

# Is Nursing Care Missed? A Comparative Study of Three North Carolina Hospitals

Susan Maloney  
Jennifer L. FencI  
Sonya R. Hardin

The ability of health care leaders to implement effective strategies to improve patient satisfaction scores, quality of care, and patient outcomes becomes increasingly important as reimbursement becomes more closely tied to these factors. Recognizing the many variables that affect the quality of patient care and the relationships between these variables is a critical first step in developing these strategies. A systematic review by Stone, Pogorzelska, Kunches, and Hirschhorn (2008) found increased registered nurse (RN) staffing improved patient outcomes and quality of care. Inadequate nurse staffing, increased absenteeism and nurse turnover, lower patient satisfaction scores, and increased patient falls and hospital-associated infections also have been linked to omitted or delayed nursing care (Kalisch, Tschannen, & Lee, 2011a; Kalisch, Tschannen, & Lee, 2012; Papastavrou, Andreou, & Efstathiou, 2013; Tschannen, Kalisch, & Lee, 2010).

Kalisch, Landstrom, and Hinshaw (2009) defined missed care as “any aspect of required patient care that is omitted (either in part or in whole) or delayed” (p. 1510). Nursing staff surveyed in several midwestern hospitals reported missed care as a frequent occurrence, with respondents from all hospitals citing similar types of missed care and reasons for care being missed (Kalisch, Landstrom, & Williams, 2009; Kalisch, Tschannen, Lee, & Friese, 2011). A subsequent study of missed care also found patients who were awake and alert

*Results of a survey measuring frequency, types, and reasons for missed care at three acute care hospitals in North Carolina are described. Results also are compared to those of a previous, similar study in the midwestern United States.*

were able to identify many types of missed care, such as timely responses to call lights and requests for analgesia (Kalisch, McLaughlin, & Dabney, 2012).

While studies in the midwestern United States have highlighted the significance and prevalence of missed care, similar studies in other regions and states would provide additional insight and support for generalizing these findings to all acute care hospitals in the United States (Kalisch & Williams, 2009). While many similarities exist among U.S. hospitals, a number of differences exist among regions and states that might impact the many variables influencing care delivery and outcomes. Introduction and enactment of legislation addressing nurse-to-patient ratios, mandatory overtime, and disclosure of staffing levels differ considerably among states (American Nurses Association, 2011). Nurses who participated in a survey to determine the impact of 2004 staffing mandates in California hospitals, as well as in New Jersey and Pennsylvania hospi-

tals that followed California-mandated ratios, reported better quality of care and less job dissatisfaction than nurses in other states (Aiken et al., 2010). Although limited research has addressed the effects of nursing unions on variables related to missed care, findings from a study in strongly unionized California found a positive relationship between patient outcomes and RN unions (Ash & Seago, 2004). Job satisfaction, however, was associated negatively with union representation in an analysis of data from the 2004 and 2008 National Sample Surveys of Registered Nurses (Seago, Spetz, Ash, Herrera, & Keane, 2011).

## Literature Review

Articles relevant to this study published 2006-2013 were identified through searches of the Cochrane Database of Systematic Reviews, PubMed, and CINAHL. Reference lists of identified articles also were reviewed for additional relevant publications. Because recent literature examining the rela-

**Susan Maloney, MSN, RN**, is Student Advisor, Forsyth Tech Community College, Paul M. Wiles School of Nursing, Winston-Salem, NC.

**Jennifer L. FencI, DNP, RN, CNS-BS, CNOR**, is Clinical Nurse Specialist, Operative Services, Cone Health, Greensboro, NC.

**Sonya R. Hardin, PhD, RN, CCRN, ACNS-BS, NP-C**, is Professor, East Carolina University, College of Nursing, Greenville, NC.

tionship between nursing unions and missed care was not identified using initial search dates, dates were extended to 2004 to locate articles on this topic. Keywords used for database searches were *missed nursing care*, *omitted nursing care*, and *delayed nursing care*.

