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The purpose of this study was a secondary analysis in order to determine missed nursing care and reasons for missed nursing care in a hospital system located in the southwest United States. Data was collected from a system-wide parent project in which bedside and specialty nursing personnel completed the MISSCARE Nursing Survey. Interventions for basic care were missed by 45.7% of bedside nursing staff, while individual needs and planning were missed by >35% and assessment was missed by >20%. Reasons for missed care were lack of labor resources (63.2%), material resources (36.7%), and communication (31.9%). Specialty nursing staff revealed 12 elements of missed care (ambulation, turning, hygiene, intake/output documentation, surveillance, documentation, assessments, and medication) and 7 themes for reasons of missed care. **Key words:** patient care, nursing practice, missed nursing care, quality of care, outcomes, hospital staffing, and effective communication

# MISSCARE NURSING SURVEY: A SECONDARY DATA ANALYSIS

# PRACTICUM REPORT

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# MASTER OF SCIENCE

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#### CHAPTER I

#### INTRODUCTION

The hierarchal organization of a hospital involves management, caregivers, and support staff for joint performace. With a common mission, the collaboration of teams must effectively communicate in order to enable individual responsibility<sup>1</sup>. Specifically, in a hospital, the shared goal is to provide quality care, and the results can be measured by examining the health of patients. In the heathcare infrastructure, nursing personnel are a significant link between system policies and patient outcomes; these caregivers have significant roles both the patient bedside and in special situations. To develop positive outcomes through effective personnel, hospital-wide improvement can be achieved through continual evalution of the performance of staff nurses.

The American Medical Association's Code of Ethics outlines that there is an ethical responsibility to study situations which affect patient outcomes<sup>2</sup>. Specifically, acts of health care errors, or omissions, must be reviewed in order to enhance patient health and improve upon system policies<sup>2</sup>. Conversely, only within the past decade have research efforts been coordinated to identify and explain missed nursing care. In 2006, the qualitative MISSCARE Nursing Survey tool was developed to address the issue of missed nursing care. This project was facilitated by B. Kalisch, PhD, RN<sup>3</sup>; Kalisch and her research team initiated the MISSCARE Nursing Survey project with a focus group study. The interviews created a dialogue regarding regularly missed care and reasons for not completing the care. This qualitative feedback was the impetus for the development of a validated quantitative MISSCARE Nursing Survey tool<sup>4</sup>.

### CHAPTER II

### INTERNSHIP SUBJECT

"MISSCARE Nursing Survey: Secondary Analysis," is designed to complete a secondary analysis of data sets from the parent project. Data from both the quantitative and qualitative MISSCARE Nursing Survey tools were collected by the hospital system's nurse researcher; completed data sets from five hospitals will be included in this secondary analysis. The expectation is that the results from the secondary analysis will provide information concerning the frequency and type of missed care as well as reasons for the missed care. This information can then be used to inspire change in policy for improved practice.

# **Background**

### Previous Studies

Study results have demonstrated a direct relationship between system protocols, nursing care, and patient health. Previous projects have assessed the various implications of care omissions; delayed or missed care by nurses can jeopardize patient satisfaction<sup>5</sup>. The factors which create missed care situations have been explored. Documented reasons for missed care are eclectic, however, responsibility is often placed on overwhelming nursing workload<sup>6</sup>. Evidence suggests that the level of individual stress and psychological burden is a factor for nursing burnout<sup>5,6</sup>. The prevalence of fatigued staff is significant; for example, one survey study of over 10,000 nurses determined that nearly 40% of staff reported emotional exhaustion and burnout<sup>5</sup>. In light of this evidence, research has also shown that with an increase in the nurse-to-patient ratio and additional time in direct care, patient outcomes can be improved<sup>5</sup>.

Information regarding nursing care inspired the development of the aforementioned MISSCARE Nursing Survey. This innovative approach began when Kalisch et al. (2006) initiated a focus groups project to ask what care was being omitted by nurses on medical-surgical units<sup>3</sup>. Kalisch and the research team led 25 focus groups of nursing personnel from medical-surgical units in two different hospitals. The study revealed 9 elements of missed care and 7 themes of reasons for missed care<sup>3</sup>. The categories of missed care that emerged from the focus groups were identified: (1) ambulation; (2) turning; (3) delayed or missed feedings; (4) patient education; (5) discharge planning; (6) emotional support; (7) hygiene; (8) intake/output documentation; and, (9) surveillance of patients in distant locations<sup>3</sup>. Upon further inquiry, the reasons for missed care were categorized: (1) staffing issues; (2) amount of time for complete

nursing interventions; (3) poor use of existing resources; (4) "It's not my job" syndrome; (5) ineffective delegation; (6) habits of not completing tasks; and, (7) denial of tasks being performed by ancillary staff<sup>3</sup>.

# Parent Project and Current Focus

Continuing the work of Kalisch et al., (2006), this current secondary study is designed to analyze data sets from a MISSCARE Nursing Survey parent project. The purpose of the parent project is to implement the MISSCARE Nursing Survey in order to provide a comprehensive knowledge-base regarding instances of missed nursing care and reasons for the missed care. This project was organized by its Principal Investigator, the study coordinator and nurse researcher to survey nursing personnel within a hospital system in the southwest United States.

Results from the study concluded that missed nursing care jeopardizes quality and safety of patient care. The purpose of the parent MISSCARE Nursing Survey study in a hospital system within the southwest United States is to improve patient satisfaction and patient care quality from a nursing perspective. This practicum project is a secondary analysis of the qualitative and quantitative data sets from five hospitals participating in the parent project. Through this collaboration, data collected from the parent project Principal Investigator and Co-Investigator will be analyzed in order to identify missed nursing care and reasons for this missed nursing care.

# **Significance**

When tasks are missed by nursing staff, patients do not receive quality care, thus patient safety and patient outcomes can be compromised. Health care-associated complications may result from the omission of appropriate quality patient care. Domestic issues and changing policies affect patient care; Medicare and Medicaid services recently eliminated payment for hospital-acquired disease, these nosocomial infections include pressure ulcers or a urinary tract infection.

Research on specific routinely missed subsequently developed the MISSCARE Nursing survey tool to identify missed care, as well as determining reasons for missed care. This survey can be used at 6 to 12 month intervals to monitor improvement of nursing care at the point of delivery. Currently, with use of the MISSCARE Nursing Survey, a parent project has been implemented in a hospital system in the southwest United States; through a secondary analysis of the parent project data, the identification of delayed or missed nursing care and reasons for the missed nursing care can benefit the hospital system. With this statistical evidence, a dialogue can begin for policy change in order to improve patient satisfaction.

### **Literature Review**

In 2006, B. Kalisch, PhD, RN explored the topic of missed nursing care. The investigations had the specific aim of developing a novel quantitative and qualitative psychometric tool in order to determine what nursing care is regularly missed and why delayed care occurred<sup>3</sup>. Initially, the nurse researcher outlined a qualitative portion of a potential survey tool. The following criteria were developed. Data analysis must be specific to the type of study. Qualitative data provides information in order to understand populations as well as to address individuals' interpretations of experiences<sup>10</sup>. The qualitative study utilized focus groups in two northern United States hospitals; in total, 107 registered nurses, 15 licensed practical nurses, and 51 nursing assistants were interviewed<sup>3</sup>. The research team inquired during the interview sessions what care was omitted and reasons the nurses believed care was missed. Results revealed nine elements of missed care, including ambulation, turning, delayed or missed feedings, patient teaching, discharge planning, emotional support, hygiene, intake and output documentation, and surveillance<sup>3</sup>. The reasons for these omissions involved themes such as time management, staff shortages, and communication breakdowns within nursing teams and between support staff<sup>3</sup>. Information from this qualitative study provided a foundation for future research and development of a multi-faceted psychometric survey tool<sup>3</sup>.

Continuing to examine missed nursing care, Kalisch and Williams developed a quantitative survey used to identify missed nursing care<sup>4</sup>. Quantitative data from the MISSCARE survey was analyzed for accuracy as well as the strength of causal relationships<sup>10</sup>. The study aim was to understand the validity, reliability, and acceptability of the MISSCARE

survey tool; the quantitative survey was developed in phases<sup>4</sup>. The first phase in this study was to define the idea of missed care; with this reference point, the team moved through the next phase of developing the quantitative MISSCARE survey<sup>4</sup>. Item generation was based upon the qualitative investigations, and the validity of the survey was determined by three panels of staff nurse expert analysis<sup>4</sup>. Once the survey was formatted, it was administered to two sample populations. The first study included 459 staff nurses in two hospitals, and the second study had 639 staff nurses at a separate hospital<sup>4</sup>. The next phase involved collection of survey data; validity and reliability was evaluated with Statistical Package for the Social Sciences<sup>®</sup> (SPSS) analysis. Construct validity was determined by testing if the survey tool measured the factors for which it was designed to measure. This was assessed by its factor analysis. Factor analysis (with Varimax rotation) revealed communication, labor resources, and material resources as reasons for missed care. Validity of results was determined through one-way ANOVA and Bonferroni post-hoc analysis with an acceptable index (0.89)<sup>4</sup>. Identical forms of the survey tool were administered to the same nurses, two weeks apart (test re-test) in order to measure reliability<sup>4</sup>. Results provided evidence for a comprehensive quantitative and qualitative MISSCARE survey tool as well as inspiration for future studies involving evaluation of variability within and between hospitals.

