Evaluation of Nursing Students' Knowledge of EHR Features Related to Test Results Reporting

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Background

- There is inconsistency in the way providers use EHRs.[1,2]
- Studies report that healthcare providers feel training on use of EHRs is inadequate and their ability to use EHRs could be improved.[3]
- The US Office of the National Coordinator for Health Information Technology published the Safety and Assurance Factors for EHR Resilience (SAFER) Guides to allow clinicians and healthcare organizations to evaluate EHRs for optimal use and safety features.[4]
- Nursing students are exposed to a variety of EHR systems in their clinical training and often learn how to use EHRs from preceptors and mentors with very little formal training.
- Little is known about nursing students' knowledge of specific EHR features.
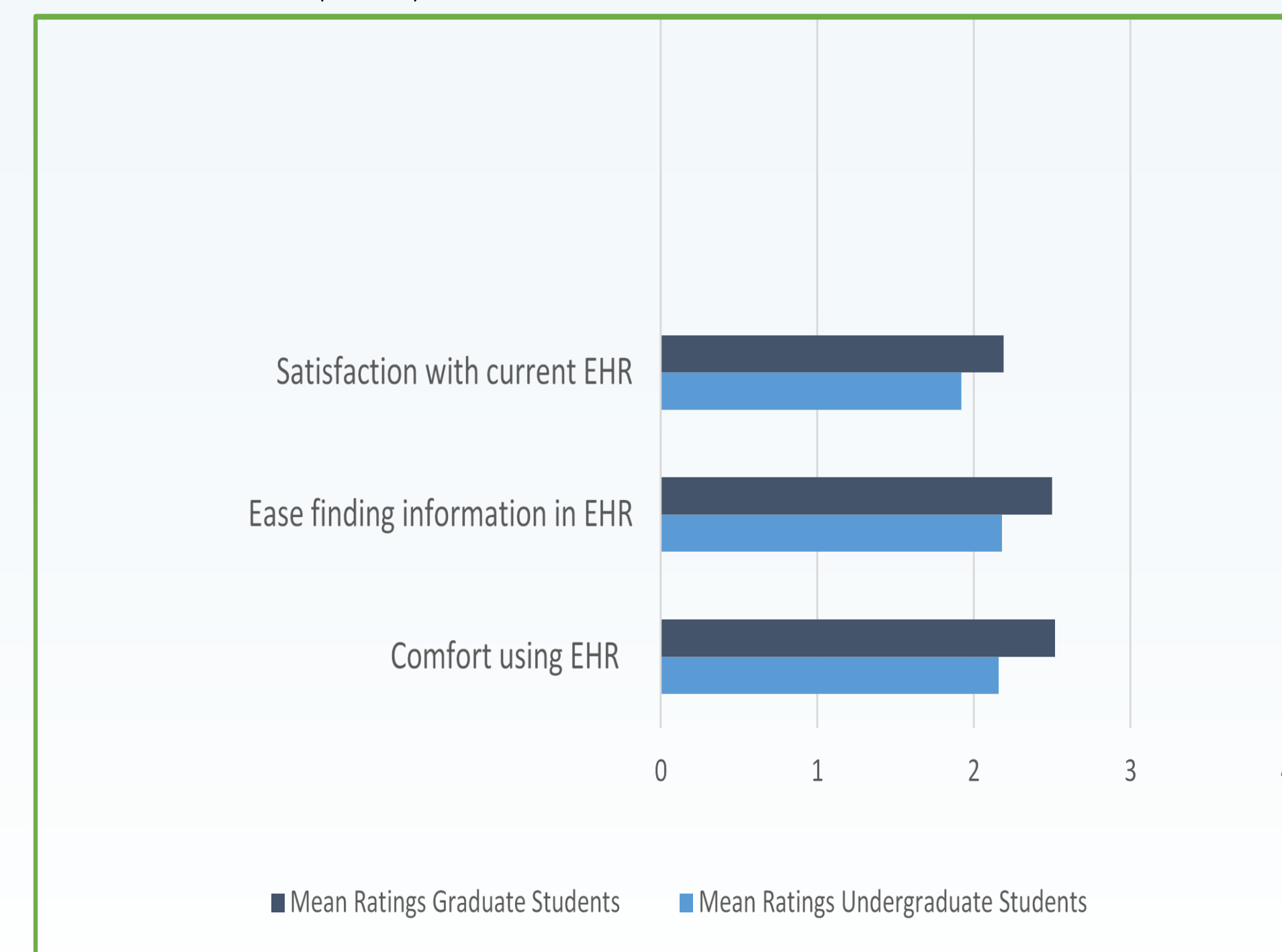
Objectives

- The purpose of this project was to evaluate graduate and undergraduate nursing students' knowledge of EHR features utilizing the SAFER guides test result and reporting checklists in order to determine features for which a higher percentage of students lacked knowledge.
- Additionally, we evaluated student's satisfaction, ease, and comfort with EHR use in the clinical setting.