An initial qualitative study of missed care on medical-surgical units identified nine frequently missed types of care and seven common reasons that care was missed (Kalisch, 2006). For this study, 107 RNs, 15 licensed practical nurses, and 51 nursing assistants in two hospitals were divided into 25 groups by job title for interviews. Ambulation, patient turning, missed or delayed feedings, discharge planning, emotional support, hygiene, intake and output documentation, and patient surveillance were noted by the groups as types of care frequently missed. The need for additional studies to validate findings was noted, as well as the need for a tool to measure missed care.

Following development of the MISSCARE Survey, two subsequent studies utilized this tool to measure missed care in several hospitals in the midwestern United States (Kalisch et al., 2009; Kalisch et al., 2011). In the first study, Kalisch and colleagues (2009) surveyed 459 RNs in three Michigan hospitals. The most frequently missed type of care was ambulation, as cited by 84% ( $n=459$ ) of respondents; this was followed by assessing effectiveness of medications, turning, providing mouth care, and offering patient education.

Frequencies, types, and reasons for missed care identified in the second study of 3,143 RNs and 943 nursing assistants were similar to those of the first (Kalisch et al., 2011). Findings also were similar among all 10 hospitals included in the second study. The most frequently missed types of care were ambulation, mouth care, participation in care conferences, on-time administration of medications, and patient turning. Inadequate labor resources were again the most frequently cited reason for missed care. Study implications included

use of the MISSCARE Survey by nurse managers to measure missed care and better understand where quality improvement efforts should be focused.

A number of studies have explored the relationships among missed patient care, variables influencing care delivery, and patient outcomes. A systematic review of literature by Stone and colleagues (2008) identified 38 eligible studies examining the relationships between nurse staffing and health care-associated infections. Of these studies, 90% ( $n=38$ ) reported statistically significant correlations among health care-associated infections, staffing, and factors affecting staffing, such as absenteeism, staffing mix, and overtime. The inability to provide recommended nursing care when staffing levels were poor was noted as a possible reason for this correlation.

Higher frequencies of missed care were linked to staffing levels and patient outcomes in a cross-sectional descriptive study of 10 midwestern hospitals (Kalisch et al., 2011a). Results from the MISSCARE Survey on frequency of missed care were examined in relation to unit characteristics and staffing data. Higher hours per patient day were associated significantly with lower levels of missed nursing care. In addition, high rates of absenteeism were associated with more missed care.

Significant correlations between unmet nursing care needs and medication errors, patient falls resulting in injury, and nosocomial infections were identified in a secondary analysis of cross-sectional data collected in a survey of 10,184 nurses in Pennsylvania (Lucero, Lake, & Aiken, 2010). Results indicated necessary nursing care may be omitted commonly in acute care hospitals and this missed care may, in turn, increase adverse events. In addition, authors noted findings from this analysis emphasized the importance of ensuring nurses have time to spend with patients to deliver needed care.

Pediatric nurses surveyed in 498 U.S. acute care hospitals reported

less patient surveillance when staffing levels were low and inadequate support services were available (Cimiotti, Barton, Chavanu Gorman, Sloane, & Aiken, 2012). The 3,819 nurses included in the survey also cited higher instances of missed changes in patient condition when staffing levels were low. Because poor surveillance can contribute to adverse events, these findings were considered to have significant implications on patient outcomes.

A recent review of 17 quantitative studies by Papastavrou and colleagues (2013) concluded negative consequences for both patients and nurses were associated with rationed or missed care. These consequences included increased falls, increased nosocomial infections, decreased patient satisfaction, and low job satisfaction among nursing staff. Types of care commonly missed or rationed included ambulation, mouth care, and communication with patients and families.

Fisher, Kuo, Graham, Ottenbacher, and Ostir (2010) demonstrated the importance of ambulation for older hospitalized patients. In this study, a step activity monitor was placed on 162 patients age 65 or older hospitalized for at least 2 days with an acute illness. The 32 participants who significantly increased their walking between the first and second day of hospitalization were released approximately 2 days earlier than other participants. Longer lengths of stay were associated with participants having low or negative step count changes.

