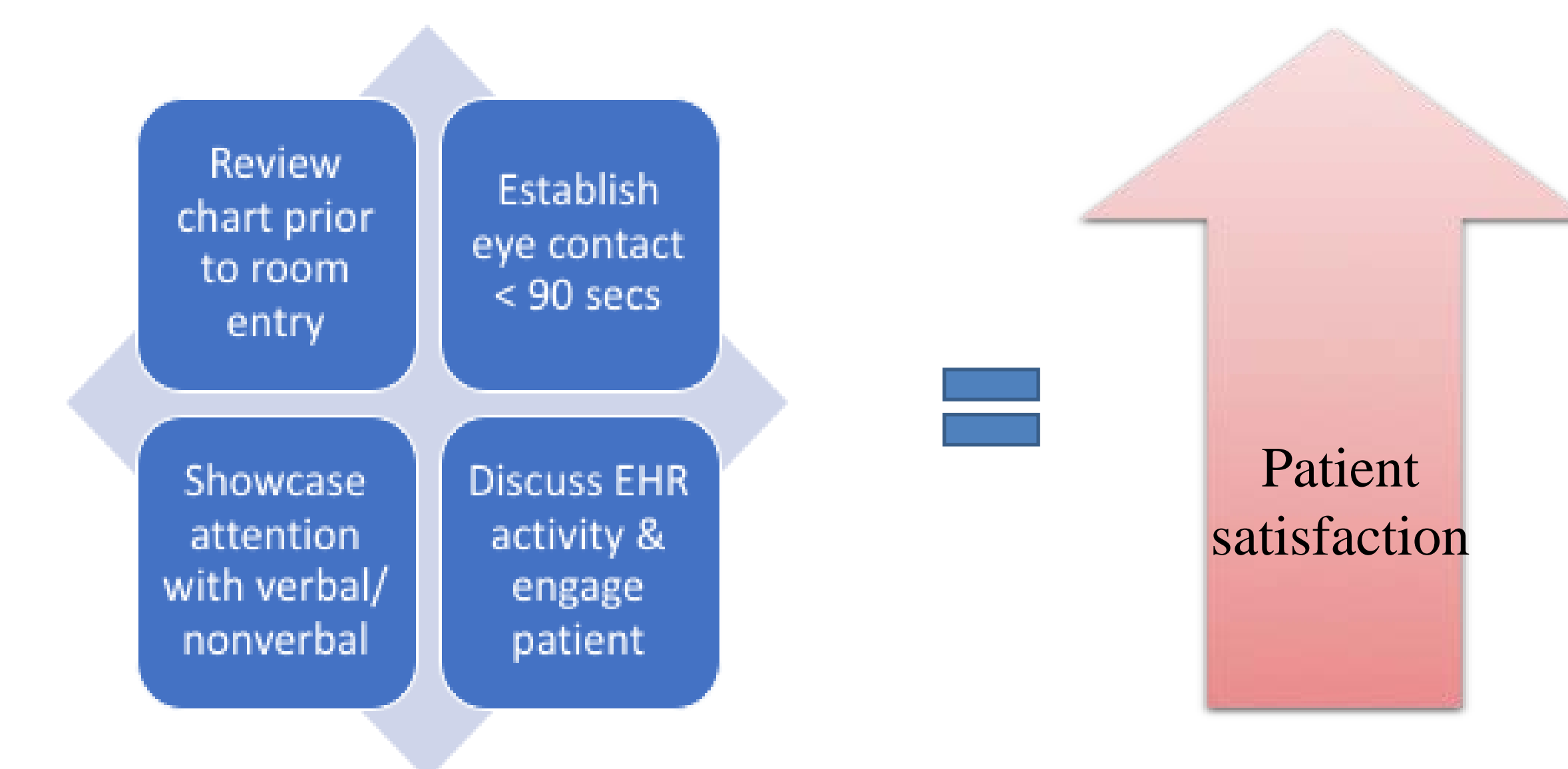
Research Synthesis

Helping	Harming
<ul style="list-style-type: none">EHR implementation ensures better patient outcomes, more efficient care, and higher patient safety than institutions without EHR⁴.85% of pts reflected (+) perceptions of EMR: promoting pt engagement, and providing additional source of visuals, enhancing understanding⁶Pts favor “highly skilled” computer utilization from provider³Trainings implement “sign postings,” by helping to understand structure and meaning of consultation and increasing his/her participation⁵Formal education enhances pt-centered EHR communication skills, still requiring time and cost-effective training programs¹Residents improved patient communication when utilizing the EHR over a paper record¹¹Pts approve EHR usage, believing it facilitates ease of communication⁸	<ul style="list-style-type: none">Increased consultation keyboard use hinders patients, producing “lower levels of patient trust”³“PCPs who spent more time in the consultation gazing at the computer and whose visits had more conversational silence were rated lower in patient-centeredness”⁴⁹Keyboarding and screen gaze have inverse relationship with physician flow of conversation³EHR <i>can</i> demoralize progress of relationships when PCPs dedicate too much of their attention into EHR⁷EHR use decreases total pt satisfaction, as is a concern of many physicians, because the electronic systems interfere with pt/physician interaction by directing the focus toward the computer rather than the pt²Pts grow reluctant to be active participants during encounters when provider’s positioned behind a screen¹⁰