After development of the MISSCARE survey tool, Kalisch and her team administered the survey in 3 hospitals, which included a sample of 459 nursing staff<sup>9</sup>. The study aim was to identify what nursing care is missed and the reasons for delayed care; data analysis involved variables both within and between hospitals. The survey tool was designed to be self-administered from anonymous respondents. Data analysis with SPSS<sup>®</sup> included: one-way ANOVA to compare variables, Bonferroni methods for post-hoc perspectives, and the Mixed

Model Analysis to find differences between care services<sup>9</sup>. Results showed that more than 70% of nurses reported omission of regular care; reasons for missed care involved labor resources (85%), material resources (56%), and communication (38%)<sup>9</sup>. Consistency was found between hospitals in terms of level of education, as associate degree nurses reported missing more care then baccalaureate-educated nurses<sup>9</sup>. The team determined that the MISSCARE survey tool could supply information of missed care, reasons for omission, and potential for practice changes for hospital systems to improve nursing care.

# **Specific Aim**

The focus of this study is a secondary analysis of a parent project's quantitative and qualitative data sets, which were collected through the parent project MISSCARE Nursing Survey. The following research aspects were addressed: (1) the amount and type of missed nursing care; (2) reasons for the missed care; (3) whether the type of missed care varied within and between hospital entities; and, (4) variances within and between types of hospital units.

# Methodology

# Project Design

In the parent project, nursing staff in 10 hospitals will be surveyed with the MISSCARE Nursing Survey tool in order to identify missed nursing care and reasons for delayed care; this is a descriptive investigation of variables within and between ten hospital entities. The parent project methods are a replication of the "Missed nursing care: Errors of omission" study by Kalisch and colleagues; the Institutional Review Board (IRB) for the hospital system has approved the following protocol regarding the MISSCARE Nursing Survey tool<sup>9</sup>. For this current secondary analysis, only the hospitals that have completed the survey will be included. There are 5 hospitals that have completed all data collection. Permission to use the survey was obtained and duplicated in a RemarkWeb® statistical survey program within the intranet of the corporate offices.

# Populations Sampled

The MISSCARE Nursing Survey was given to all nursing personnel in the hospital system who agreed to participate in this parent project. Education to promote the study was provided by the nurse researchers for at each of the hospitals. Nurse managers also were provided an explanatory PowerPoint to share with their nursing personnel. All nurse managers were asked to inform their nursing personnel that the email would be sent to them on the starting date. Participation in the parent project includes nursing staff at the hospitals; this includes

patient care technicians (PCTs), licensed vocational nurses (LVNs), unit secretaries and managers, as well as registered nurses (RNs) with associates degrees (ADN), baccalaureate degrees (BSN), master degrees (MS and MSN), and doctorate degrees (PhD). Exclusion criteria include non-nursing staff and nursing staff who choose not to respond to the survey.

This study has minimal-to-no risk for the subjects, as no identifiers are present in this data. Responses from the MISSCARE Nursing Survey can benefit the hospital system by revealing the reasons why nursing care is missed. This secondary analysis will provide data for nurses and hospital administrative personnel to discuss possible changes to enhance patient and nurse satisfaction. With priority on best practices, nursing staff job satisfaction and patient care has the opportunity to improve.

#### Instrumentation

The MISSCARE Nursing Survey tool has 2 parts, a quantitative and qualitative survey. The quantitative survey is designed for bedside nursing staff. The survey is separated into 2 parts. In Part 1, "Missed Nursing Care," the respondents are asked to check the amount of time care was missed on their unit by all of the staff (including themselves) using the scale "never," "rarely," "occasionally," "frequently," or "always." In Part 2, "Reasons for Missed Care," the respondents are asked to rate each reason using the scale "not a factor for missed care," "minor factor," "moderate factor," or "significant factor."

The qualitative survey is designed for specialty nursing staff. The survey has 2 openended questions; the first question asks the respondent to list all missed care in the last shift they worked, and the second question asks the respondent to identify reasons in which they believe care was missed in the last shift they worked. The qualitative survey asks the same demographical questions as the quantitative survey.

#### **Procedures**

The MISSCARE Nursing Survey tool was administered to 10 hospitals in the southwest region of the United States during the summer and fall of 2010. Depending on when the entity participates, nursing staff had approximately a month to complete the anonymous online survey. At each hospital entity, a specified clinical nurse specialist (CNS) and chief nursing officer (CNO) received a link to the MISSCARE survey tool in the IRB-approved email for both the quantitative portion and the qualitative portion. The email explained the purpose of the study, included the link to access the online survey, provided instructions on how to complete the survey, detailed confidentiality regulations, and offered contact information of the Principal Investigator, nurse researcher, and the IRB of the system.

The CNS then forwarded this email to unit nurse managers. The quantitative survey email was sent to all nursing personnel units who provide regular bedside care. The qualitative survey email was sent to all nursing personnel in specialty units, such as gastrointestinal laboratories (GI), emergency departments (ED), psychiatric care, and surgical units (OR), where in routine tasks are not provided. Once the CNS contacted the appropriate nurse managers, the managers invited staff nursing personnel to participate in the MISSCARE Nursing Survey. The unit managers employed their own distribution staffing list in order to send an email with a link to the survey. Available computers were distributed within the hospital system for use by nursing personnel.

#### Data Analysis

Data analysis began upon UNTHSC IRB approval. After proper transfer of data to Co-Investigator Mary C. Schuckhart, secondary data set was analyzed using a secure laptop. The secondary data set was under supervision of the nurse researcher at the hospital system. Sejong Bae, PhD, the statistical advisor at UNTHSC and the hospital system, was consulted regarding the analysis. Before analyses, data was checked and cleaned by Mary C. Schuckhart. Blank responses were taken into account in order to determine valid frequencies of each survey question. Using SPSS®, frequencies of data and analysis of variances was completed 11. Additionally, an ANOVA analysis discovered differences between and among different units and different hospitals.

For the demographic questions of the qualitative data, valid frequencies of responses were determined. Continuing with the qualitative analysis, the open-response questions were reviewed and analyzed with respect to the healthcare background of the following team members. The parent project Principal Investigator, who works as a bedside nurse, provided input as an active member of a nursing team. The study coordinator, and nurse researcher, has a doctoral degree in nursing and contributed an educational perspective with a special focus on research. Graduate student Mary C. Schuckhart, a newcomer to the nursing infrastructure, offered an objective outlook. After separately determining the elements of missed care and the themes relative to reasons for missed care, the team discussed each individual assessment. With a comprehensive approach, a consensus was determined for each qualitative response.

### **Results**

### Quantitative Results of Bedside Nurses

Across the five hospitals, a total of 572 bedside nurses completed the quantitative MISSCARE Nursing Survey. The survey was distributed to bedside units, including intermediate care, medical-surgical, renal care and procedures, rehabilitation and long-term care, maternity and women's services, intensive care (ICU), and oncology services. Units were organized into three categories, intermediate care, medical-surgical, and maternity services.

The nurses on the units were 93.6% females and 6.4% males with the majority being between 35 and 54 years old (54.4%). Most respondents had at least 10 years of experience in nursing (45.3%). Their highest educational level in nursing was an associates degree (ADN) (41.9%) or a baccalaureate degree (BSN) (37.6%). The majority worked at least 32 hours per week (88.4%). Most personnel were on Medical-Surgical units (66.6%), while 25.7% of nurses worked with the Intermediate Care units and 7.8% worked with Maternity/Women's Services (Table 1).

The majority of nurses were employed as a staff nurse (RN) (54.7%). Most respondents were satisfied with being a nurse or a nursing assistant (80.5%). A majority of the nursing personnel worked 12 hour shifts (91.4%) during the day (61.4%). The nurses cared for up to 6 patients (81.6%) during their most recent shift. During their shift, 89.1% had admissions of 3 patients or less and 90.3% discharged 3 patients or less. The nurses on the units felt that unit staffing was inadequate most of the time (52.4%) and felt satisfied with teamwork on current unit (73.3%).