The importance of ambulation in older adults was demonstrated again in a study of 525 patients age 70 or older admitted to a teaching hospital in Israel (Zisberg et al., 2011). Interviews were conducted to determine level of mobility during the month prior to admission, during each day of hospitalization after the first 48 hours, at discharge, and 1 month after discharge. Findings included a strong association between mobility level during hospitalization and functional decline at discharge and 1 month following discharge, highlighting the impor-

tance of ambulation for older adults during hospital stays.

## Purpose and Research Questions

The purpose of this study was to identify frequency and types of missed care as well as reasons for missed care in three acute care hospitals in North Carolina, a state not included in previous missed care studies. The research questions were as follows:

- What are the most frequently missed types of nursing care and reasons for missed care at the three study hospitals?
- Are types and reasons for missed care different among the study hospitals?
- How do findings compare with those of previous missed care studies in the midwest?

## Methods

### Sample and Setting

For this descriptive study, a convenience sample of nursing staff from 16 inpatient units of three acute care hospitals in North Carolina were asked to complete the MISSCARE survey. Nursing staff included all full- and part-time RNs, licensed practical nurses, and nurse technicians. All medical-surgical, neurology, orthopedic, cardiology, urology, and oncology inpatient units of these hospitals were included in the study; of 750 nursing staff invited to participate, 205 completed the survey (response rate 27.3%). Response rates from Hospital A, Hospital B, and Hospital C were 31% (80 participants,  $n=258$ ), 24% (108 participants,  $n=450$ ), and 40% (17 participants,  $n=42$ ) respectively.

### Instrument

The MISSCARE survey was developed to measure types and reasons for missed care. Psychometric testing of data from two studies (Study 1,  $n=459$ , Study 2,  $n=639$ ) concluded this tool met psychometric standards for acceptability, validity, and reliability based on evidence available at the time (Kalisch &

Williams, 2009). Acceptability rates were high, with respondents from both studies completing almost all survey questions. Test-retest scores demonstrated stable reliability, with 81% of questions in Part A and 82% of questions in Part B answered identically on retest.

The first section of the MISSCARE Survey (Kalisch & Williams, 2009) contains 17 multiple-choice or open-ended questions focusing on staff and work environment characteristics, and three questions related to job satisfaction. Part A of the survey asks respondents to rank the frequency with which 24 types of care, such as ambulation and patient turning, are missed. Respondents are given a list of 17 possible reasons for missed care in Part B, and asked to rank each as either not a reason for missed care or as a significant, moderate, or minor reason care is sometimes missed.

### Data Collection

After approval of data collection procedures was received from the institutional review board of each participating hospital, a computerized learning module on missed care followed by the MISSCARE Survey was made available to nursing staff through the hospital intranet. Modules were used frequently at all hospitals for continuing education activities and thus were familiar to participants. The module and survey were available on the hospital intranet for 2 weeks in January 2013. Staff also was notified of the module and survey by unit managers and through flyers posted on the units prior to the survey. Unit managers were provided information about missed care, the module, and survey through phone calls, emails, and visits before and throughout the data collection period. As an incentive to complete the module and increase interest in the survey, participants were entered in a drawing for a \$50 gift certificate and awarded credits toward required hospital continuing education activities for module completion. Participants choosing to continue with the survey were directed

to an online secured website for survey research to ensure anonymity. Before beginning the survey, consent for participation and the name of the participant's hospital were requested. Only persons who granted consent for participation were allowed to continue with the MISSCARE survey.

## Findings/Results

Frequencies of responses for each survey question for all hospitals collectively and for each of the three hospitals (Hospitals A, B, and C) were obtained through use of data analysis tools provided by Survey Monkey® (Palo Alto, CA). In addition, statistically significant differences among Hospitals A, B, and C for all variables in Part A and Part B were examined using Single Factor One-Way Analysis of Variance (ANOVA). ANOVA also was utilized to examine differences among hospitals in age, education level, nursing degree, job title, work hours, role and unit experience, shift and amount of overtime worked, missed work days, plans to leave, job satisfaction, and unit staffing. Microsoft® Excel 2010 Analysis ToolPak (Redmond, WA) was utilized for ANOVA tests of all variables using a significance level of 0.05.

