



Implementation of a Nurse Assignment Tool

Background

- ✓ In a setting in northeastern Ontario, Canada, effective patient care relies on collaboration between Registered Nurses (RNs) and Registered Practical Nurses (RPNs) within their defined scopes of practice. To support safe and efficient staffing decisions, nurse leaders must balance regulatory standards, workload distribution, and patient needs.
- ✓ In July 2023, the College of Nurses of Ontario (CNO) approved the Scope of Practice standard, outlining nurses' legislative responsibilities in making patient care decisions. The RNAO (2007) emphasizes that staffing decisions should be made at the unit level to account for patient, nurse, and environmental factors.
- ✓ Despite various existing staffing tools, it remains unclear whether their implementation improves staffing efficiency, alters staff allocation, or influences assessments of patient needs (Griffins et al., 2020).

Research Objectives/Purpose

- ✓ This project aims to implement and evaluate the effectiveness of a Nursing Care Assignment tool in the emergency department and inpatient medical units of a hospital in Ontario, Canada. In collaboration with key stakeholders at West Nipissing General Hospital, the Research Centre at Canadore College seeks to develop a theoretically sound approach to its implementation.
- ✓ The study will assess the context, barriers, facilitators, and strategies for effective adoption. By gathering insights from key stakeholders, the research will identify factors critical to the successful integration of the tool in resource-limited tertiary settings, improving the assignment process for Registered and Practical Nurses.

Research Questions

1. What are the determinants that influence the use/non-use of the nursing care assignment tool in a less resource-intensive tertiary setting?
2. What are the knowledge translation strategies that influence use/non-use of the nursing care assignment tool in a less resource-intensive tertiary setting?
3. What rationales (or factors) influence the patient assignment in cases when the RN/RPN allocation is different from the recommendation made in the tool?
4. What is the nature of adherence (appropriate use, appropriate non-use, inappropriate use and inappropriate non-use) to the tool?

Potential Practice Implications

Optimizing Nursing Scope of Practice:

Ensuring RNs and RPNs are assigned based on their competencies, enhancing role clarity and utilization.

Improving Patient Experience:

Ensuring consistency in care and fostering better nurse-patient relationships. Increasing satisfaction and reduced wait time.

Improving Workflow Efficiency:

Streamlining patient assignments to reduce administrative burden and support timely decision-making.

Enhancing Patient Health Outcomes:

Matching patient needs with appropriate nursing expertise to improve care quality and safety.

Method

Phase 1 Methods: Issue Identification and Clarification

The nursing care assignment tool was initially developed by the former Chief Nursing Officer at WNGH to improve RN and RPN patient assignments. Adapted from the RN/RPN Utilization Toolkit (Blastorah et al., 2010), the tool aligns with the College of Nurses of Ontario's (CNO, 2005) standards, considering patient complexity, nurse competencies, and environmental stability.

To refine the tool, we will collaborate with currently employed nursing staff throughout three phases. We will conduct an environmental scan, gathering contextual details from the hospital's website and key informants. This will include data from the human resources department and a preliminary nursing staff survey, assessing factors such as staff mix, education, years of service, nurse-to-patient ratios, and resource availability.

Phase 2 Methods: Build Solutions and Field Test

To assess potential barriers and facilitators (factors) of the nursing care assignment tool, we will conduct a baseline survey of RNs and RPNs in the emergency and medical departments at WNGH. This will help identify both perceived and actual barriers to its use. Any modifiable factors—such as tool design or implementation processes—will be addressed to enhance usability.

Findings will be mapped to targeted strategies, including stakeholder engagement through local champions (McHugh et al., 2022). The revised tool will then be piloted in the designated departments, with the duration determined by the research site.

Phase 3 Methods: Launch

Retrospective Report Audit:

Data will be collected every four weeks following full implementation of the nursing care assignment tool. A research assistant will transcribe data from completed assignment forms into an Excel abstraction form, following a validated collection process approved by the Chief Nursing Officer at WNGH. De-identified data will be securely stored and analyzed. Tool usage will be categorized into four observations: appropriate use, appropriate non-use, overuse, and underuse, with adherence measured by the combined frequency of appropriate use and non-use.

Barriers Assessment:

At three and six months post-implementation, individual interviews and/or focus groups with RNs and RPNs will explore factors influencing the tool's use. Sessions will be audio recorded, transcribed, and analyzed using conventional content analysis (Hsieh & Shannon, 2005) allowing us to identify what the nurses' perceptions of the tool are in real time. A second researcher will independently code 20% of transcripts to ensure reliability. Emerging themes will be discussed with the research team to refine implementation strategies.

A summary of findings from the three phases will be synthesized and presented in a report to the hospital. Specifically, anonymized results and recommendations for sustained use of the tool will be presented to the Chief Nursing Officer for consideration.

References

- ✓ Blastorah, M., Alvarado, K., Duhn, L., Flint, F., McGrath, P., & VanDeVelde-Coke, S. (2010). Development and evaluation of an RN/RPN utilization toolkit. *Nursing leadership*, 23, 33-55.
- ✓ College of Nurses of Ontario (CNO).
- ✓ Griffiths, P., Saville, C., Ball, J., Jones, J., Pattison, N., Monks, T., & Safer Nursing Care Study Group. (2020). Nursing workload, nurse staffing methodologies, and tools: A systematic scoping review and discussion. *International Journal of Nursing Studies*, 103, 103487.
- ✓ Graham, I. D., Logan, J., Harrison, M. B., Straus, S. E., Tetroe, J., Caswell, W., & Robinson, N. (2006). Lost in knowledge translation: Time for a map? *Journal of Continuing Education in the Health Professions*, 26(1), 13-24. <https://doi.org/10.1002/chp.47>.
- ✓ Harrison, M. B., & Graham, I. D. (2021). *Knowledge Translation in Nursing and Healthcare: A roadmap to evidence-informed practice*. Wiley Blackwell.
- ✓ Hsieh HF, Shannon SE. Three approaches to qualitative content analysis. *Qual Health Res* 2005 Nov;15(9):1277-1288. doi: 10.1177/1049732305276687.
- ✓ Lincoln YS, Guba EG. *Naturalistic Inquiry*. Newbury Park, CA, USA: Sage Publications; 1985.
- ✓ McHugh, S., Presseau, J., Luecking, C.T., Powell, B.J. Examining the complementarity between ERIC compilation of implementation strategies and the behaviour change taxonomy: a qualitative analysis. *Implementat Sci*. (2022) 17:56. doi: 10.1186/s13012-022-01227-2.
- ✓ Patton MQ. Enhancing the quality and credibility of qualitative analysis. *Health Serv Res* 1999 Dec;34(5 Pt 2):1189-1208[FREE Full text]
- ✓ Skolarus, T. A., Lehmann, T., Tabak, R. G., Harris, J., Lecy, J., & Sales, A. E. (2017). Assessing citation networks for dissemination and implementation research frameworks. *Implementation Science*, 12(1), 97. <https://doi.org/10.1186/s13012-017-0628-2>.

Principal Investigators:

Dr. Nicole Graham, RN, Ph.D. Professor, Honours Bachelor of Science in Nursing, Canadore College.

Dr. Letitia Nadalin-Penno, RN, Ph.D., MBA, MScN-APN. Dean Faculty of Environmental and Health Sciences, Canadore College.

Co-Investigators

Dr. Diane Duff
Professor, Honours Bachelor of Science in Nursing
Canadore College

Project Coordinator

Dr. Omid Ali Kharazmi
Research Specialist, Research Centre
Canadore College.