Table 1. Sample Characteristics of Bedside Nurses

Item	Overall	ji -	Hospital	spital		
	550000000000000000000000000000000000000	1	2	3	4	5
Sample size	n = 572	n=148	n = 292	n = 9	n = 52	n = 71
Gender						×.
Female	93.6	90.5	95.1	100.0	92.2	90.1
Male	6.4	9.5	4.9	0.0	7.8	9.9
Years of experience					246240	335550
0-5 y	37.4	30.6	38.7	22.1	44.8	50.8
>5-10 y	17.3	17.4	18.4	11.1	20.4	19.4
>10 y	45.3	52.1	42.9	66.7	34.7	29.9
Highest nursing degree						
Diploma	13.0	12.3	8.4	22.2	12.2	10.0
Associate degree (ADN)	41.9	39.5	35.3	33.3	51.2	50.0
Bachelors degree (BSN)	37.6	38.6	48.7	33.3	29.3	38.0
Graduate degree in nursing	1.5	1.8	0.8	0.0	4.9	0.0
Degree outside of nursing	6.0	7.9	6.7	1.1	2.4	2.0
Job title/role					· ·	
Nurse assistant (aide, PCT)	15.1	19.6	15.8	0.0	13.5	26.8
Staff nurse (LVN)	22.1	0.7	1.4	0.0	5.8	2.8
Staff nurse (RN)	54.7	67.6	75.8	100.0	65.4	64.8
Nurse management	3.5	6.1	4.9	0.0	3.8	2.8
Other	4.5	6.1	2.1	0.0	11.5	2.8
Employment status		179145.60				
>32 h/wk	88.4	87.2	90.2	100.0	84.0	91.5
<32 h/wk	11.6	12.8	9.8	0.0	16.0	8.5
Unit						
Medical-Surgical	66.6	42.0	38.6	100.0	69.8	82.6
Intermediate care	25.7	44.1	56.3	0.0	16.3	11.6
Maternity/Women services	7.8	5.1	5.1	0.0	14.0	5.8

Values represent percentages unless designated as a number amount (n)

# Frequencies of Bedside Nursing Missed Care

The results of this secondary analysis show a notable amount of missed care in the hospital system. Interventions for basic care were missed by 45.7% of respondents, while interventions for individual needs were missed by 37.7% of the bedside nursing personnel. Planning, teaching, and education were missed by 42.1% of respondents, while assessments and monitoring were missed by 22.3% of the nursing staff (Table 2).

The 6 most frequently cited missed items of care were ambulation (67.8%), attending interdisciplinary care conferences (56.7%), turning patients (52.3%), mouth care (50.7%), medication administration within 30 minutes of scheduled time (46.6%), and patient teaching (46.0%). The least missed care was in the assessment category and included patient assessments performed each shift (7.4%) and bedside glucose monitoring (8.3%).

Table 2. Bedside Nursing Missed Care (Percentages)

Factor	Overall	1	2	Hospital 3	4	5
1. Assessment		199	- <del></del>	-	25.5	350
Vital signs assessed as ordered	24.4	18.1	21.6	22.2	32.0	28.1
Monitoring intake/output	35.2	27.0	34.3	33.3	41.7	39.5
Full documentation of all necessary data	45.5	37.1	51.8	33.3	50.1	55.2
Hand washing	13.5	7.8	17.3	11.1	14.2	16.9
Bedside glucose monitoring as ordered	8.3	4.8	11.1	11.1	6.1	8.6
Patient assessments performed each shift	7.4	7.9	11.4	0.0	8.3	9.5
Focused reassessment according to patient	18.1	13.6	20.9	11.1	15.2	29.8
IV site care and assessment according to hospital policy	25.8	21.3	30.0	11.1	29.8	36.9
2. Interventions – Individual Needs		***************************************	3500 MA 129	100000		
Medications administered within 30 min before or after scheduled time	46.6	56.3	50.2	11.1	53.3	62.1
Emotional support to patient and/or family	35.2	32.2	33.7	33.3	36.7	40.0
Response to call light is provided within 5 min	37.4	34.3	37.6	22.2	29.2	63.8
PRN medication requests acted on within 5 min	34.3	30.9	33.1	11.1	40.4	56.0
Assess effectiveness of medications	35.0	26.1	37.0	11.1	50.0	50.8
Assist with toileting needs within 5 min of request	40.3	40.6	41.3	22.2	36.9	60.5
3. Interventions – Basic Care						
Ambulation three times per day or as ordered	67.8	63.7	69.2	66.7	62.2	77.2
Turning patient every 2 hrs	52.3	53.9	55.6	22.2	56.5	73.2
Feeding patient when the food is still warm	45.8	38.5	50.4	25.0	52.2	62.7
Setting up meals for patients who feed themselves	32.7	24.9	34.0	37.5	33.4	33.8
Patient bathing/skin care	42.8	37.1	38.6	33.3	42.3	62.9
Mouth care	50.7	44.6	51.6	33.3	52.2	71.8
Skin/wound care	27.5	30.5	27.5	22.2	26.1	31.4
4. Planning		73t			4 20	
Patient teaching	46.0	38.4	51.9	44.4	48.9	46.3
Ensuring discharge planning	23.7	20.5	26.2	22.2	27.6	22.1
Attend interdisciplinary care conferences whenever held	56.7	51.4	56.6	62.5	67.4	45.5

# Reasons for Bedside Nursing Missed Care

Three factors were outlined in which to include the 17 reasons for missed nursing care. These included labor resources (63.2%), material resources (36.7%), and communication (31.9%). Labor resources included the top 4 items cited: unexpected rise in patient volume and/or acuity on the unit (69.7%), urgent patient situations (65.1%), heavy admission or discharge activity (64.9%), and inadequate number of assistive personnel (62.7%).

The two other factors were communication and material resources. Under the communication factor, unbalanced patient assignments (46%) was the most noted, while under the material resources factor, personnel cited unavailable medications (49.0%) as the main reason for missed nursing care (Table 3). The two least recognized reasons were communication factors; 22.6% of personnel cited that the appropriate caregiver was unavailable or off of the unit when needed, while 25.2% of respondents reported that tension or communication breakdowns with their support departments led to missed care (Table 3).

Table 3. Reasons for Bedside Nursing Missed Care (Percentages)

	60	Hospital				
Item	Overall	1	2	3	4	5
1. Communication	•					
Unbalanced patient assignments	46.0	49.0	44.6	22.2	42.6	71.4
Inadequate hand-off from previous shift or sending unit	33.3	26.6	30.1	22.2	37.8	50.0
Other departments did not provide the care needed	32.8	34.5	31.6	33.3	27.1	37.6
Lack of back-up support from team members	32.7	33.4	29.3	33.3	30.4	37.2
Communication breakdowns with support departments	25.2	29.5	31.4	11.1	23.4	30.4
Communication breakdowns within the nursing team	27.6	31.0	27.1	33.3	17.0	29.4
Communication breakdowns with medical staff	28.7	29.7	28.3	11.1	34.8	39.4
Assistant did not communicate that care was not done	38.1	36.2	36.6	44.4	23.9	49.2
Caregiver off unit or unavailable	22.6	18.5	23.1	22.2	14.9	34.3
2. Material resources	- 17		72		1 37	HATTI HE CONT
Medications were not available when needed	49.0	65.5	38.1	33.3	51.0	56.9
Supplies/equipment not available when needed	33.6	31.5	41.0	11.1	42.6	41.8
Equipment not functioning properly when needed	27.4	24.0	30.5	11.1	34.8	36.8
3. Labor resources	-01 2			*	300	
Level of staffing	53.5	53.2	56.5	22.2	64.0	71.4
Urgent patient situations	65.1	61.3	69.6	55.5	72.9	66.1
Unexpected rise in patient volume and/or acuity on unit	69.7	73.8	76.2	33.3	83.7	81.5
Inadequate number of assistive personnel	62.7	55.3	67.2	33.3	75.0	82.6
Heavy admission/discharge activity	64.9	69.3	69.9	33.3	75.0	77.2

# Differences by Hospitals

An analysis of variance (ANOVA) within and between the 5 hospitals showed consistency in missed nursing care. An examination of the varying factors with the number of omissions from each hospital did not reveal any significant differences: (1) assessment (P = 0.15); (2) individual needs (P = 0.06); (3) basic care (P = 0.06); and, planning (P = 0.05). Hospital 3 consistently had the lowest mean values, while Hospital 4 and Hospital 5 showed similar interactions ( $P_{45} = 0.99$ ) in each factor (Figure 1).

Conversely, there were differences in the reasons for missed nursing care between hospitals. Overall descriptive values show that communication problems were cited most by Hospital 2 ( $X_2 = 3.05$ ); material resources was more frequently reported by Hospital 4 ( $X_4 = 3.03$ ); and, labor resources were most problematic for Hospital 1 ( $X_1 = 2.62$ ). Analysis with ANOVA and F-test show that communication and material resources had highly significant variance between hospitals (P = 0.00) and that labor resources also had sufficient differences (P = 0.01). Multiple comparisons determine that Hospital 3 nurses reported significantly less problems with communication and material resources than the other hospitals.

