

THE JOURNAL OF NURSING ADMINISTRATION

Connecting Patients' Perceptions of Nurses' Daily Care Actions, Organizational Human Caring Culture, and Overall Hospital Rating in Hospital Consumer Assessment of Healthcare Providers and Systems Surveys

Holly Wei, PhD, RN, NEA-BC Julie Kennedy Oehlert, DNP, RN Linda Hofler, PhD, RN, FACHE, NEA-BC Kevin N. Hill, MBA, CPH

OBJECTIVE: The aim of this study was to connect patients' perceptions of nurses' daily care actions with patients' overall ratings of their hospital experience and hospitals' human caring culture.

BACKGROUND: The Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) is a national standardized survey measuring patients' hospital experience. Current literature lacks the connections between patients' perceptions of nurses' daily care actions and their overall hospital experience measured by the HCAHPS survey.

METHODS: This is a correlational study based on the HCAHPS surveys from patients discharged from a hospital in the United States. Correlations were conducted between patients' perceptions of nurses' daily care actions and overall hospital experience.

RESULTS: A total of 3,258 (16.6%) patients returned the HCAHPS survey between January and May 2019. Significant relationships were found among patients'

perceptions of nurses' daily care actions, hospitals' caring culture, and overall experience.

CONCLUSION: Nurses' daily care actions significantly contribute to favorable patients' overall hospital ratings on HCAHPS.

The Hospital Consumer Assessment of Healthcare Providers and System (HCAHPS) is a national standardized survey implemented by the Centers for Medicare & Medicaid Services (CMS) to measure patients' hospital experience. The report of HCAHPS data was launched voluntarily in July 2006 and became mandatory for hospitals participating in the Inpatient Prospective Payment Program of Medicare in July 2007. In October 2012, HCAHPS became one of the measures determining value-based incentive payment in the hospital value-based purchasing program.² Understanding patient experience can provide opportunities for healthcare systems to improve patients' perceptions of their care, impacting choice and loyalty, and ultimately contributing to CMS reimbursements.

In hospitals, patients' experience is significantly associated with organizational performance metrics. With the value-based payment program, hospitals have been specifically focusing on the interactions between healthcare professionals and patients to ensure that patients experience a positive stay in the hospital and also recommend the facility to others.³ Scores on

The authors declare no conflicts of interest.

Correspondence: Dr Wei, Advanced Nursing Practice & Education, College of Nursing, East Carolina University, 3123 Health Sciences Building, Greenville, NC 27858 (weih16@ecu.edu). DOI: 10.1097/NNA.0000000000000019

Author Affiliations: Associate Professor (Dr Wei), Graduate Nursing Leadership Concentration, East Carolina University College of Nursing; and Chief Experience Officer (Dr Oehlert), Senior Vice President–Nurse Executive (Dr Hofler), and Director of Analytics, Office of Experience (Mr Hill), Vidant Health, Greenville, North Carolina.

the HCAHPS account for 25% of the value-based purchasing payments to hospitals. ^{1,2} Hospital administrators have focused on patients' experience as a way to avoid a negative impact on CMS reimbursement. Some organizations have invested in external amenities, such as fine-dining and the state-of-art rooms and technologies, and others have emphasized communication and leadership training to improve HCAHPS scores. ^{3,4} One strategy that gains attention is nurse leader rounding, which has shown positive effects on nurse performance. ^{5,6} Although these services and initiatives are valuable approaches, CMS reports that patients' hospital overall HCAHPS scores have the strongest relationship with the nursing communication composite. ⁷

Nursing makes up most of the workforce in healthcare. Nurses are key in providing excellent patient care in hospitals. Nurses' caring actions influence patients' experience and care quality. Utrrently, the literature lacks the connections between patients' perceptions of nurses' daily care actions and their overall hospital experience measured by the HCAHPS survey. This information will be invaluable for hospital leaders to validate the value of nurses' daily care. Therefore, the purpose of this study is to connect patients' perceptions of nurses' daily care actions with patients' overall ratings of the hospital experience and hospitals' human caring culture.

