



PURPOSE

Development of a tool to evaluate a workload scoring (WLS) and nurse assignment wizard (NAW) pilot simulation at Cincinnati Children’s Hospital Medical Center (CCHMC).

THEORY

- Diffusion of Innovations theory- framework of questions used for the evaluation tool. Rogers (1995)
• Lewin’s Change theory (Lewin, 1951).
• Ethical consideration: beneficence and nonmaleficence and distributive justice. (American Nurses Association, 2015).
• Theory of Human Caring is also applicable based on caring for end users and those affected by the innovation e.g., patients, family, and staff. Watson (2015)

EVALUATION/OUTCOMES

- Questionnaire responses will be formatted into pie graphs
• Negative responses require follow up to resolve.
• Positive responses inform future questions
• Successful outcome will be affirmed by end user responses that parallel project objectives
• Question evaluation helps determine tool modification.
• Responses to questionnaire will be used to drive improvements to usability and end user experience of WLS and NAW tools

RECOMMENDATIONS

- Evaluation should be considered at project inception
• End users should be involved during all phases of a project
• Relevance to nursing informatics: use theory to create a robust evaluation tool that incorporates multiple methods
• Properly identifying what needs to be evaluated prior to developing interventions (pilot programs) exposes incompatibilities for rectification, thus enhancing feasibility

BACKGROUND/LITERATURE REVIEW

- Upgrade to CCHMC EHR to eliminate redundant charting and automate an acuity scoring process: workload scoring (WLS) and nurse assignment wizard (NAW)
• WLS: When workload scores are generated in the electronic health record, they are then available for charge nurses/management to make daily assignments based on predetermined acuity thresholds.
• WLS can then be communicated to Nursing Assignment Wizard (NAW) for creation of daily nursing assignments.
• Evaluation methods from literature review: self-report questionnaire (SRQ), behavioral markers and global rating scale. (Santomauro, Hill, McCurdie, and McGlashan (2020)

PROJECT DESCRIPTION & METHODS

- Iterative self-report questionnaire
• Designed to measure usability, validity, and acceptance of WLS/NAW
• Used to resolve gaps identified during the pilot and produce data for evaluation
• Flexible, needs to provide quantitative and qualitative data, formative & summative assessments (Santomauro et al., 2020).
• Question format: yes/no & explain, multiple choice, open text
• Bi-weekly collaboration meetings

CONCLUSION

- Acceleration of change in healthcare is being driven by digitalization.
•Frequent advancements engender system updates require strategic planning.
•Evaluating user responses to system trials is imperative
•Identification of flexible evaluation tool should be considered at project inception by leadership.
•End users need to be involved from the onset to provide perspective and better inform all phases of the project, including evaluation.
•Failure to include an evaluation tool can corrupt outcomes, requiring planners to work backwards to fix problems
•Findings indicate additional research is needed to develop more evidenced based best practice evaluation strategies.

EVALUATION TOOL

Workload Scoring Pilot Evaluation
1. Do you believe the pilot addressed all concerns regarding workload scoring (WLS) implementation?
2. What concerns need to be addressed before WLS can be implemented?
3. Have the pilot scoring totals been comparable to the existing scoring method?
4. Have WLS totals been higher or lower?
5. Are the WLS threshold parameters reflective of patient workload and acuity?
6. Are the assignments more balanced because of WLS?
7. Are the assignments more balanced because of Nursing Assignment Wizard?
8. How difficult was it for staff to learn/use Nursing Assignment Wizard?
9. Have you noticed any impact (positive or negative) to bedside nurses?
10. Any additional comments or suggestions?