Decision to Change

- Regular trainings: keeping current on usage and eliminating unnecessary time on EHR
- Universal beginnings/endings with eye contact and workstation separation
- All patient rooms stocked with legal pads and pens for note-taking
- Role-playing best practices staying engaged w/ patients

Results



References

- Alkureishi, M. A., Lee, W. W., Webb, S., & Arora, V. (2018). Integrating Patient-Centered Electronic Health Record Communication Training into Resident Onboarding: Curriculum Development and Post-Implementation Survey Among Housestaff. *JMIR Medical Education*, 4(1), e1. doi:10.2196/mededu.8976 -- 2. Farber, Neil J; Liu, Lin; Chen, Yunan; Calvitti, Alan; Street, Richard L Jr; Zuest, Danielle; Bell, Kristin; Gabuzda, Mark; Gray, Barbara; Ashfaq, Shazia; Agha, Zia (2015). EHR use and patient satisfaction: what we learned. *Journal of Family Practice*, 64(11). 687-696. Retrieved from http://hai.ics.uci.edu/papers/Farber_Street_JFam_Prac.pdf -- 3. Kazmi, Z. (2013) Effects of exam room EHR use on doctor-patient communication: a systematic literature review. *Journal of Innovation in Health Informatics*. 21(1). doi:10.14236/jhi.v21i1.37 -- 4. Kutney-Lee, A., & Kelly, D. (2011). The Effect of Hospital Electronic Health Record Adoption on Nurse-Assessed Quality of Care and Patient Safety. *The Journal of Nursing Administration*, 41(11), 466-472. doi: 10.1097/NNA.0b013e3182346e4b -- 5. Lanier, C., Dominicé Dao, M., Hudelson, P., Cerutti, B., & Junod Perron, N. (2017). Learning to use electronic health records: can we stay patient-centered? A pre-post intervention study with family medicine residents. *BMC Family Practice*, 18, 69. doi:10.1186/s12875-017-0640-2 -- 6. Lee, W. W., Alkureishi, M. A., Ukabiala, O., Venable, L. R., Ngooi, S. S., Stasiunas, D. D., Arora, V. M. (2016). Patient Perceptions of Electronic Medical Record Use by Faculty and Resident Physicians: A Mixed Methods Study. *Journal of General Internal Medicine*, 31(11), 1315-1322. doi:10.1007/s11606-016-3774-3 -- 7. Rathert, C., Mittler, J.N., Banjeree, S., & McDaniel, J. (2017). Patient-centered communication in the era of electronic health records: what does the evidence say? *Patient Education Counseling* 100(1) 50-64. doi:10.1016/j.pec.2017.04.019 -- 8. Rose, D., Richter, L. T., & Kapustin, J. (2014). Patient experiences with electronic medical records: Lessons learned. *Journal of the American Association of Nurse Practitioners*, 26(12), 674-680. doi:10.1002/2327-6924.12170 -- 9. Street, R. L., Liu, L., Farber, N. J., Chen, Y., Calvitti, A., Zuest, D., Agha, Z. (2014). Provider interaction with the electronic health record: The effects on patient-centered communication in medical encounters. *Patient Education and Counseling*, 96(3), 315-319. doi:10.1016/j.pec.2014.05.004 -- 10. Street, R.L., Liu, L., Farber, N.J., Chen, Y., Calvitti, A., Weibel, N., Gabuzda, M.T., Bell, K., Gray, B., Rick, S., Ashfaq, S., & Agha, Z. (2018). Keystrokes, mouse clicks, and gazing at the computer: how physicians interaction with the EHR affects patient participation. *Journal of General Medicine*, 33(4). 423-428. Doi: 10.1007/s11606-017-4228-2 -- 11. Taft, T., Lenert, L., Sakaguchi, F., Stoddard, G., & Milne, C. (2015). Effects of electronic health record use on the exam room communication skills of resident physicians: a randomized within-subjects study. *Journal of the American Medical Informatics Association : JAMIA*, 22(1), 192-198.doi:10.1136/amiajnl-2014-002871

Acknowledgements

Academic scholarships were received by Miranda Mitchell from Evolution RX Pharmacy; Stacy Slater received Fred and Mabel Parks and AMRI Scholarships. A special thank you to UH CON faculty Danielle Quintana, MSN, RN, CNOR; Earline Moreland, MSN, RN, Dr. Shainy Varghese, PhD, RN, & Dr. Kathleen Reeve, PhD, RN for their participation in our vignettes.