Methods

- This descriptive study assessed knowledge of EHR features among 108 undergraduate and 65 graduate nursing students enrolled in clinical practicum courses at a U.S. University.
- Students completed a demographic survey and rated their knowledge of EHR features used in their clinical site by completing a modified version of the 23-item test results and reporting SAFER guide checklist.
- Students rated their knowledge of test results and reporting features in the EHR with the choices of "I don't know," "Fully implemented," "Partially implemented," or "Not implemented."
- Students rated satisfaction, ease, and comfort with the EHR used in their clinical site on a 5-point
- SPSS 24 software was used to analyze frequencies and percentages

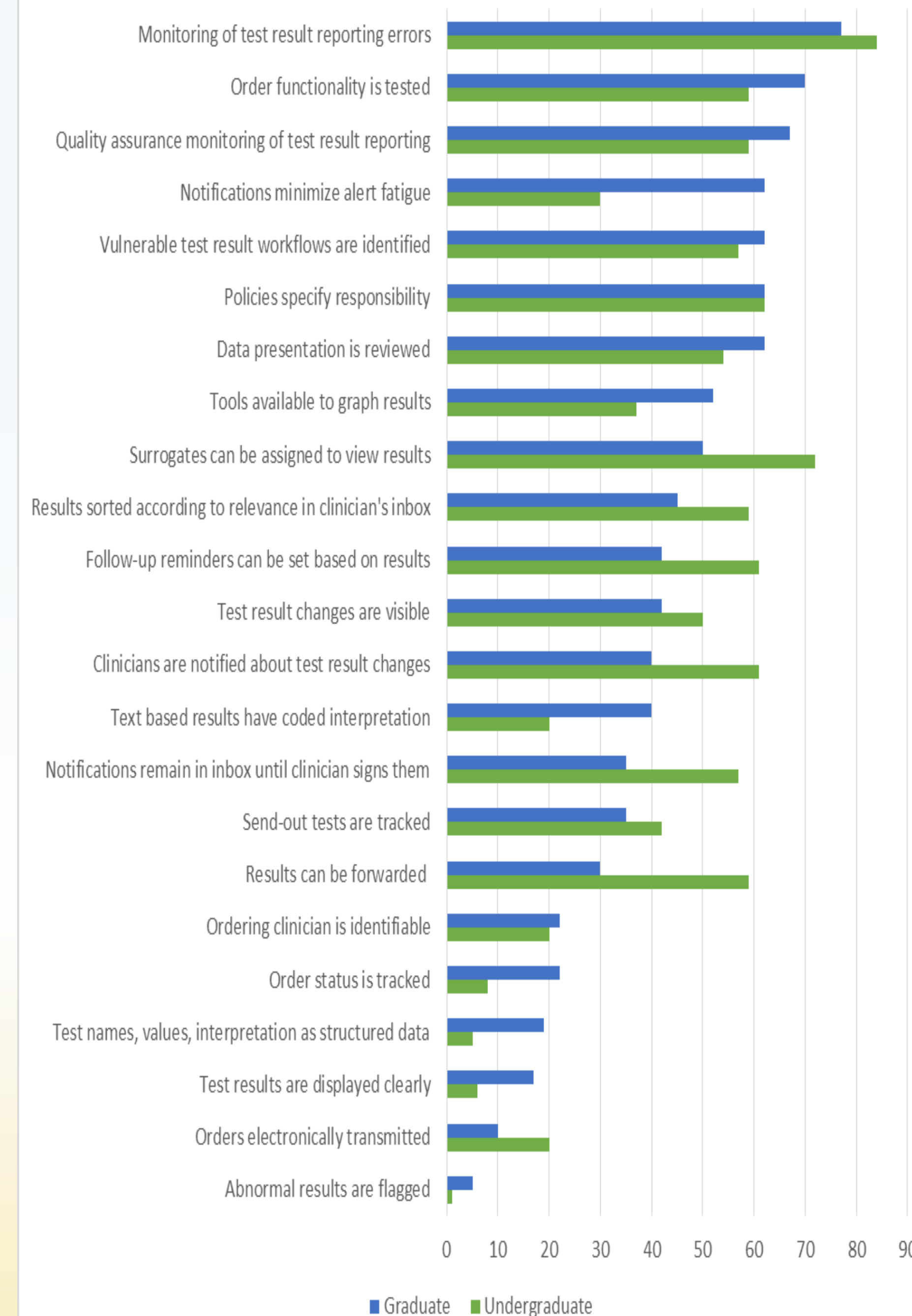Student Satisfaction, Ease, and Comfort with EHR

Satisfaction rated on a 5-point scale with 0=not satisfied, 1=somewhat satisfied, 2=satisfied, 3=very satisfied, 4=extremely satisfied. Ease rated on a 5-point scale with 0=very difficult, 1=somewhat difficult, 2=not difficult, 3=easy, 4=very easy. Comfort rated on a 5-point scale with 0=very uncomfortable, 1=somewhat uncomfortable, 2=somewhat comfortable, 3=comfortable, 4=very comfortable.

Results

- The undergraduate students received clinical training in 11 different specialty units in 15 different inpatient hospitals.
- The graduate nursing students were completing clinical rotations in ambulatory/outpatient family practice settings.
- Over 50% of graduate and undergraduate students rated that they had no knowledge of several EHR features relating to test results and reporting

Percent of graduate (n=65) and undergraduate (n=108) students' rating no knowledge of EHR test result reporting features

Conclusions

- Nursing students reported a lack of knowledge about many of the features assessed by the SAFER guides test results and reporting checklist.
- These findings highlight EHR features for which educational materials and training can be developed to improve student understanding and optimal utilization of EHRs.
- The majority of students reported that using the SAFER guide test results and reporting checklist increased their awareness of EHR features.
- Utilizing the SAFER guide checklist identified topics to improve nursing informatics education regarding specific test result and reporting EHR features.

References

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[3]Middleton B, Bloomrosen M, Dente MA, et al. Enhancing patient safety and quality of care by improving the usability of electronic health record systems: Recommendations from AMIA. *J AM Med Inform Assoc.* 2013;20:e2-e8. Doi:10.1136/amiajnl-2012-001458.
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