The majority of 205 survey respondents (96.6%,  $n=198$ ) were female and ages 25-34 (35.3%,  $n=72$ ). Almost all were either nurse technicians (34.3%,  $n=70$ ) or RNs in staff nurse positions (64.1%,  $n=131$ ). Slightly more than one-half (52.9%,  $n=108$ ) of nurse respondents reported holding a bachelor of science in nursing degree. Participants were divided almost equally between those working days (47.8%,  $n=98$ ) and those working nights (45.3%,  $n=93$ ). Most respondents worked 12-hour shifts (89.1%,  $n=183$ ) for a total of 30 hours or more per week (83.7%,  $n=172$ ). ANOVA detected no statistically significant differences among hospitals for any of these variables.

Very few participants (2.5%,  $n=5$ ) indicated a belief staffing on their units was always adequate, with a majority (79.3%,  $n=163$ ) reporting

**TABLE 1.**  
All Hospitals: Frequency of Missed Care

Type of Care	Always Missed	Frequently Missed	Occasionally Missed	Rarely Missed	Never Missed
Ambulating 3 times/day or as ordered	1.0%	<b>36.3%</b>	40.4%	19.2%	3.1%
Turning patient every 2 hours	0	21.2%	<b>51.8%</b>	23.3%	3.6%
Feeding patient when food is still warm	0.5%	20.5%	<b>39.5%</b>	28.1%	11.4%
Setting up meals for patients who feed themselves	2.8%	6.9%	26.1%	<b>44.1%</b>	22.3%
Administering medications within 30 minutes before or after scheduled time	0	29.0%	<b>35.2%</b>	29.0%	4.0%
Assessing vital signs as ordered	0	7.2%	22.2%	<b>54.6%</b>	16.0%
Monitoring input/output	0	20.3%	34.9%	<b>35.4%</b>	9.4%
Documenting all necessary data	1.1%	13.5%	<b>40.4%</b>	38.9%	7.3%
Teaching patient about illness, tests, diagnostic studies	1.6%	16.8%	<b>39.7%</b>	33.0%	9.5%
Providing emotional support to patient and/or family	0.5%	8.3%	29.2%	<b>41.7%</b>	19.3%
Performing patient bathing/skin care	0.5%	5.2%	35.4%	<b>44.8%</b>	14.1%
Performing mouth care	0	27.6%	<b>33.9%</b>	30.7%	7.3%
Washing hands	0.6%	4.1%	10.8%	<b>44.8%</b>	40.2%
Planning patient discharge and teaching	0	5.0%	24.6%	<b>40.2%</b>	29.6%
Monitoring bedside glucose as ordered	0	1.6%	6.3%	<b>55.0%</b>	37.0%
Assessing patient each shift	0.6%	3.8%	5.5%	37.4%	<b>53.3%</b>
Performing focused reassessment according to patient condition	0	8.3%	17.2%	<b>46.1%</b>	27.8%
Performing intravenous/central line site care and assessments according to hospital policy	0.5%	4.6%	20.7%	<b>49.4%</b>	25.3%
Responding to call light within 5 minutes of initiation	0.6%	22.3%	30.6%	<b>31.1%</b>	15.5%
Acting on PRN medication requests within 15 minutes	0.6%	11.6%	36.6%	<b>40.1%</b>	11.0%
Assessing effectiveness of medications	3.3%	11.5%	37.4%	<b>38.5%</b>	12.1%
Attending interdisciplinary care conferences whenever held	0.5%	26.1%	28.3%	<b>30.6%</b>	11.7%
Assisting with toileting needs within 5 minutes of request	0	17.2%	<b>42.7%</b>	30.2%	9.4%
Performing skin/wound care		4.3%	31.2%	<b>43.0%</b>	21.5%