Background

The HCAHPS survey was created to offer comparable data on patient perspectives on their hospital experiences. Patient experience is referred to as patients' perspectives on their interactions with the healthcare system and healthcare professionals. 11 It is significantly correlated with patients' clinical outcomes, adherence to treatment, preventive regimens, length of hospital stays, and occurrences of healthcare utilization, such as readmission rate. 11,12 Whereas most HCAHPS survey items assess the patient's experience in the hospital, 2 of the survey questions ask for the patient's overall impressions of the hospital stay: the "overall rating of the hospital" and "would you recommend the hospital." The "overall rating," as a single representation of patients' overall hospital experience, is included in the value-based payment incentives and has become a surrogate in the healthcare industry for patient loyalty and indicator or patient choice.

The HCAHPS survey measures patients' ratings of their hospital experience. What is lacking is the relationship between patients' perceptions of nurses' daily care actions and their hospital experience. To help nurses and hospital administration understand these connections, Press Ganey, an approved vendor to distribute the HCAHPS survey, collaborated with Watson Caring Science Institute, an international nonprofit organization created to advance the

philosophies, theories, and practices of human caring, to integrate 5 Watson Caritas Human Caring (WCHC) questions in the inpatient HCAHPS questionnaires. ¹³ These questions are as follows: 1) delivered my care with loving-kindness; 2) met my basic human needs with dignity; 3) created helping and trusting relationships with me; 4) valued my personal beliefs and faith, allowing for hope; and 5) created a caring environment that helps me heal.

The integration of the WCHC questions in the HCAHPS survey aims to link nurses' caring actions to patients' hospital experiences and further demonstrate and affirm the philosophies and theories of human caring in nursing practice. Limited studies have been done to connect nurses' daily care actions with patients' experience and organizations' caring culture. This study will help nurses, nurse leaders, and hospital administrators recognize the values of nurses' daily care actions in patients' overall hospital HCAHPS ratings and implement and support strategies to further advance the human caring culture of the organizations.

Methods

Design

This is a quantitative cross-sectional, correlational institutional review board study.

Setting

This study was carried out in a health system located in the southeast of the United States. This health system is a not-for-profit, academic healthcare system. It comprised of 9 hospitals and 14,000 employees. The HCAHPS data of this study were obtained from patients discharged from the 974-bed flagship academic medical center of the system.

Sample

Patients discharged from the medical center from January to May 2019 who met the criteria for HCAHPS, as described by the CMS, received the HCAHPS survey that included the WCHC questions after they were discharged from the hospital. The criteria for patients to receive the survey were that patients: *a*) were 18 years or older on admission; *b*) had at least 1 overnight stay in the hospital as an inpatient; *c*) had a nonpsychiatric principal diagnosis at discharge; and *d*) were alive at discharge.

Measures

The HCAHPS Survey

The "top-box" overall rating of the hospital is the data used in this study. The HCAHPS results are publicly reported on Hospital Compare as "top-box," "bottom-box," and "middle-box" scores. The "top-box" indicates patients' most positive responses to HCAHPS survey questions.

5 WCHC Questions

Five WCHC questions are added to the standard HCAHPS survey as described earlier. The rating scale for the WCHC ranges from very poor to poor, fair, good, and very good.

5 Nurses' Daily Care Actions Questions

Five nurses' daily care action questions are yes/no questions added to the standard HCAHPS survey. These questions are: 1) During this hospital stay, was the culture at the health system relationship-focused? 2) During your hospital stay, did a care team leader visit you? 3) During this hospital stay, did your care team go over your patient visit guide including the SMART checklist¹⁴ (S–signs and symptoms, M–medications, A–appointments, R–results, and T–tell us now) as a way to partner with you in your discharge planning? 4) During your hospital stay, did your care team use the communication whiteboard in your room to communicate with you and your family? And 5) did a member of the care team check on you frequently during your hospital stay?

Data Collection

The HCAHPS survey for this medical center is administered by Press Ganey. Surveys were sent by mail, text, or email. The data collected were anonymous. The deidentified data for this study were collected from patients discharged between January 1 and May 30, 2019.

Data Analysis

Descriptive statistics were conducted to describe the participants' demographics. A χ^2 test was conducted to examine the correlations between patients' perceptions of nurses' daily care actions, WCHC questions, and the top-box rating (most positive rating) of patients' overall hospital experience. P values were set to be .05 to be considered statistically significant.