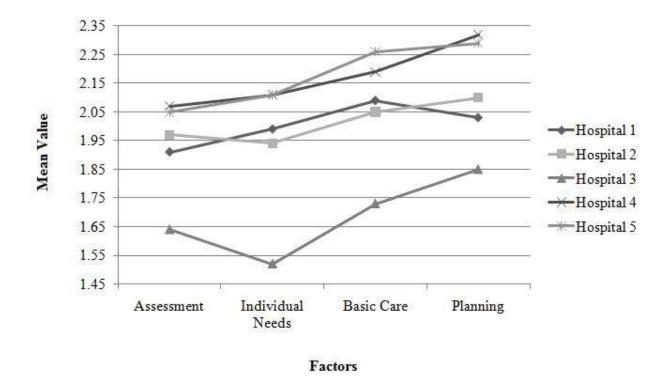


Figure 1. Missed bedside nursing care by hospital

# Differences by Unit

There were differences found between units in both missed care and reasons for missed care. Results from the ANOVA and F-test reported that missed care in individual needs (P = 0.00) as well as planning (P = 0.03) significantly varied between units. In each factor of missed care (assessment, individual needs, basic care, and planning), the medical-surgical units had the highest means. Furthermore, the multiple comparisons verified that the medical-surgical units missed more individual needs care than the intermediate care and maternity units ( $X_{\rm MS} = 2.10$ ,  $X_{\rm IC} = 1.90$ ,  $X_{\rm M} = 1.80$ ;  $P_{\rm MS,IC} = 0.01$ ,  $P_{\rm MS,M} = 0.02$ ). Concerning planning, medical-surgical units missed more care than intermediate units ( $X_{\rm MS} = 2.21$ ,  $X_{\rm IC} = 2.03$ ;  $P_{\rm MS,IC} = 0.03$ ).

Concerning the reasons for missed care, results from the ANOVA and F-test reveal significant differences between the units in labor resources (P = 0.00). Using multiple comparisons, intermediate care units reported more problems in labor resources than medical-surgical units ( $X_{\rm IC} = 2.61$ ,  $X_{\rm MS} = 2.41$ ;  $P_{\rm IC,MS} = 0.01$ ) (Table 4).

Table 4. Mean Differences of Missed Bedside Nursing Care and Reasons for Missed Bedside Nursing Care by Type of Unit

Factor	Service					
	Intermediate Care	Medical-Surgical	Maternity			
Assessment	1.93 ± 0.55	$2.02 \pm 0.63$	$1.92 \pm 0.55$			
Individual Needs	1.90 ± 0.62	$2.10 \pm 0.76$	$1.80 \pm 0.69$			
Basic Care	2.03 ± 0.64	$2.15 \pm 0.74$	$2.03 \pm 0.65$			
Planning	2.03 + 0.77	2.21 + 0.84	2.05 + 0.75			
Communication	$3.08 \pm 0.61$	$2.96 \pm 0.66$	3.04 + 0.61			
Labor Resources	2.61 ± 0.73	2.41 ± 0.83	$2.70 \pm 0.77$			
Material Resources	3.09 + 0.79	3.01 + 0.86	3.18 + 0.74			

# Qualitative Results

Within the specialty units in the 5 hospitals, 207 nurses completed the qualitative MISSCARE Nursing Survey. The personnel on the units were 88.3% females and 11.7% males with 34.9% between 45 and 54 years old. Most respondents had at least 10 years of experience in nursing (35.2%). Their highest educational level in nursing was a baccalaureate degree (BSN) (47.5%). The majority worked at least 32 hours a week (81.3%). Most nursing staff worked on Operating Room (OR)/Surgical units (36.5%), while the remaining worked on Emergency Departments (32.2%), Psychiatric Care (11.9%), Bedside Care (11.1%), and Gastrointestinal (GI)/Specialty units (6.9%).

The majority of nurses were employed as staff nurse (RN) (68.7%) and worked as an RN (43.1%). Almost a quarter of personnel worked as patient care technicians (PCT) (25.5%), while the remaining staff was management (22.1) or unit secretaries (9.3%). A majority of the nursing personnel worked 12 hour shifts (60.4%) during the day (66.6%). In the last three months, 33.7% of staff nurses missed at least one day or shift, while 71.1% of respondents worked overtime. The nurses cared for 9 or 10 patients per shift (40.5%).

The respondents were mostly satisfied in their current position (70.6%), and were satisfied being a nurse or nursing assistant (80.5%). The nurses on the staff did feel that unit staffing was inadequate most or all of the time (70.7%), yet most were satisfied with the teamwork in their current unit (72.2%). Most respondents were satisfied in their current position (70.6%), and were satisfied being a nurse or nursing assistant (80.5%). The nursing personnel majority did not have plans to leave their current position (80.3%).

# Elements of Missed Specialty Nursing Care

There were 12 total elements of missed care. The first 9 listed were categories of missed care outlined by Kalisch<sup>3</sup>, and the final 3 categories added by this current project:

### 1. Ambulation

Ambulation of the patients was an item of missed nursing care. Before ambulating, the nurse must review the patient's physical limitations, necessary medical equipment, and medication record. After assessment, ambulating can involve either transferring the patient into a wheelchair or supporting extremities if the patient can walk. One nurse stated that "assisting with ambulation" was a missed component. If the patient is ambulating, time is needed to continually check on the safety and level of fatigue of the patient; one response acknowledged the relevance of "getting the patients outside for recreation time, which is important on a locked unit."

### 2. Turning

Turning was another missed procedure by nursing staff. A bed-ridden patient requires turning every two hours. More than one caregiver is often involved in checking the location of tubes and drains and smoothing wrinkles in linen before manually turning in order to change the physical position of the patient (usually from resting on one shoulder to the back or other shoulder). One respondent stated routine omission of "repositioning/turning patients."

# 3. Delayed or missed feedings

Another item of missed care was delayed or missed feedings. All patients must be monitored in case of choking, vomiting, or refusal to eat. On one unit, a staff member noted the overlook of "feeding admitted patients." Patient well-being was compromised; for example, another nurse commented on the failure to provide "water and food that increase satisfaction."

### 4. Patient education

Thorough patient education was an item of missed nursing care. This entails time to explain to the patient his or her medical care, laboratory procedures, test results, health status, and individualized care plans. A caregiver stated that "updating patients and families" was sometimes discounted. Comments by nurses indicated that "one-to-one time with the patient [and] education" was often compromised, and that lack of time with patients led to an "inability to do teaching."

# 5. Discharge planning

Another area of missed care was discharge planning. Individualized discharge plans are necessary, and one respondent stated that "effective discharge instructions" was missed. Follow-up care is provided in written and verbal instructions, but many nurses felt this was not given sufficient attention. For example, a nurse stated inadequacy in "making sure the patient and family have a complete understanding of all post-operative care."

# 6. Emotional support

The nursing staff also missed emotional support for the patient. In order for the nurse to serve an advocate for the patient, nursing personnel must understand individual physical and mental conditions. Selected responses admitted to the following omissions: "listening to patient

concerns," "time to spend with patients, making them feel important," and "attending to comfort measures."

# 7. Hygiene

Hygiene care was an area of care missed. Hygiene involves bathing the patient, keeping the patient clean, completing mouth care, and basic sanitary procedures of the patient's area. For example, one nurse stated that "changing soiled briefs/linens immediately" was overlooked.

Another response revealed problems with completing "restroom assist in a timely manner."

# 8. Intake/output documentation

Documenting and measuring intake and output (INO) was another item of missed nursing care. This area of concern involves recording the amount of food and water the patient ingests and expels. A nurse stated missing "getting water for patients," while another admitted general insufficiency with "intake and output."

# 9. Surveillance

Surveillance of the unit and patients provides early identification of urgent patient needs. Hospital policy requires that nursing staff make rounds of their patients continually. Personnel stated that "rounding" was often undone and that nurses did not spend "not enough time in each room."

### 10. Documentation

Missed documentation was added on by this study as this area was not addressed by the outline by Kalisch. Documentation includes missed and/or delayed orders, chart deficiencies, computer literacy, shift communication, and time management. Related responses included

these themes: "some nurses are not completing admissions and leaving the work for the next shift," "many things are documented that are not actually done," "nurses typically do not report anything on a peer or someone higher in demand," and, "some labs and x-rays have been delayed."

#### 11. Assessment

Assessment was also introduced by this study. The area of assessment missed care involved 4 subthemes: (1) preparing proper treatment plans; (2) recording vital signs; (3) assuring safety checks; and, (4) providing for the basic needs of the patient. For instance, one source stated that there were "delays in treatment and delays in initiating standing protocols." Additional references indicated missed "patient vital sign monitoring during IV sedation cases," or that "new admissions may not have the proper safety checks done." Examples of missed basic care included wound care, review of records, skin assessments, and timely responses to call lights.

### 12. Medications

The item of missed or delayed medications was the last missed care theme added to this study. Delivering the correct medications at the right time to the patient involves coordination of the hospital system. A nurse reported missing "timely medication administration," while another admitted that "often medications do not get entered on admission, and patients miss two days of medication."

Themes of Reasons for Missed Specialty Nursing Care

Previous studies by Kalisch and her research team determined 7 themes of reasons for missed care: (1) too few staff; (2) time required for the nursing intervention; (3) poor use of existing staff resources; (4) "It's not my job" syndrome; (5) ineffective delegation; (6) habit; and (7) denial<sup>3</sup>. Responses from this study introduced new evidence regarding reasons for missed care; definitions of the 7 themes were expanded with this supplementary information.

