USE OF AN OBSERVATIONAL TOOL AND THE OMAHA SYSTEM TO CAPTURE ACUTE CARE NURSING INTERVENTION AND TIME STUDY DATA

Jason J. Fratzke, MS, RN, Nurse Administrator Mayo Clinic, Rochester, Minnesota, USA
Genevieve Melton-Meaux, MD, MA, Associate Professor, Department of Surgery, University of Minnesota, Minneapolis, Minnesota, USA
Karen A. Monsen, PhD, RN, FAAN, Assistant Professor, School of Nursing, University of Minnesota, Minneapolis, Minnesota, USA

Background
During the provision of care, nurses are often engaging in multiple actions simultaneously. Methods are needed to better understand acute care practice.

Purpose
To facilitate time expenditure analysis of nurses in an acute care setting.
To explore structuring data collection using an interface terminology.
To evaluate the utility of the Omaha System for these purposes.

Methods
An observational time-motion tool that enabled multitasking observations was developed based on an AHRQ model.
This study was conducted within a 24 beds medical-surgical inpatient unit at a tertiary University-affiliated medical center.
The sample consisted of 6687 nurse observations collected by PhD students in health informatics and nursing using the observational tool.

Time Expenditure
Total time captured = 96 hours, 2 minutes
37% of time on administrative tasks
63% of time classified as nursing interventions
1 intervention averaged 1.1 minutes
Bowel function-TP–ostomy care 4.9 minutes (0.2-21.3, SD 8.2)
Circulation-S-s/sx physical 0.5 minutes (0.1-3.1, SD 0.5)
Medication regimen-TP- medication administration 1.0 minutes (0.1-10.7, SD 1.4)

Omaha System Results
The most common of 8 problems was Health care supervision.
The most common of 4 categories was Case management.
The most common of 20 targets was communication.

Evaluation
Omaha System terms captured acute care nursing interventions in this observational study. These data should be validated by experts and replicated in further studies.
Preliminary results indicate that Omaha System terms meaningfully captured acute care nursing interventions.

Conclusion
This study demonstrated the feasibility of using an observational time-motion tool to gather standardized data related to acute care nursing interventions. There is potential to further evaluate the efficiency and effectiveness of acute care nursing interventions using this method.

Next Steps
Replicate study in other acute care settings.
Validate results with acute care nursing experts.
Compare results of observers to nurse self-report.
Describe acute care practice standards using the Omaha System in evidence-based care plans.
Test evidence-based care plans in EHRs.

Total time captured = 96 hours, 2 minutes
37% of time on administrative tasks
63% of time classified as nursing interventions
1 intervention averaged 1.1 minutes
Bowel function-TP–ostomy care 4.9 minutes (0.2-21.3, SD 8.2)
Circulation-S-s/sx physical 0.5 minutes (0.1-3.1, SD 0.5)
Medication regimen-TP- medication administration 1.0 minutes (0.1-10.7, SD 1.4)