**Note:** Percentages listed are valid percentages. Permission to use the MISSCARE Survey for this study was granted by Beatrice Kalisch, RN, PhD, FAAN, University of Michigan School of Nursing.

their units were staffed adequately 50%-75% of the time. Although the majority also reported being satisfied or very satisfied in their current positions (71.6%,  $n=147$ ) and with the level of teamwork on their unit (68.7%,  $n=141$ ), ANOVA found statistically significant differences among hospitals in staff level of job satisfaction with current position ( $p=0.01$ ) and satisfaction with level of teamwork on the unit ( $p=0.02$ ). Slightly more than a quarter (27.6%,  $n=57$ ) of respondents

reported plans to leave within the next year. ANOVA tests revealed no statistically significant differences among hospitals for adequacy of staffing or plans to leave.

### Types of Missed Care

With missed care response choices divided into two groups, care missed (*always, frequently, and occasionally*) and care not missed (*rarely or never*), the five most frequently missed types of care for all hospitals cumulatively were ambulating

(77.7%,  $n=193$ ) turning patient every 2 hours (73%,  $n=193$ ), administering medications within 30 minutes before or after scheduled time (67%,  $n=176$ ), performing mouth care (62%,  $n=192$ ), and feeding patient when food is still warm (60.5%,  $n=165$ ) (see Table 1). Results for each hospital individually were similar when responses for missed and not missed care were grouped as described previously. ANOVA identified statistically significant differences among the three hospitals for

**TABLE 2.**  
**All Hospitals: Reasons for Missed Care**

Reason for Missed Care	Significant Reason	Moderate Reason	Minor Reason	Not a Reason
Inadequate number of staff	51.0%	33.9%	13.0%	2.1%
Urgent patient situations (e.g., patient's condition worsening)	32.3%	37.6%	25.8%	4.3%
Unexpected rise in patient volume and/or acuity on the unit	51.6%	35.8%	10.0%	2.6%
Inadequate number of assistive and/or clerical personnel (e.g., nursing assistants, unit secretaries, etc.)	50.5%	30.5%	15.3%	3.7%
Unbalanced patient assignments	25.4%	33.9%	32.3%	8.5%
Medications not available when needed	40.1%	33.3%	23.2%	3.4%
Inadequate handoff from previous shift or sending unit	11.2%	29.3%	50.0%	9.6%
Other departments did not provide needed care (e.g. physical therapy did not ambulate)	8.2%	24.6%	54.1%	13.1%
Supplies/equipment not available when needed	15.5%	33.1%	39.2%	12.2%
Supplies/equipment not functioning properly when needed	11.4%	28.6%	47.0%	13.0%
Lack of back-up support from team members	13.4%	29.4%	38.0%	19.3%
Tension or communication breakdown with other ancillary/support departments	7.1%	26.1%	45.7%	21.2%
Tension or communication breakdown within the nursing team	11.3%	25.8%	41.9%	21.0%
Tension of communication breakdown with medical staff	9.2%	21.6%	54.1%	15.1%
Nursing assistant did not communicate that care was not provided	16.6%	36.9%	36.4%	10.2%
Caregiver off unit or unavailable	7.0%	19.9%	48.4%	24.7%
Heavy admission and discharge activity	40.7%	40.2%	14.8%	4.2%

**Note:** Percentages listed are valid percentages. Permission to use the MISSCARE Survey for this study was granted by Beatrice Kalisch, RN, PhD, FAAN, University of Michigan School of Nursing.

only 3 of the 24 types of missed care: response to call light initiated within 5 minutes ( $p=0.02$ ), attend interdisciplinary care conferences whenever held ( $p=0.01$ ), and assist with toileting needs within 5 minutes of request ( $p=0.00$ ). Additional data analysis with controls is needed, however, for better definition and confirmation of statistically significant differences and similarities between these hospitals.