# 1. Too few staff

The nursing personnel reported short-staffing as a main reason for missed care.

Respondents often felt overwhelmed or rushed and cited causes of staffing issues, including insufficient staff-to-patient ratio and sudden urgency in work demands. Numerous responses were related to the staff-to-patient ratio: "not enough staff to cover the unit," "patient load," "rushed turnaround of cases," and, "inadequate staffing and unrealistic demands." One nurse reported missed care due to involvement with "high acuity of patients with more critical needs."

# 2. Time required for a nursing intervention

Responses indicated that inadequate time management facilitated missed nursing care. Four sub-themes were reported: (1) attention for time-consuming procedures; (2) inconsistent plans or schedules; (3) lack of computer/electronic medical recording skills; and, (4) distracted and/or forgetful mindsets. For the first sub-theme, one response cited "having to take care of the

most serious patients" as a reason for missed less-urgent care. Another personnel contributed "trying to keep up after shuffling the schedule" to delay in tasks.

The two remaining sub-themes involved time management situations. Comments regarding the electronic medical record system, Care Connect, were common: "don't know how to do things in 'Care Connect,'" "majority of time is spent on computerized charting," "computers are not easy to navigate," or "fixing mistakes people made in Care Connect." Participants cited feelings of burnout, exhaustion, and lethargy. For example, a nurse mentioned an "apathetic staff" and "weariness," while another reported "laziness on some nursing and staff." One case stated that "after I leave a room, a family member or patient calls me for something else, and I forget the first thing I was supposed to do."

# 3. Poor use of existing staff resources

Another theme reported was the mismanagement of hospital resources. Nursing personnel identified 5 factors responsible for system oversights. The first sub-theme was a limited availability of support staff, usually technicians. For example, a respondent stated that the shortage of technicians contributes to "too much put on the nurses and not enough ancillary staff." One nurse addressed this issue and suggested to "help your support staff learn and do more and more would get done." Other subthemes included a narrow focus on numbers with regard to patients assignments, unpredictable patient cases each shift, unavailable equipment or supplies, and complicated hand-off situations shift-to-shift and from different units.

# 4. "It's not my job" syndrome

Care was also missed when job expectations were disputed within the nursing team.

Nursing assistants and technicians believed certain responsibilities could be completed by their

team. One patient care technician felt care responsibilities were "all about the nurses" and that "this is a very unfriendly tech hospital." Conversely, nursing personnel considered various other care-related tasks were not the responsibility of support staff members. For example, a nurse explained that, "the longer you are a nurse, the farther away from the patient you get... nurses are documenting while techs/aides are touching the patient." Misunderstood job descriptions created gaps in diligence.

# 5. Ineffective delegation

Unproductive individual efforts and incapable teamwork were reported as another theme of missed care. One respondent felt that "poor communication between floors, nurses, and patients" led to missed care. Nursing personnel felt that incompetent management and unreliable communication contributed to a flawed delegation system. Another nurse stated that their team relied "too much on looking at the computer rather than talking to each other."

### 6. Habit

Nursing personnel contributed habit, or becoming accustomed to not completing some tasks, as a reason for missing care. Staff reported that after an initial omission, the tendency for repeated negligence became easier over time. For example, one nurse revealed that it is "hard to always get 100%" of care completed. Additional comments which supported this theme included that the staff "don't care" and are "not critically thinking,"

### 7. Denial

The final theme was an inclination of the staff to dismiss and deny that nursing care was missed. One nurse was "not sure" why care was missed. Furthermore, many personnel did not doubt the diligence of their unit and stated that "none" of the care was missed, claiming that this

portion of the survey was "not applicable." Nursing staff similarly noted that delegated care was often assumed to be completed by other team members, and that the flow of command did not receive proper follow-up. For instance, one nurse stated that there is an "assumption that someone has done it," while another illustrated that the "techs do not confirm with the nurse what is ordered,"

#### **Discussion**

The findings of this secondary data analysis are similar with Kalisch as well as previously cited sources of research<sup>7,9,12,13</sup>. Results of this study led to the conclusion that missed nursing care jeopardizes patient outcomes by influencing the patient in basic care, individual needs, and health education. Missed nursing care impacts not only patient satisfaction, but also has implications on nursing practice and system-wide management policies<sup>14</sup>.

The occurrence of missed basic care, such as ambulation or turning, has been shown to negatively affect patient outcomes. Ambulating patients affects mobility; physical activity and extremity movement significantly decreases patients with severe joint pain<sup>15</sup>. Additionally, when turning is missed, the patient can develop a pressure ulcer; in 2000, these wounds over bony prominences affected 5 million patients, yet accounted for \$26 billion of health care costs<sup>16</sup>. With regards to these findings, this project concluded that missed nursing care has adverse implications with the quality and cost of care.

Of particular interest are results from the multiple comparisons, as reported by the bedside nursing staff. With regard to missed nursing care, the 5 hospitals showed consistency in the factors of omission. This shows a system-wide predicament which requires further inquiry. From another perspective, there were significant differences between units in missed care. Specifically, the medical-surgical unit staff missed more care in individual needs and planning. Medical-surgical units are concerned with surgery, oncology, and rehabilitation, and the staff

misses individualized treatment plans (i.e. emotional support, timely response to requests, medications, teaching, and discharge planning) for these patients.

Concerning the reasons for missed care, there were significant variances between hospitals in every factor. Each hospital reported different variables which impact patient outcomes. Additional interest is needed to determine the particular needs within the system. Between units, there was only a sufficient difference within the problem of labor resources. For instance, the intermediate care units reported more difficulty with labor resources than medical-surgical units. Intermediate unit nurses provide care which includes cardiac step-down programs, intensive care treatments, or renal procedures, and they find significant difficulty with their level of staffing, urgency in patient situations, and unexpected increased acuity.

Results of this study revealed implications for the practice of nursing, requiring attention and action by the hospital system. Within the nursing team, the concept of practice responsibility connects health care knowledge, ethical guidelines, and job-related skills<sup>14</sup>. Knowledge is gained through formal education; ethical guidelines are established by federal regulations; experience develops and supports nursing skills. Yet, despite an appropriately prepared curriculum, responses from this study confirm that nursing care is routinely missed. Competent practice responsibility exists, but is not actualized in the workplace. Contributing to missed care was the level of staffing, variances in workload, and admission/discharge activities. For proper assessment of these labor resources, communication skills in coordination and collaboration are essential<sup>13</sup>. Continual evaluation of practice responsibility and individual accountability promotes efficient delegation<sup>1</sup>.

Hospital systems are complex and depend on contributions from effective personnel<sup>1</sup>. Effective nursing teams synthesize their overall intelligence, critical-thinking abilities, and clinical judgments to provide adequate care. A nurse is expected to get the right tasks completed; a nurse is expected to be effective. Competence is attainable when the nurse can give attention to the ultimate goals of the health care system. With daily efforts and tasks in perspective, a caregiver has the ability to understand personal responsibility and potential contributions<sup>1</sup>. With this reference point, nursing personnel can gain insights into evolving standards, possible changes, and process-based innovations.

## **Implications**

The findings of this secondary data analysis outline a multi-faceted problem with implications for the practice of nursing and hospital policy. Interventions must be initiated by the system in order to improve upon the current quality of care. In the same way, future evidence-based investigations, as well as possible research projects, are encouraged from both the results and limitations of this study<sup>17</sup>.

To improve patient satisfaction, innovative policies must be implemented by an effective management board. The American Nurses' Association states that nursing practice is committed to the health, well-being, and safety of the patient 18. Equally important, if nursing personnel are aware of factors in the system which threatens patient outcomes, the nurse has an ethical obligation to report these factors 18. This study highlights specific areas of concern, consequently involving management; institutional policy needs to change in accordance with this evidence.

New directions should focus on the processes towards achieving goals 1. There are a few possible innovative mindsets: (1) measure outcomes based on methodology instead of tasks; (2) value process teams rather than the standard functional units; (3) empower the nursing staff; (4) commit to a productive, not protective, organizational culture 19.

Evidence from this study has implications on future research. Conclusions indicate that for minimal missed care, nurses require additional time. Initial efforts need to clarify job

descriptions within the nursing team. When all responsibilities are explained, the nursing team then has a mutual understanding of individual expectations<sup>1</sup>. This facilitates a structure for efficient delegation as well as an opportunity to improve plans for specific situations<sup>13</sup>.

Additionally, attention on individual accountability encourages effective time management, productive collaboration, and reliable documentation<sup>1,13</sup>. Communication preferences of each team member should be valued in order to tailor continuing educational programs as well as joint performance<sup>13,20</sup>. Once nursing staff adequately assess individual and group expectations, the team can outline communication strategies for the purpose of effective time management.

The limitations of this secondary study were associated with the parent project, data analysis, and knowledge resources. Differing response rates from each hospital suggests disparities between managers and their emphasis on promoting the survey. Despite assurances of confidentiality, responses from the quantitative comment reports or the qualitative questions were often vague or did not address the particular issue. The research team's varying knowledge levels of the nursing profession led to challenges in data interpretation. The author of this manuscript, Mary-Colette Schuckhart, has very limited experience in the nursing dynamics and needed to draw from multiple resources for appropriate comprehension.

