



Time to Share Our Findings: Analysis of the LVHN Nursing Work Environment



Significance of the Problem

- The environment within which nurses work, patient care demands, and the staffing available to provide care all impact patient outcomes such as falls, medication errors, hospital acquired infections, increased hospital costs, and mortality (Kalisch, Landstrom, & Hinshaw, 2009).
- Recognizing that the nursing work environment impacts patient outcomes, professional organizations as well as state and national coalitions are challenging healthcare leaders to improve the work environment.
- Multiple system issues affect the work environment
 - Competing care priorities
 - Non-direct patient care activities
 - Labor resources
- There are times when nurses may find it impossible to fulfill all nursing care requirements or choose not to complete all aspects of care for a variety of reasons.
- In the midst of multiple demands and inadequate resources, it is important to find out what choices nurses make in order to provide the best care possible.

LVHN Response

- Ensuring quality nursing care and patient safety is a major challenge facing nurses and nurse leaders today.
- As the **LARGEST** group of clinicians, promoting a healthy work environment (HWE) for nurses is critical.
- Motivated by a need to fully understand the complexity of delivering nursing care, our CNO initiated a research study on the nursing work environment to determine the factors affecting care delivery.
- The scientific method that was used and the conscious use of visiting nurse scientists as investigators demonstrates a pragmatic approach to conscientiously translate research findings into practice.

Missed Nursing Care

- Missed Nursing Care
 - Any aspect of required patient care that is omitted (either in part or in whole) or delayed (Kalisch, Landstrom, & Hinshaw, 2009).
 - Appears to be occurring on a regular basis in hospitals everywhere.
- Patient Safety Errors
 - Errors of commission (e.g., giving the wrong medication, hanging the incorrect blood).
 - Errors of omission (e.g., not giving a medication, failing to feed a patient).
 - Missed nursing care involves errors of *omission*.
 - There are, undoubtedly, many more errors of omission than commission (Agency for Healthcare Research and Quality, n.d.).

Missed nursing care potentially leads to negative outcomes!

- **Example** - Failure to ambulate patients - new-onset delirium, pneumonia, delayed wound healing, pressure ulcers, increased LOS and delayed discharge, increased pain and discomfort, muscle wasting and fatigue, and physical disability.
 - Reimbursement does not occur for selected adverse events!
- Also can lead to job dissatisfaction, which can result in greater turnover and nursing shortages (Kalisch, Tschanen, & Lee, n.d.).
- Nurses/staff want to do a “good” job and feel distressed when they don’t complete all of the care they feel a patient needs.
 - Can lower self-image and feel less competent.

Review of Literature –Missed Nursing Care

First study, Kalisch (2006), Qualitative

- **Nine common areas of missed care:** ambulation, turning, delayed or missed feedings, patient teaching, discharge planning, emotional support, hygiene, intake and output documentation, and surveillance
- **Seven common reasons for missing care:** too few staff members, poor use of existing staff resources, time required for the nursing intervention, lack of teamwork, ineffective delegation, habit, and denial

Review of Literature - Missed Nursing Care

- The MISSCARE Survey - measures missed care including the type of missed care, the extent of missed care, and the reason for missed care.
- Multiple studies revealed that a substantial amount of standard required nursing care is being left undone and the patterns of missed care are similar across hospitals (Kalisch, Tschanen, & Lee, 2012).
- Reasons for missed care identified included: labor resources, material resources, and communication (Bittner, Gravlin, Hansten, & Kalisch, 2011).

Review of Literature – Nursing Teamwork

- A study of critical care staff demonstrated that interdisciplinary teams reporting higher levels of team development had lower patient mortality rates (Wheelan, Burchill, & Tilin, 2003).
- Morey et al. (2002) found that higher teamwork led to fewer errors.
- Another study found a significant positive relationship between hospital teamwork culture and patient satisfaction (Meterko, Mohr, & Young, 2004).
- Kalisch & Lee (2010) found that teamwork alone accounted for 11% of missed nursing care – *utilized Nursing Teamwork Survey*.
- Nurses identified more missed care than nursing assistants, the nurses felt that the elements of care completed by nursing assistants were missed more often. This suggests a lack of trust which contributes to lack of teamwork (Kalisch, 2009).