### Reasons for Missed Care

The MISSCARE Survey asked respondents to rate each of 17 reasons for missed care as a *significant*, *moderate*, or *minor* reason for care being missed. Cumulative results for all hospitals identified the following as the five most frequently cited significant and moderate reasons for care being missed: unexpected rise in patient volume and/or acuity on the unit (87.4%,

$n=190$ ), inadequate number of staff (84.9%,  $n=192$ ), inadequate number of assistive and/or clerical personnel (81%,  $n=190$ ), heavy admission and discharge activity (80.9%,  $n=189$ ), and medications not available when needed (73.4%,  $n=177$ ) (see Table 2). Results for each hospital individually were similar when responses were divided into two groups as above (significant/moderate reasons and minor reasons), with each hospital citing unexpected rise in patient volume and/or acuity on the unit, inadequate number of staff, inadequate number of assistive and/or clerical personnel, and heavy admission and discharge activity in the top five reasons for missed care. Hospitals A and B also included medications not being available when needed as a top five reason for missed care. Hospital C cited an equal number of responses for urgent care situations

and nursing assistant not communicating that care was not provided as a fifth leading reason for missed care. Although ANOVA found no statistically significant differences among hospitals for any reasons for missed care, more extensive data analysis with controls is needed to define and confirm these findings.

### Discussion

Results of this study indicate certain types of care are missed frequently or occasionally at the three study hospitals. Reasons, types, and frequencies of missed care also are similar among the hospitals. The percentage of care reported as always missed for each type of care was low at all hospitals (range 0-3.3% for each item). However, percentages of care frequently or occasionally missed for several types of care were quite high, with ambula-

tion reported as being frequently or occasionally missed 76.7% of the time.

These findings are consistent with those from the 10-hospital MISSCARE Survey study in the midwest, in which Kalisch and associates (2011) reported similar frequencies of always, frequently, or occasionally missed ambulation (76.1%) and mouth care (64.5%). Although frequencies reported for timely medication administration (59.8%) and patient turning (59.4%) were slightly lower than those reported in this study, these two items were also among the top five types of missed care identified by Kalisch and colleagues. The most frequently cited reasons for missed care in both studies were those related to labor resources, followed by availability of needed medications.

Although percentages in this study varied somewhat for types of and reasons for missed care, results supported the generalization of findings from the MISSCARE Survey study in the midwest to all acute care hospitals (Kalisch et al., 2011). Current findings also supported the conclusion of this study that missed care is a significant and prevalent occurrence with potentially serious ramifications for patients (Kalisch et al., 2011). While the specific impact of missed care on the three hospitals included in this study has not been determined, the negative impact of missed care on patients and staff has been documented clearly in the literature (Cimiotti et al., 2012; Fisher et al., 2010; Lucero et al., 2010; Papastavrou et al., 2013; Stone et al., 2008; Zisberg et al., 2011). The similarities among hospitals in this study suggest effective interventions to reduce missed care would be beneficial within this health care organization.

### Limitations

Kalisch and Williams (2009) and Kalisch and colleagues (2011) discussed a number of limitations of the MISSCARE Survey. One such limitation was the reliance on respondents' perceptions of missed

care, rather than direct observation and chart reviews. Authors noted, however, findings from direct observations and chart reviews also are affected by factors such as perception of the observer or nursing care that might have been completed but not recorded. A second limitation was the possibility of additional reasons for missed care not being included in the list of choices, although reasons listed were developed through comprehensive interviews with focus groups and individual nursing staff members (Kalisch, 2006; Kalisch et al., 2011). Kalisch and Williams (2009) noted respondents' fear of being identified as a factor possibly affecting results, even if careful attention were given to maintaining anonymity.

This study of missed care included a number of additional limiting factors. The 2-week data collection period and 27.3% response rate of this survey should be considered when comparing results to those of the 10-hospital study, which reported a 59.8% response rate and 6-month data collection period (Kalisch et al., 2011). In addition, all hospitals included in the study were owned and operated by the same health care system. Specific characteristics of this system, such as organizational structure, values, and personnel policies, might affect employees' perceptions of care delivery. Data analysis was somewhat limited as more sophisticated statistical programs than those used for this study were not available. More indepth analysis to compare responses within units or similar types of units, and identify variables, such as age or education level, that might affect responses significantly would provide a more comprehensive understanding of study results.