#### CHAPTER III

#### GENERAL INTERNSHIP EXPERIENCE

# MISSCARE®® Nursing Survey Tool

I will email the clinical research nurse at each of the ten entities with both the quantitative and qualitative portions of the MISSCARE survey tool. Additionally, I will maintain communication in order to keep record of when the entity begins to administer the survey. After one month, nursing staff access to the survey will be closed; at this point, the data can be downloaded for statistical analysis.

After each of the entities complete the survey, my responsibilities include downloading the data from the RemarkWeb® statistical program, uploading the data into SPSS®, and then organizing the data entries. Frequency analysis will be made of nursing staff demographics, including type of unit, education level, health care experience, and time of shifts; classification of types of missed care and reasons for omissions and delayed care will also be organized. I will use various program analyses with SPSS®, including t-tests and one-way ANOVA analyses to determine the strength of variance within and between the 10 hospitals and the different unit types in the hospitals.

## Multi-center, Prospective, Controlled Medical Device

In addition to my participation in the MISSCARE study, at another hospital entity, I will be actively involved in medical device study. I have been added as a "Research Assistant" to the protocol and am in communication with the Principal Investigator at the entity as well as the sponsoring company. I have been trained with the Collaborative Institutional Training Initiative (CITI); I have also been HIPAA trained and educated of the hospital entity's confidentiality protocols. My responsibilities include interaction with human subjects, management of daily subject questionnaires, and evaluation of the study device. I have recruited patients, conducted the screening process according to the protocol's explicit inclusion/exclusion criteria, administered the informed-consent process, obtained the signed informed consent document, and randomized the study device. To support the study, I created and implemented an educational in-service program for staff; I also organized and updated study-related documents for Case Report Form (CRF) completion and submission to the sponsor company. Along with the PI and the Clinical Research Associate (CRA) of the study, I aided in reviewing and resolving queries during an on-site monitoring visit.

#### **Coordination with Collaborating University Projects**

To understand the clinical research management process, I have been in communication with collaborative institutions, as well as a variety of principal investigators, clinical research specialists, biomedical engineers, grant-writing specialists, BSN, MSN, and DNP nursing students. My responsibilities include managing honors nursing students' studies; I maintained communication, accountability, and educational expectations of multiple research projects.

Along with coordinating team meetings for different studies, I educated team members regarding data collection, notebook organizations, and proposal write-ups. With concentrations on weekly communication to determine each project's progression, I wrote and co-authored poster presentations and manuscripts submitted for publication. I have edited proposal manuscripts through grammar review, proper format structuring, and literature reviews and designed poster templates for dissemination of information. With the RemarkWeb® statistical program, I directed and reviewed students' data in order to supplement proposal manuscripts from a clinical research perspective.

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#### **APPENDIX**

# Clinical Research Management Internship Weekly Journal

#### WEEK #1

## Tuesday, June 01, 2010

Texas Health INGENUITY – Phase IV Device Study Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 930-1130a: Rounds to ICU & CVICU
  - o Introduced to a multi-faceted approach to patient care
  - o Process involves nurses, physicians, nutritionists
- 12noon: Lunch with Dr. Kathy Baker & Les Rodriguez
- 1-2p: Conference Call with Covidien
  - Overview of study protocol SCD Comparison Study
  - Decided to include me as a "Research Assistant"
- 2-3p: Conference call with VPA task force
  - Watched "CareTube" video
  - Brainstormed strategies to implement novel VPA online system (problem of compliance by physicians)
- 3-4p: Tour of Hospital Facilities
  - Elevator A: "Action" = where the research team meets with patients for screening & informed consent process
  - Elevator D: "Deliberation" = Nursing Administration
- 4-515p: Meet with Subjects
  - o 118: Shadowed questionnaire for Day 1 PM
  - o 119: Watched the administration of N & K sleeve

#### Wednesday, June 02, 2010

Texas Health INGENUITY – Phase IV Device Study

Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 8 9a: Meet with Subjects
  - o 118: Conducted questionnaire for Day 2 AM
  - o 119: Conducted questionnaire for Day 1 AM
- 10 10:45am: Shadowed Informed Consent Process
  - o 115: Consented for Study

- Notes Remember to screen for physical inclusion criteria before beginning to explain detailed informed consent form
- 11 -12noon: Labeled Study Binders
- 12noon: Lunch with Nursing Administration staff
- 1 1:30p: Shadowed Informed Consent Process
  - 116: Consented for Study
  - Notes Keep in mind possible family members in waiting room; pay attention to the mood of the subject during process; remember my self-assurance in the consent process
- 1:30 3:30p: Realized binders were mislabeled
  - o Retraced steps to ensure duplicate subject numbers were not distributed
  - o Removed & replaced appropriate forms/booklets
  - o Read protocol for adjusting mislabeled information
- 3:30 4:30p: Worked on Journal Entries
- 4:30 5:30p: Meet with Subjects
  - o 114: Conducted PM questionnaire
  - o 115: Had not worn sleeves since noon; notified staff

## Thursday, June 03, 2010

Texas Health DILIGENCE – Descriptive Survey Study

- 9 11a: Introduction to Study & Resources
  - Remark Web Both quantitative & qualitative
  - UpToDate Online
  - o SPSS
- 11a 1:30p: Personal Research & Development
  - Statistics & SPSS
    - Notes from: SPSS George, D. & Mallery, P. (2000) SPSS for Windows.
       Massachusetts: Allyn & Bacon. 73 141.
      - Basic Statistical Definitions
      - Procedures with SPSS
    - Notes from: Salkind, N. (2007) Statistics for People Who (Think They)
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      - T-Tests
      - One-Way ANOVA
  - MISCARE Studies Review

- Notes from: Kalisch, B. J. (2006). Missed Nursing Care: A Qualitative Study. Journal of Nursing Care Quality. 21(4) 306-313.
- Notes from: Kalisch, B. J., Williams, R. A., (2009) Development & Psychometric Testing of a Tool to Measure Missed Nursing Care. *Journal of Nursing Administration* 39(5) 211-219.
- Notes from: Kalisch, B.J., Landstrom, G., Williams, R. A., (2009). Missed Nursing Care: Errors of Omission. *Nursing Outlook* 57 3-9.
  - Methods: Descriptive Design
  - Data Analysis: Statistical Package for the Social Sciences (SPSS)
    - o Examined with frequencies & percentages of the variables
    - One-Way ANOVA differences between hospitals, service, years of experience, shift worked, full/part-time, & education
    - o Bonferroni Post-hoc analysis for group differences
    - Mixed Model Analysis test for significant differences in services
- 1:30 230p: lunch with Dr. Deborah Behan
- 2:30-4p: Learn more concerning communication of evidence-based medicine in the hospital setting

## Friday, June 04, 2010

Texas Health DILIGENCE – Descriptive Survey Study

- 7:30 10:30a: Attended IRB Meeting
  - Observed communication concerning informed consent language/wording,
     reporting adverse events, and ideas to improve upon group efficiency
- 10:30 11a: Meet with David Chen (IRB Coordinator & Auditor)
  - Discussed his role in the IRB
  - Expanded dialogue about the clinical research job family
- 11a 3p: Personal Research and Development
  - Organized daily journal
  - Continued literature review concerning MISSCARE
  - Outlined email to sent to participating entities for the Survey Study
  - Began draft of research proposal

#### WEEK #2

# Monday, June 07, 2010

Texas Health INGENUITY – Phase IV Device Study

Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 8 10a: Personal Research & Development
  - Notes from: DiCenso, A. et al. (2005). Evidence-Based Nursing: A Guide to Clinical Practice. St Louis MO: Elsevier Mosby.
    - Finding Evidence
    - Systematic Reviews
    - Qualitative & Quantitative Research
- 10—11:30a : Notes on Nursing
  - Researched & organized the nursing job family
  - Outlined different educational routes
    - Diploma Hospital-Based
    - Associate Degree (ADN)
    - Bachelors of Science in Nursing (BSN)
    - Master of Science in Nursing (MSN)
    - Doctor of Philosophy in Nursing (PhD)
  - Defined a few nursing professions
    - Registered Nurse (RN)
    - Clinical Nurse Specialist (CNS)
    - Clinical Nurse Leader (CNL)
- 11:30a 12noon: Personal Research & Development
  - Notes from: Burns, N and Grove, S. (2003) Understanding Nursing Research –
     Third Edition. Philadelphia PA: Saunders.
    - Quantitative Research Process
    - Measurement & Data Collection in Research
    - Understanding Statistics in Research
    - Qualitative Research
    - Using Research in Nursing Practice Goal of Evidence-Based Practice
- 12noon 1p: Lunch
- 1 4:30p: Continued Personal Research & Development

- Notes from: Burns, N and Grove, S. (2003) Understanding Nursing Research Third Edition. Philadelphia PA: Saunders.
- 4:30p: Delivered study device to surgical center of hospital for Subject 115