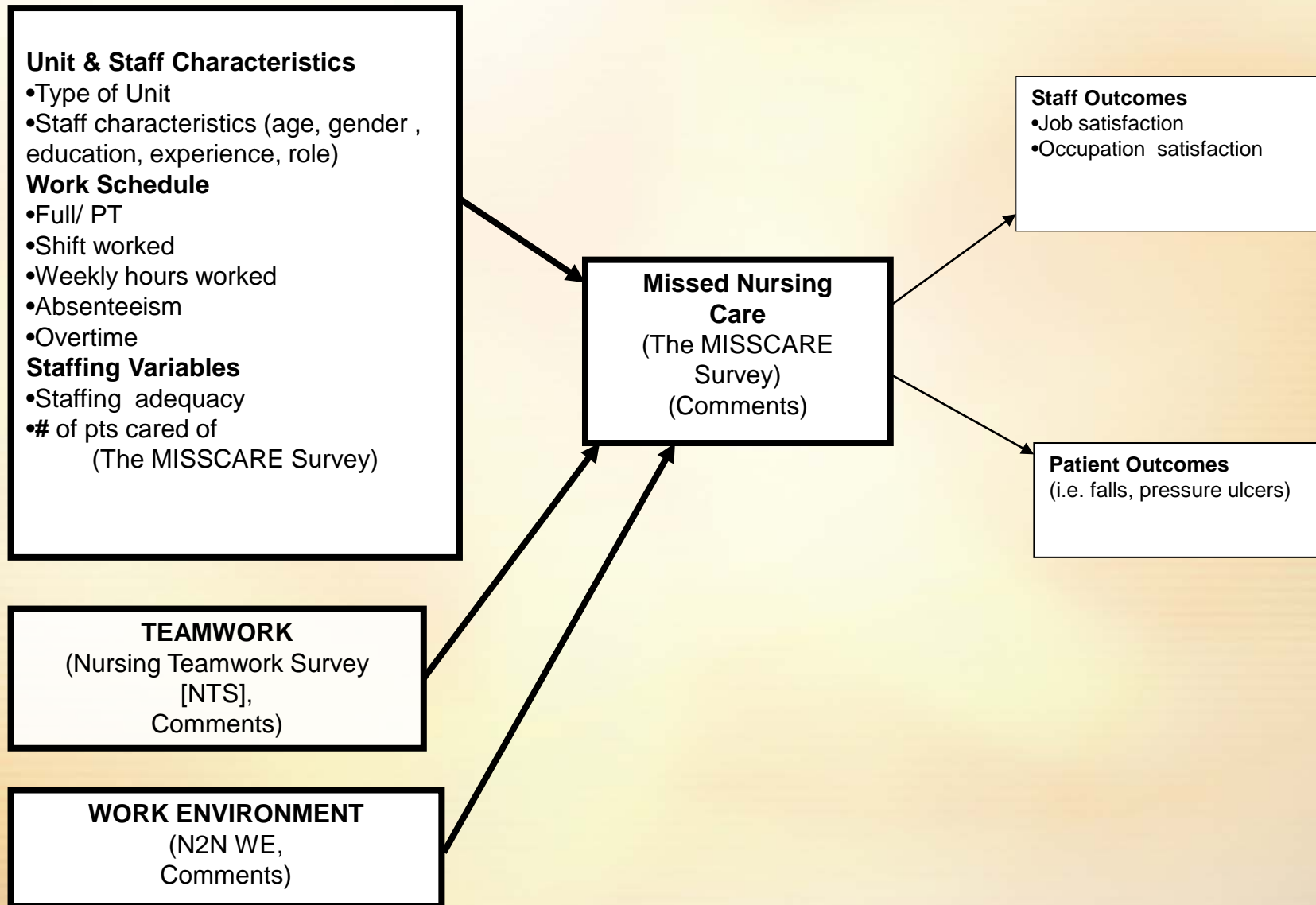
Review of Literature- Health Work Environment

- Healthy Work Environments are empirically linked to patient & staff satisfaction, retention, reduced turnover, increased job satisfaction, lower degree of job stress and burnout among nurses (Hall, 2005; American Hospital Association, 2002).
- Components of the work environment associated with satisfaction include working for a reputable organization, such as a Magnet hospital, good relationships with peers, group cohesion, and availability of supplies (Khowaja, Merchant, & Hirani, 2005).

Why this Study is Important!

- Will provide LVHN leadership with an in-depth-analysis of the work environment.
- Need to recognize missed care and bring it out into the open.
 - “Nurses report that missed care is a “hidden secret” that they would like to bring out in the open and address”.
 - Important to be open about it as nothing will be done and it will remain “hidden.”
- LVHN’s mission is to heal, comfort, and care for our patients.
- Understanding the “work” involved is necessary for making improvements to achieve safety, quality, and satisfaction.

Figure 1. Missed Nursing Care Model*



Purpose of the Study

- Identify types of and reasons for missed nursing care.
- Determine which unit and staff characteristics, work schedules, and staffing variables are related to reports of missed nursing care.
- Examine whether perceptions of teamwork and work environment are related to reports of missed nursing care.

