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

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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

<u>1 intervention averaged 1.1 minutes</u>

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)

Health care supervision- TGC - s/sx physical
0.7 minutes (0.2-1.6, SD 0.4)

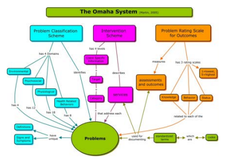
Personal care -TP -personal hygiene
1.4 minutes (0.3-7.8, SD 2.2)

Omaha System Results

Problem	N	minutes
Health care supervision	2626	2426.32
Medication regimen	868	697.67
Circulation	421	234.58
Neighborhood/workplace safety	116	74.68
Skin	60	114.83
Urinary function	39	39.47
Personal care	11	15.48
Bowel function	6	29.45

The most common of 8 problems was

Health care supervision



Category	N	minutes
Case Management	1962	1882.72
Surveillance	1202	740.97
Treatments and procedures	719	756.47
Teaching, guidance, and counseling	264	252.33

Target	N	Minutes
communication	1040	892.38
signs/symptoms - physical	672	805.40
medication administration	642	476.05
nursing care	601	415.12
medication set up	225	219.42
medical/dental care	200	148.52
interaction	139	121.72
environment	116	74.68
durable medical equipment	111	45.97
laboratory findings	91	46.38
supplies	91	50.88
dressing change/wound care	60	114.83
education	60	70.23
continuity of care	34	63.53
transportation	22	20.38
paraprofessional/aide care	15	15.58
personal hygiene	11	15.48
specimen collection	10	4.27
ostomy care	6	29.45
medication action/side effects	1	2.20

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