### Nursing Implications

The MISSCARE Survey can provide valuable information for guiding development of patient care improvement strategies by identifying potential or current problem areas that may impact patient care negatively (Kalisch, Landstrom, &

Williams, 2009). The survey also can provide insight on factors influencing patient satisfaction and, in turn, scores on patient satisfaction surveys. For example, timely responses to call lights and requests for analgesia likely affect patient and family satisfaction with the hospital stay. In addition, survey results can help identify trends in nurse turnover as well as reasons for high turnover rates and absenteeism, expensive and prevalent problems that have been linked to missed patient care (Kalisch & Williams, 2009; Tschannen et al., 2010). A survey following implementation of strategies to address problem areas, or following significant changes in hospital policies or procedures, also could provide valuable feedback about their effect on quality of care (Kalisch, Landstrom, & Williams, 2009).

Interventions implemented to reduce missed care may include strategies to improve communication with other departments, improve teamwork on the unit, increase job satisfaction among nursing staff, and improve staffing to accommodate changes in patient acuity and volume (Kalisch, Tschannen, & Lee, 2011b; Kalisch & Lee, 2010). An understanding of the significance of missed care and a strong commitment from management, nursing staff, and related departments are critical, however, to the success of any strategies implemented. Incorporation of this commitment into a hospital's culture of safety will benefit both the health care organization and the patients and staff receiving and providing health care services.

### Recommendations for Future Research

MISSCARE Surveys of North Carolina hospitals owned and operated by differing health care systems would provide additional support for generalizing findings of this and the midwestern MISSCARE Survey study to all acute care hospitals (Kalisch et al., 2011). In addition, further research to better understand the impact of variables

such as work hours, workload, education, and experience on frequency of missed care at Hospitals A, B, and C would provide valuable information for development of effective strategies to address these issues. Research also is needed to determine the effect of recent changes in U.S. health policy on missed nursing care.

## Conclusion

Study findings strengthen the conclusion of a previous, larger study in the midwestern United States indicating missed care is a frequent occurrence in acute care hospitals, with similar types of frequently missed care and reasons for care being missed (Kalisch et al., 2011). In view of the negative impact of missed care on patient outcomes and subsequently on the economic health of the hospital because outcomes are tied to reimbursement, attention to this issue is of upmost importance. Devising and implementing effective strategies will require innovative approaches and teamwork from organizational leaders, nurse managers, and nursing staff. Patients, staff, and health care organizations will benefit as successful approaches to reducing missed care are adopted. **MSN**