Research Questions

1. What is the amount and types of missed nursing care on inpatient medical surgical units?
2. What are the reasons for missed nursing care on inpatient medical surgical units?
3. How are unit and staff characteristics, work schedules, and staffing variables associated with the amount of missed care?
4. What is the perception and relationship of nursing teamwork and missed nursing care?
5. What is the perception and relationship of the work environment and missed nursing care?

Methods

- Descriptive, cross-sectional correlational design
- Convenience sample of RNs and TPs who provide direct patient care
 - 25 medical/surgical units
 - **Cedar Crest:** 3AICPU, PCU, 4CP, 4K, TTU, 5B, 5C, 5K, 6B, 6C, 6K, 7BP, 7C, 7A, TOHU
 - **Muhlenberg:** 2S, RHCM, 4T, 5T, 6T, 7T
 - **Float Pools:** 2 RN, 2 TP
- Subject Eligibility
 - RN or TP status
 - Practicing as a network RN or TP for at least 6 months
 - Work a minimum of 12 hours per week.
- Sample Size Goals:
 - 50% response rate for each unit and shift;
 - 50% response rate for each role (RN and TP)

Variables & Instruments

- Missed Nursing Care
- Teamwork
- Work Environment
- The MISSCARE Survey
 - 41-item, 4-point Likert scale
 - Part A –asks how frequently elements of care are missed
 - Part B - asks reasons why care is missed
 - Part C - unit and staff characteristics
 - age; gender; educational level/degree; job experience
 - work schedules (shift/hours worked)
 - staffing: absenteeism, staffing adequacy, admissions/ discharges' patient workload
 - job & role satisfaction
- Nursing Teamwork Survey
 - 33-item, 5-point Likert scale
 - Team = Nurses, TPs, APs
- Nurses to Nurses (N2N) Work Environment Instrument
 - 12-item scale (based on AACN's standards for a HWE)
 - Assesses individual and co-worker's contributions to a healthy work environment

Additional Input from Nurse Experts

- Open ended questions after each instrument
 - Do you have any other comments about missed care?
 - Do you have any other comments about teamwork?
 - Do you have any other comments about the work environment?

Procedure

- IRB Approval - Jan 2013
- Study presented to PCOC, RN Advisory, TP Advisory and EBP/NRC for buy-in
- Investigators rounded on participating units to talk with staff, hang flyers, assure anonymity with aggregated data
- 1051 RNs/TPs sent a secure email inviting them to participate
 - Letter of explanation- study description, rationale, anonymity of responses
 - Implied consent with inclusion/exclusion criteria
 - Instruments via Survey Monkey- 20 min to complete
 - Completion within 8 weeks at respondent's convenience
- Email reminders to non-responders to increase participation rate
- Data collected during an 8-week period between January and March, 2013

Quantitative Analysis

- Data analyzed with SPSS 15.0 & SAS 9.2
- Critical significance level set at $p < .05$
- Analyses:
 - Descriptive statistics
 - Correlations
 - Regressions, clustering responses within units (ICC=.10)
 - Univariate (each predictor tested individually)
 - Multivariate
 - Jointly tested to determine most important predictors
 - Additional/unique contribution of teamwork and work environment

Qualitative Analysis

- Responses were independently coded by 2 researchers
- Iterative process via NVIVO software – codes → categories → themes consensus
- Crystallization process –immerse self in all data with purpose of identifying patterns and connections

Results

- 739 of you replied!!!
 - RNs = 472
 - TPs = 267

- **A 70% response rate - AMAZING!**

- This demonstrates your commitment in achieving a HWE!

- Gave us excellent data to work with!

RN Characteristics ($N = 472$)

- Predominately women – 93%
- Half between the ages of 25 - 44 years
 - 25-34 years of age (30%)
 - 35-44 years of age (20%)
- Working full time (88%)
- Years of work experience was almost evenly divided
 - 25% - > 6 mon to 2 yrs
 - 22% - > 2 to 5 yrs
 - 22% - > 5 to 10 yrs
 - 26% - > than 10 yrs
- Holds a Bachelor's degree (68%)
- Most RNs work 12 hour shifts (80%)
- Half (50%) work day shift

TP Characteristics (*N*= 267)

- Predominately women -90%
- About half between the ages of 26-44 years
 - 25-34 years of age (35%)
 - 35-44 years of age (24%)
- Working full time (84%)
- Average TP
 - 2 to 5 years of role experience
 - Has a high school diploma (66%)
- Most TPs work 8 hour shifts (51%)
- 48% work day shift

Results: RQ #1

What are the types and frequencies of missed nursing care on inpatient medical surgical units?