#### Tuesday, June 08, 2010

Texas Health INGENUITY – Phase IV Device Study

Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 8 11a: Brainstorm Recruitment for Device Study
- 11 11:30a: Meet with Subject 117
  - Conducted informed consent process
  - Supervised by Les Rodriguez
- 11:30a -1p: Lunch with Marsha Brown, MS (Director of Research Development) & David Chen, BSN (IRB Monitor & Audits)
- 1-1:15p: Prepare study sleeve for subject 117
- 1:15 2p: Draft emails for managers involved with MISSCARE study
- 2 4:45p: Organize potential questionnaire for future device study

## Wednesday, June 09, 2010

- 9:30a – 1p: Nurse Researcher Meeting (THREI) & Research Consortium

#### Thursday, June 10, 2010

Texas Health DILIGENCE – Descriptive Survey Study

Mentor: Deborah Behan, PhD, RN-BC

- 10a 1p: Meet with Dr. Deborah Behan
- 1p: Lunch with Dr. Deborah Behan
- 2 5p: Organize online Survey for each entity

#### Friday, June 11, 2010

Texas Health DILIGENCE – Descriptive Survey Study

- 9a: Meet with engineering group at University of Texas at Arlington
- 1p: Lunch with Dr. Deborah Behan
- 2 4:30p: Meet witho MSN nursing student intern
  - Outlined her study questions
  - Organized data with SPSS

#### **WEEK #3**

#### Monday, June 14, 2010

Texas Health INGENUITY – Phase IV Device Study

Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 8 10a: Researched pressure ulcers
- 10 11a: Meet with Subjects 116 & 117
- 11a 12noon: Work on Proposal
- 1 2:30p: Organize Study Binders/Booklets
- 2:30 3:30p: Develop Power Point for weekend nurses "How to Follow-Up Study Care"
- 3:30 4:30p: Work on Proposal
- 4:30p: Meet with Subject 116

### Tuesday, June 15, 2010

Texas Health INGENUITY – Phase IV Device Study

Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 8a: Meet with Subject 116
- 8:30 11a: Research the Organization of THR
- 11 12noon: Evidence-Based Council Meeting
- 1 4p: Research the Organization of THR
- 4p: Meet with Subject 116

#### Wednesday, June 16, 2010

- Self-directed Study: Organize proposal, research evidence-based practices, updated journal and my "internship event" calendar

#### Thursday, June 17, 2010

Texas Health DILIGENCE – Descriptive Survey Study

- 9 10a: Evidence-Based Practice Research Council (HEB) meeting
- 10a 1:30p: Organize "MISSCARE" Survey emails

- 1:30 2:30p: Lunch with Dr. Deborah Behan
- 2:30 4p: Continue to organize "MISSCARE" Survey emails; networked to meet with additional research staff

### Friday, June 18, 2010

Texas Health DILIGENCE – Descriptive Survey Study

- 9:30 11a: Evidence-Based Practice research
- 11a 12noon: Lunch with Dr. Deborah Behan
- 1 3p: "Smart Hospital" meeting at University of Texas at Arlington
  - o Dr. Deborah Behan
  - Alan Bowling, MS, PhD Assistant Professor, Department of Mechanical and Aerospace Engineering (UTA)
  - Mehrdad Nourani, MS, PhD Associate Professor, Department of Electrical Engineering (UT at Dallas)
  - Carolyn Cason, RN, PhD Associate Dean for Research and Director for Nursing Research (UTA)
- 3 4p: Organize schedule for next week

#### WEEK #4

#### Monday, June 21, 2010

Texas Health DILIGENCE – Descriptive Survey Study

Mentor: Deborah Behan, PhD, RN-BC

- 10 – 11a: Evidence-Based Practice Fellow Meeting

#### Tuesday, June 22, 2010

Texas Health DILIGENCE – Descriptive Survey Study

Mentor: Deborah Behan, PhD, RN-BC

- 9a 1p: Organized the survey for each center with the RemarkWeb® online statistical program
- 2 3p: Collaborated with teams for weekly communication to determine progression of each study
- 3 5p: Received "Practicum Proposal" feedback from committees

## Wednesday, June 23, 2010

- 10a 12:15p: Meeting with Teresa Turbeville at TH Dallas
  - Administrative Director of Research (THR)

#### Thursday, June 24, 2010

Texas Health INGENUITY – Phase IV Device Study

Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 9 9:30a: Meet with Subject
- 9:30 12noon: Communicate with Nursing Interns concerning deadlines
- 1 2:30p: Research electronic health records
- 2:30p: Screen potential subject
- 2:30 -4p: Work on proposal develop outline for appendices
- 4p: Meet with Subject
- 4:30p: Conduct "informed consent process" for potential subject

#### Friday, June 25, 2010

Texas Health DILIGENCE – Descriptive Survey Study

Mentor: Deborah Behan, PhD, RN-BC

- 8:30 – 10a: Nursing Quality and Improvement Council (NQIC) Meeting

#### WEEK #5

#### Monday, June 28, 2010

Texas Health INGENUITY – Phase IV Device Study Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 8 10:15a: Edit power point for "Study Device Education" for weekend nursing staff
- 10:15a: Deliver Study Device to pre-surgery unit
- 10:15a 3p: Design "Study Device Education" display board to be presented for weekend nursing staff

#### Tuesday, June 29, 2010

Texas Health INGENUITY – Phase IV Device Study

Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 9 9:30a: Meet with Subject
- 9:30 12noon: Design "Study Device Education" supplementary flyer for weekend nursing staff
- 12noon 1p: Lunch with Les Rodriguez and Dr. Kathy Baker
- 1 4p: Research and organize notes on evidence-based practices

#### Wednesday, June 30, 2010

**UNT Health Science Center** 

Mentor: Patricia Gwirtz, PhD

- 2 4p: Clinical Research Management Meeting
  - Received notes on "Practicum Proposal"
  - Need to register for Fall 2010 semester

#### Thursday, July 01, 2010

Texas Health INGENUITY – Phase IV Device Study

Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 9 10a: Meet with Subjects
- 10a 12noon: Edit "Practicum Proposal"
- 1 1:30p: Introduce study project to nursing staff with "Study Device Education" poster
- 1:30 3p: Work on "Practicum Proposal"
- 3 4p: Meet with Subjects

# Friday, July 02, 2010

Texas Health INGENUITY – Phase IV Device Study

Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 7:15 8:30a: Introduce and explain study project to nursing staff with "Study Device Education" poster
- 8:30 9a: Meet with Subjects
- 9a 2p: Work on "Practicum Proposal" and continue literature review
- 2 2:30p: Meet with Subjects

#### **WEEK #6**

# Monday, July 05, 2010

Texas Health INGENUITY — Phase IV Device Study Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 9 10a: Meet with Subject
- 10a 3p: Continue with edits to "Practicum Proposal"

# Tuesday, July 06, 2010

Texas Health INGENUITY — Phase IV Device Study Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 9 11a: Review the process of an "Educator Survey"
- 11a 2p: Organize the nursing job family

### **WEEK #7**

#### Monday, July 12, 2010

Texas Health INGENUITY — Phase IV Device Study Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 9 10a: Conducted screening and informed consent process for Subject
- 10a 12noon: Continue edits to "Practicum Proposal"
- 1 3p: Meet with Anesthesiologist for proposed study
- 3 4p: Conducted screening and informed consent process for Subject

## Tuesday, July 13, 2010

Texas Health DILIGENCE – Descriptive Survey Study

Mentor: Deborah Behan, PhD, RN-BC

- 8 9a: Managing data with RemarkWeb® with Dr. Deborah Behan
- 10a 1p: Meeting with Biostatistics professor at UNT Health Science Center
- 1 4p: Analyzing data with SPSS®

#### Wednesday, July 14, 2010

Nurse Researchers Consortium Meeting

#### Thursday, July 15, 2010

Texas Health DILIGENCE – Descriptive Survey Study

- 9 10a: Coordinate format for honors nursing student manuscript to be published
- 10a: Manage schedule for MISSCARE Survey Study
- 10a 3p: Directed honors student on survey set-up within the RemarkOffice® statistical program
- 3 4p: Concentrated on communication with various teams to determine progression of each study

#### **WEEK #8**

### Tuesday, July 20, 2010

Texas Health INGENUITY – Phase IV Device Study

Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 9a: Begin reviewing and editing honors nursing student poster and proposal
- 11a 123op: Attend "Evidence-Based Practice Council" meeting
  - o Brainstorm ideas to promote a "Journal Club; design questionnaire for nurses
- 2 3p: Introductions to Operating Room
- 3 6p: Revise and complete "Practicum Proposal"

### Wednesday, July 21, 2010

Texas Health INGENUITY – Phase IV Device Study

Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 9a 11a: Maintained communication, accountability, and educational expectations of multiple research projects
- 11a 2p: Literature review of business management and clinical research