Results

Demographics of Participating Patients

There were 19,601 inpatients discharged from the medical center between January and May 2019. A total of 3,258 (16.6%) patients returned the survey during the period. Fifty-six percent (n = 1826) of the patients were women and 44% (n = 1432) were men. Most of the patients (n = 2279; 70%) were white, 854 (26.20%) were black, 53 (1.60%) were Hispanic or Latino, and 7 (0.20%) were Asian. The rest included American Indian or Alaska (n = 7; 0.20%), unknown (n = 26; 0.80%), 2 or more races (n = 8; 0.20%), and other (n = 22; 0.70%). Most of the participating patients' education level was some college (n = 1110; 34.70%), followed by graduate from high school (n = 840; 26.30%), 4-year college (n = 439; 13.70%), more than 4-year college (n = 413; 12.90%), some high school

(n = 234; 7.30%), and 8th grade or less (n = 159; 5.00%). Patients' demographics are listed in Table 1.

Relationships Among Nurses' Daily Care Actions, Patient Perceptions of Caring, and Overall Rating of the Hospital

To best understand the connections between specific nursing daily actions, each of the nurses' daily care actions was linked to one of the WCHC questions. For example, nurses' daily care action of "reviewing the patient visit guide/SMART checklist" was linked to the WCHC question of "delivered my care with loving-kindness." Nurses' daily care action of "checking on patients frequently" was linked to the WCHC question of "met my basic human needs with dignity." The question of "care team leaders visited you" was linked to the WCHC question of "creating a helping and trusting relationship with me." The question of "nurses used the communication whiteboards" was connected to the WCHC question, "create a caring environment that helps me heal." Lastly, the question about patients' perceptions of whether the hospital had a relationship-focused culture was correlated with the WCHC question of "value my personal beliefs and faith allowing for hope."

Relationships Between Human Caring and Patients' Overall Top-Box Rating of the Hospital

Based on the analysis, patients' perceptions of nurses' daily care actions were significantly correlated with

159 234 840 110 0 439 413 288 338 310 792 172	5.00 7.30 26.30 34.70 0.00 13.70 12.90 8.80 10.40 9.50 24.30
234 840 110 0 439 413 288 338 310 792	7.30 26.30 34.70 0.00 13.70 12.90 8.80 10.40 9.50 24.30
840 110 0 439 413 288 338 310 792	26.30 34.70 0.00 13.70 12.90 8.80 10.40 9.50 24.30
110 0 439 413 288 338 310 792	34.70 0.00 13.70 12.90 8.80 10.40 9.50 24.30
0 439 413 288 338 310 792	0.00 13.70 12.90 8.80 10.40 9.50 24.30
439 413 288 338 310 792	13.70 12.90 8.80 10.40 9.50 24.30
413 288 338 310 792	8.80 10.40 9.50 24.30
288 338 310 792	8.80 10.40 9.50 24.30
338 310 792	10.40 9.50 24.30
338 310 792	10.40 9.50 24.30
310 792	9.50 24.30
792	24.30
172	
1/4	36.00
358	11.00
826	56.00
432	44.00
279	70.00
854	26.20
53	1.60
26	0.80
7	0.20
8	0.20
8	0.20
	279 854 53 26 7 8

patients' HCAHPS top-box overall rating and answers to the 5 WCHC questions. The relationships were described as follows and illustrated in Tables 2 and 3.

Patients' Perceptions of Reviewing Patient Visit Guide, Delivering Care With Loving Kindness, and the Overall Top-Box Rating of the Hospital in HCAHPS

Patients who answered yes to "reviewing the patient visit guide/SMART checklist" scored significantly higher on the WCHC question of "delivering care with loving-kindness" (P = .0009) and rated their overall care as 9 to 10, overall top-box rating, in the HCAHPS, significantly higher than the patients who said no to the question "nurse reviewed the patient visit guide" (P = .0068). In this case, when nurses took the time to go over the patient visit guide, patients' perceptions of loving-kindnesses were 26.1% points higher than those who said no to the question nurse that the nurse reviewed the patient visit guide. When patients affirmed that nurses reviewed the patient visit guide with them, patients' overall top-box rating was 24.8% points higher than those who denied that nurses went over the patient visit guide. Patients' perceptions of nurses' reviewing the patient visit guide were statistically directly correlated with their perceptions of loving-kindness and the overall top-box rating in the HCAHPS survey.