- Most frequently missed care activities:
 - Ambulation 3 times per day or as ordered (82%)
 - Attendance at interdisciplinary patient care conference (69%)
 - Medications administered w/in 30 min scheduled time (66%)
 - Turning patient every 2 hours (63%)
 - Assess effectiveness of medications (61%)
 - Response to call light is initiated within 5 minutes (61%)
- Least frequently missed care activities:
 - Completion of patient assessments each shift (9%)
 - Glucose monitoring (11%)
 - Hand washing (18%)
 - Patient discharge planning and teaching (19%)
 - IV/central line site care & assessments hospital policy (27%)
 - Skin/wound care (28%)

Results: RQ #2

What are the reasons for missed nursing care on inpatient medical surgical units?

Reasons Ranked Most to Least Important	Subscale	Mean
Unexpected rise in patient volume and/or acuity on unit	LR	3.30
Inadequate number of assistive and/or clerical personnel	LR	3.27
Heavy admission and discharge activity	LR	3.27
Inadequate number of staff	LR	3.22
Urgent patient situations	LR	2.95
Medications were not available when needed	MR	2.84
Unbalanced patient assignments	COM/TW	2.77
Supplies/ equipment not available when needed	MR	2.77
Supplies/ equipment not functioning properly when needed	MR	2.54
Lack of back up support from team members	COM/TW	2.48
Nursing assistant did not communicate care was not provided	COM/TW	2.47
Other departments did not provide the care needed	COM/TW	2.40
Tension/communication breakdowns with the medical staff	COM/TW	2.35
Inadequate hand-off from previous shift or sending unit	COM/TW	2.33
Tension/communication breakdown with support department	COM/TW	2.26
Tension/communication breakdown within the nursing team	COM/TW	2.24
Caregiver off unit or unavailable	COM/TW	2.01

Results: RQ1 & 2

Do you have any other comments about missed care?

- Of the 739 respondents to the MISSCARE survey, 235 (32%) respondents submitted a response to the open-ended question.
- Reported themes regarding reasons for missed care:
 - **Workload - increased patient acuity and turnover**
 - *“There is not enough nurses or tech partners to meet the increasing demands of our patient's acuity, patient's family members needs, turnover, documentation requirements and patient care demands.”*
 - **Ineffective leadership -including inappropriate staff to patient ratio**
 - *“Either the nurse to patient ratio needs to decrease or there needs to be more TP's!”*
 - *“Management needs to find another measure to relieve nurses to tend to patient care.”*
 - **Non-patient-decision-making and care**
 - *“We have created an environment where hands on patient care is not viewed as important anymore as charting scores, benchmarks, bar coding percentages, elearning, etc.”*
 - **Lack of team collaboration - communication and unit culture**
 - *“Lack of communication is usually the reason for missed care on my unit.”*

Results: RQ #3

How are unit and staff characteristics, work schedules, and staffing variables associated with the amount of missed care?

- Perception of more missed care was significantly correlated to:
 - RN status [versus TP] ($p < .0001$)
 - Nurses with more role experience ($p < .0001$)
 - Nurses intending to leave current position ($p < .0001$)
 - More overtime hours ($p < .01$)
 - Greater use of sick time ($p < .05$)
 - Greater perceptions of inadequate staffing ($p < .0001$)

Results: RQ #4

What is the perception and relationship of nursing teamwork and missed nursing care?

- Higher teamwork scores were significantly related to less missed care ($p < .0001$).
- Of the 739 respondents to the Nursing Teamwork Survey, 170 (23%) respondents submitted a response to the open-ended question.
- Reported themes:
 - Understanding each other's role and its complexity
 - *“I feel that the teamwork on our unit is outstanding.”*
 - *“It would be hard to believe that other units function as well as a group as this unit, and it does not matter who you are teamed up with as a TP or RN...it always feels like everyone is on the same page.”*
 - Importance of communication
 - *“I would say in general, one of the main reasons I will choose and have chosen to stay on the floor I am on is related to the excellent teamwork and communication.”*
 - *“We may be understaffed at times, but when I truly need help in a critical or overloaded situation, there is always someone that asks if I need a hand.”*
 - Unit Culture – workload, acuity, and patient-centered leadership
 - *“We are busy and at time the work load is crazy. Our unit has a very nurturing, and growing happy work environment.”*
 - *“I like this unit.”*

Results: RQ #5

What is the perception and relationship of the work environment and missed nursing care?