#### Thursday, July 22, 2010

Texas Health DILIGENCE – Descriptive Survey Study

Mentor: Deborah Behan, PhD, RN-BC

- 9a 2p: Complete literature review of evidence-based telemetry practices
- 2 3p: Design template for poster presentation
- 3 330p: Investigate the "Fort Worth Life Sciences Coalition"

# Friday, July 23, 2010

Texas Health DILIGENCE – Descriptive Survey Study

- 9:30a 2p: Meeting with Masters of Nursing student
- 2 3p: Complete literature review on anesthesia processes
- 3 63op: Analyzed frequencies and variances for MISSCARE Survey Study with the Statistical Package for the Social Sciences ® (SPSS) program at the University of Texas at Arlington (UTA)

#### WEEK#9

#### Monday, July 26, 2010

Texas Health INGENUITY – Phase IV Device Study Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 9 11a: Research devices used during anesthesia process
- 12noon 2p: Organized and updated study-related documents; maintained device accountability
- 2 6p: Analyzed frequencies and variances for MISSCARE Survey Study with Microsoft Excel

### Tuesday, July 27, 2010

Texas Health INGENUITY – Phase IV Device Study Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 9a 4p: Sponsor company on-site visit
  - Completed Case Report Forms (CRFs) and submitted data to the Clinical Research Associate (CRA)
  - o Reviewed and resolved any queries

#### Wednesday, July 28, 2010

Texas Health INGENUITY – Phase IV Device Study

Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- 9 10a: Read and note article concerning clinical research leadership
- 10 1p: Coordinate notes on statistical analysis for masters nursing student
- 1 5p: Analyzed frequencies and variances for MISSCARE Survey Study with Microsoft Excel

#### Thursday, July 29, 2010

Texas Health DILIGENCE – Descriptive Survey Study

- 10a 1p: Review and revise resume and CV for meeting with Teresa Turbeville and Marsha Brown
- 1 2p: Edit "Practicum Proposal"

# Friday, July 30, 2010

Texas Health DILIGENCE – Descriptive Survey Study

- 8 830a: Assisted team (honors student and contributing masters student) in SPSS® organization for data entry
- 830 10a: Attend Quality Improvement Committee meeting
- 10 1130a: Brainstorm and develop ideas for "patient education" innovation
- 12noon 1p: Meeting with Teresa Turbeville and Marsha Brown
- 1-3p: Organize MISSCARE Survey data

#### WEEK#10

## Monday, August 02, 2010

Texas Health INGENUITY – Phase IV Device Study

Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

## Tuesday, August 03, 2010

Texas Health INGENUITY – Phase IV Device Study

Mentor: Les Rodriguez, MSN, MPH, ACNS-BC, CPAN

- Created questionnaire card for additional device study
- Submit proposal to committee for edits

## Wednesday, August 04, 2010

## Thursday, August 05, 2010

- Contacted the Director of Surgical Services in order to facilitate additional device study
- Discussed MISSCARE data with Dr. Deborah Behan
- Clarify terms with the team
- Compare existing literature research

## Friday, August o6, 2010

#### Fort Worth

- Attend IRB meeting
- Receive final edits/reviews of proposal from committee

#### WEEK#11

## Monday, August 09, 2010

- 9a – 33op: meeting with innovative incubator for OR device study

## Tuesday, August 10, 2010

- Review and edit manuscript of BSN student

# Wednesday, August 11, 2010

- 7a – 2p: Participation with OR device study

## Thursday, August 12, 2010

- Reviewed and edited nursing student's manuscript and presentation
- Meeting with Dr. Bae concerning statistical terms

## Friday, August 13, 2010

- Conclusion of personal involvement with OR device study
- Meet with nursing student to discuss manuscript reviews
- Begin concentrating on MISSCARE Nursing Survey Study project

#### WEEK#12

### Monday, August 16, 2010

- "Cleaning" data sets at UNTHSC campus
- Communicate with Hospital 2 for further clarification to code qualitative data
- Submit proposal to UNTHSC GSBS

#### Tuesday, August 17, 2010

- Continue to "clean" quantitative data sets on UNTHSC campus
- Communicate with hospital nurse researchers for clarification of the "type of unit" comment reports
- Read and review "Helping New Nurses Stay on the Job" by E. Ondash (AMN Healthcare, Inc.)

## Wednesday, August 18, 2010

- Clarify and categorize units for Hospital 1, 2, and 3 quantitative data

## Thursday, August 19, 2010

- Meet with Dr. Behan at UTA to discuss and categorize Hospital 1, 2, and 3 quantitative units
- Communicate with CNS at Hospital 2 to code qualitative units

## Friday, August 20, 2010

- Organize and outline schedule for next week
- Forward IRB forms to Dr. Gwirtz

## **WEEK#13**

## Monday, August 23, 2010

- Continue "cleaning" data sets at the UNTHSC campus

# Tuesday, August 24, 2010

- Complete Phase IV device study involvement
- Create PowerPoint for possible improvements in discharge planning
- First submission of "Exempt IRB Study" forms to UNTHSC IRB

# Thursday, August 26, 2010

- Meet with Dr. Behan to discuss progress of data collection
- Forwarded completed UNTHSC IRB forms to Dr. Gwirtz

## Friday, August 27, 2010

- Received UNTHSC IRB feedback and began "First Edits" to study forms

#### WEEK#14

### Monday, August 30, 2010

- Received additional UNTHSC IRB feedback and began appropriate edits to study forms
- Continued to edit proposal

#### Tuesday, August 31, 2010

- Forwarded UNTHSC IRB study forms "Proposal Template" and the "Waiver of Informed Consent" to Dr. Gwirtz and Dr. Behan for review
- \*Note: online forms "tracked changes;" inquired UNTHSC IRB for alternative version
- Altered UNTHSC IRB consent form to "Waiver of Documentation of Informed Consent"

### Wednesday, September 01, 2010

- Continued to edit UNTHSC IRB study forms
- "Cleaned" Hospital 4 quantitative data
- Submitted edited UNTHSC IRB forms to Dr. Gwirtz for review

## Thursday, September 02, 2010

- Received reviews from Dr. Behan for UNTHSC IRB study forms

## Friday, September 03, 2010

- 10a: Meeting with Dr. Bae for statistical guidance
- Closed Hospital 4 and 5 survey data collection
- Received feedback concerning UNTHSC IRB forms from Dr. Gwirtz and Dr. Behan
- Made edits to UNTHSC IRB study forms

## WEEK#15

# Monday, September 06, 2010

- Review and edit BSN student manuscript and presentation

# Wednesday, September 08, 2010

- Second submission of UNTHSC IRB study forms
- Received "Second Edits" from UNTHSC IRB to edit study forms
- Continued to edit study forms

# Friday, September 10, 2010

- Communicated with UNTHSC IRB
- Started a new template for study forms with "Secondary Data Analysis" perspective

#### WEEK#16

## Monday, September 13, 2010

- Third submission of UNTHSC IRB study forms
- Received "Third Edits" of UNTHSC IRB feedback
- Continued to edit forms

## Thursday, September 16, 2010

 Discuss possible meeting with secondary team, including the parent project PI, RN researcher, and PhD student in order to facilitate analysis of qualitative responses

## Friday, September 17, 2010

- Communicate with parent project PI regarding involvement for "Secondary Data Analysis"
- Started to categorize Hospital 1, 2, 3, 4, and 5 qualitative data
- Began to outline PowerPoint presentation
- Fourth submission of UNTHSC IRB study documents
- Received "Fourth Edits" of UNTHSC IRB feedback

## **WEEK#17**

# Monday, September 20, 2010

- Provided Dr. Gwirtz with UNTHSC IRB forms signed by committee

# Wednesday, September 22, 2010

- Fifth and final submission of UNTHSC IRB study forms

# Friday, September 24, 2010

- Met with parent project PI and RN researcher to discuss Hospital 1, 2, 3, 4, and 5 qualitative responses
- Communicated and compared timeframes for approval of UNTHSC IRB "Exempt" studies with study hospital systems
- Scheduled defense date (18 November 2010) with committee

#### WEEK#18

# Monday, September 27, 2010

- Granted UNTHSC IRB "Exempt" review process
- Submitted as "Student" on Phase IV device study abstract for presentation and publication

# Wednesday, September 29, 2010

- Meeting with Dr. Bae to review data progress

# Thursday, September 30, 2010

- UNTHSC data "cleaning" and analysis

# Friday, October 01, 2010

- Meeting with Dr. Behan to review feedback from Dr. Bae and statistical analysis

#### WEEK#19, 20, 21, and 22

- Continued qualitative and quantitative secondary statistical analysis
- Continued thorough literature review for practicum report
- Continued self-disciplined review and writing of final practicum report
- Continued development of practicum presentation PowerPoint

# Clinical Research Management Internship Weekly Journal

#### WEEK#23

## Monday, November 01, 2010

- Continued to review and write practicum report

#### Tuesday, November 02, 2010

- Meeting with Dr. Bae concerning final statistical analysis

## Wednesday, November 03, 2010

- Completed final statistical analysis for completed practicum report

#### Thursday, November 04, 2010

- Emailed final practicum report to committee for review