## REFERENCES

- Aiken, L.H., Sloane, D.M., Cimiotti, J.P., Clarke, S.P., Flynn, L., Seago, J.N., ... Smith, H.L. (2010). Implications of the California nurse staffing mandate for other states. *Health Services Research, 45*(4), 904-921. doi:10.1111/j.1475-6773.2010.01114.x
- American Nurses Association. (2011). *Nurse staffing plans and ratios*. Retrieved from <http://www.nursingworld.org/MainMenu/Categories/Policy-Advocacy/State/Legislative-Agenda-Reports/State-StaffingPlansRatios>
- Ash, M., & Seago, J.A. (2004). The effect of registered nurses' unions on heart-attack mortality. *Industrial and Labor Relations Review, 57*(3), 422-442.
- Cimiotti, J.P., Barton, S.J., Chavanu Gorman, K.E., Sloane, D.M., & Aiken, L.H. (2012). Nurse reports on resource adequacy in hospitals that care for acutely ill children. *Journal of Healthcare Quality, 36*(2), 25-32. doi:10.1111/j.1945-1474.2012.00212.x
- Fisher, S.R., Kuo, Y., Graham, J.E., Ottenbacher, K.J., & Ostir, G.V. (2010). Early ambulation and length of stay in older adults hospitalized for acute illness. *Archives of Internal Medicine, 170*(21), 1942-1943. doi:10.1001/archinternmed.2010.422
- Kalisch, B. (2006). Missed nursing care: A qualitative study. *Journal of Nursing Care Quality, 21*(4), 306-315.
- Kalisch, B., Landstrom, G., & Hinshaw, A. (2009). Missed nursing care: A concept analysis. *Journal of Advanced Nursing, 65*(7), 1509-1517. doi:10.1111/j.1365-2648.2009.05027.x
- Kalisch, B., Landstrom, G., & Williams, R. (2009). Missed nursing care: Errors of omission. *Nursing Outlook, 57*(1), 3-9. doi:10.1016/j.outlook.2008.05.007
- Kalisch, B., & Lee, K.H. (2010). The impact of teamwork on missed nursing care. *Nursing Outlook, 58*(5), 233-241. doi:10.1016/j.outlook.2010.06.004
- Kalisch, B.J., McLaughlin, M., & Dabney, B.W. (2012). Patient perceptions of missed nursing care. *The Joint Commission Journal on Quality and Patient Safety, 38*(4), 161-167.
- Kalisch, B., Tschannen, D., & Lee, K. (2011a). Do staffing levels predict missed nursing care? *International Journal for Quality in Health Care, 23*(3), 302-308. doi:10.1093/intqhc/mzr009
- Kalisch, B., Tschannen, D., & Lee, H. (2011b). Does missed nursing care predict job satisfaction? *Journal of Healthcare Management, 56*(2), 117-131.
- Kalisch, B., Tschannen, D., & Lee, K. (2012). Missed nursing care, staffing, and patient falls. *Journal of Nursing Care Quality, 27*(1), 6-12. doi:10.1097/NCQ.0b013e318225aa23
- Kalisch, B., Tschannen, D., Lee, H., & Friese, C. (2011). Hospital variation in missed nursing care. *American Journal of Medical Quality, 26*(4), 291-299. doi:10.1177/1062860610395929
- Kalisch, B.J., & Williams, R.A. (2009). Development and psychometric testing of a tool to measure missed nursing care. *Journal of Nursing Administration, 39*(5), 211-219. doi: 10.1097/NNA.0b013e3181a23cf5.
- Lucero, R.J., Lake, E.T., & Aiken, L.H. (2010). Nursing care quality and adverse events in U.S. hospitals. *Journal of Clinical Nursing, 19*(15-16), 2185-2195. doi:10.1111/j.1365-2702.2010.03250.x
- Papastavrou, E., Andreou, P., & Elfstathiou, G. (2013). Rationing of nursing care and nurse-patient outcomes: A systematic review of quantitative studies. *The International Journal of Health Planning and Management, 29*(1), 3-25. doi:10.1002/hpm.2160
- Seago, J.A., Spetz, J., Ash, M., Herrera, C.N., & Keane, D. (2011). Hospital RN job satisfaction and nurse unions. *Journal of Nursing Administration, 41*(3), 109-114. doi:10.1097/NNA.0b013e31820c726f
- Stone, P.W., Pogorzelska, M., Kunches, L., & Hirschhorn, L.R. (2008). Hospital staffing and health care-associated infections: A systematic review of the literature. *Healthcare Epidemiology, 47*(7), 937-944. doi:10.1086/591696
- Tschannen, D., Kalisch, B.J., & Lee, K.H. (2010). Missed nursing care: The impact on intention to leave and turnover. *Canadian Journal of Nursing Research, 42*(4), 22-39.
- Zisberg, A., Shadmi, E., Sinoff, G., Gur-Yaish, N., Srulovici, E., & Admis, H. (2011). Low mobility during hospitalization and functional decline in older adults. *Journal of the American Geriatrics Society, 59*(2), 266-273. doi:10.1111/j.1532-5415.2010.03276.x

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.