- Perceptions of one's own and one's co-workers' contribution to a healthy work environment were both significantly related to less missed care ($ps < .0001$).
- Of the 739 respondents to the N2N Work Environment survey, 109 (15%) respondents submitted a response to the open-ended question.
- Reported themes:
 - Workload – acuity, turnover and patient ratios account for missed care
 - *“I believe our staff on our unit are committed to the goals and energy we have created on our unit.”*
 - *“It is a struggle with the high acuity of patients to get everything done.”*
 - Recognition – unit leadership, acknowledgment of the workload
 - *“I find the best environment is when my superiors recognize the valuable contributions each of us bring to the team.”*
 - *“Recognition does not occur on a daily basis so the teams need to appreciate each other because in the long run, it is the front line troops and their patients who profit by this type of environment.”*

New Phenomenon

- A unique finding was “**documentation**” not only being noted as an *element of missed care* (i.e., failed to document), but “too much time spent on documentation” being *a reason for missed nursing care*.
- Electronic documentation is a key element in the reformation of healthcare.
- Identifying documentation as a reason for missed nursing care is a significant finding given the study population documents utilizing an electronic medical record system.
- Based on these findings, it is proposed that “Increase in Documentation Requirements” be added as a reason for missed care to the MISSCARE Survey.
- The finding is timely, given the focus on electronic records as a means of improving the delivery of healthcare, and requires further research.

Limitations

- Single institution
- Cross-sectional design
- Self-report measures
- Multi-collinearity interfered test of predictive model

In summary...

- Findings strongly replicate those of 3 prior studies conducted in Midwestern hospitals .
- Ambulation, care conference participation, medications on time, patient turning, and assessment of medication effectiveness were the **top 5** missed care elements.
- Shift assessments, glucose monitoring, hand washing, patient discharge planning/teaching and IV/central line site care were the **5 least** missed care elements.
- Shortage of labor resources (i.e. unexpected rise in patient volume and/or acuity on unit) is the most frequent reason for missed care, followed by material resources and communication.
- Identifying **documentation** as a reason for missed nursing care is a significant finding given the study population documents utilizing an electronic medical record system.

In summary...

- RNs report more missed care than TPs.
- Higher rates of missed care was reported by more experienced nurses.
- RNs who intend to leave their position, work more overtime, and are absent more often report more missed care.
- RNs with greater perceptions of inadequate staffing report more missed care.
- When teamwork was perceived as stronger, less missed care was reported.
- Perceptions of a healthier work environment are significantly related to less missed care.

Implications for Practice

- Given our findings and the extent of replication:
 - It is now time to shift focus and to develop interventions
 - which minimize identified areas of missed nursing care
 - increase teamwork
 - promote healthier work environments

Implications for Practice

- Staff themselves must be engaged in the evaluation, analysis and development of action plans to improve the work environment!
- Need to create a culture of quality and safety where the honest reporting of care omissions is embraced.
- Reducing missed care requires attention to several aspects of the care delivery system
 - Personnel
 - Patient assignments, admissions, acuity
 - Insufficient supplies and equipment
- Need to invest in methods of enhancing teamwork
 - Teamwork Training
 - Mentoring

Implications for Practice

- Re-examine the MISSCARE Survey and add “Increase in documentation requirements” as a reason for missed care to the MISSCARE Survey.
- The current finding linking documentation and missed care is especially timely given the focus on electronic records as a means of improving the delivery of healthcare, and requires further research.

Future Research

- Further evaluation (focus groups) with staff on units that reported more missed care as compared to those with the least missed care
- Secondary analysis
 - Evaluation of missed nursing care and staff satisfaction
 - Evaluation of missed care, teamwork, perception of the work environment and patient outcomes
- Critical Care Work Environment

So you know....

- We “heard” you and want to thank you!
- We are not alone as missed nursing care is a nationwide problem. Our findings are extremely similar to what has been previously reported!
- This was a baseline measurement and we want to dig deeper into the meanings of our findings.
- We are going to build on this information and try to do something about it! We will be coming with more questions!
- Our promise to you is that we will work together to “fix” things...however, they must be within the financial constraints of the current healthcare environment.

It takes a village...

- Insightful CNO – Anne Panik
- Pool Trust/FARR Fund
- Open minded Administrators & Directors
- Community Health and Health Studies
 - Deborah Swavely, Kathy Baker, Michelle Flores, Carol Foltz
- And YOU!!! Your willingness to share your perceptions demonstrates your commitment to providing the best care possible to our patients and their families!

Questions?



Cedar Crest



17th Street



Muhlenberg



Health Centers

A PASSION FOR BETTER MEDICINE.™



Please contact us with questions!

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