Patients' Perceptions of Being Checked on Frequently, Met My Basic Human Needs With Dignity, and the Overall Top-Box Rating of the Hospital in HCAHPS

Patients who answered yes to "being checked on frequently" perceived significantly higher ratings in the WCHC question "met basic human needs with dignity" (P = .0160) and rated their overall care as 9 to 10, overall top-box rating, in the HCAHPS, significantly higher (P = .0033) than the patients who did

Table 2. Associations Between Nurses' Daily Care Actions and Patients' Perceptions of Human Caring Culture

Intervention	WCHC Questions	P
Patient visit guide	Loving-kindness	.0009 ^a
Frequent check-in	Basic needs being met	.0160 ^t
Care team leader visit	Trusting relationship	.1070
Culture is relationship-focused	Valued personal beliefs and faith	.0046ª
Communication whiteboards	Healing environment	.0570
^a P< .01.		
^b P< .05.		

Table 3. Associations Between Nurses' Daily Care Actions and Patients' Top-Box Rating of the Hospital

Nursing Daily Care Interventions	Top Box Rating of the HCAHPS Survey ^a	P
Patient visit guide Frequent check-in Care team leader visit Culture is relationship focused	Top Box (9 or 10) Top Box (9 or 10) Top Box (9 or 10) Top Box (9 or 10)	.0068 ^b .0033 ^b .0790 .0001 ^b
Communication whiteboards	Top Box (9 or 10)	.0670

 $^{^{\}rm a}$ The "top-box" rating is the most positive response to the HCAHPS survey questions. $^{\rm b}P$ < .01.

not feel that they were checked on frequently during their hospital stay. In this case, when patients affirmed that they were being checked on frequently during their hospital stay, their perceptions of basic needs being met were 33.2% points higher, and the overall top-box rating was 44.8% points higher than those who did not feel that they were being checked on frequently during the hospital stay. Patients' perceptions of being checked on frequently were statistically directly correlated with their perceptions of basic human needs being met and the overall top-box rating in HCAHPS.

Patients' Perceptions of Care Team Leader Visit, Creating Helping and Trusting Relationships, and the Overall Top-Box Rating of the Hospital in HCAHPS

Patients who said that "care team leaders visited them during the hospital stay" did not score the WCHC question of "helping and trusting relationships" significantly higher than those who did not report care "team leaders visited them" (P = .1070), neither did they score significantly higher on the overall rating for the hospital in the HCAHPS survey (P = .0790). In this case, when patients agreed that "care team leaders visited them," their perception of "helping and trusting relationships" score was 22.6% points higher than that of patients who did not perceive that "care team leaders visited them," and the patient overall top-box rating was 22.3% points higher between patients who did and did not acknowledge that a care team leader visited them. The differences were not significant.

Patients' Perceptions of the Utilization of Communication Whiteboards, Creating a Caring Environment That Helps Heal, and the Overall Top-Box Rating of the Hospital in HCAHPS

Patients who perceived that nurses used communication whiteboards to communicate during their hospital stay did not score significantly higher on creating a caring environment question (P = .0570) or hospitals' overall top-box (9-10) rating than patients who did not affirm the usage of the communication whiteboard during their hospital stay (P = .0670). When patients affirmed that nurses utilized the communication board, the perception of creating a caring environment that helped me heal question's top-box rating of the hospital was 24.6% points higher than the patients who did not perceive that the communication board was used, and the patient overall top-box rating was 20.2% points higher. The differences were not statistically significant.

Patients' Perceptions of the Hospitals' Relationship-Focused Culture, Value of Personal Beliefs and Faith Allowing for Hope, and the Overall Top-Box Rating of the Hospital in HCAHPS

Patients who perceived that the hospital culture was relationship focused scored significantly higher on valuing personal beliefs (P = .0046) and top-box (9-10) rating on overall care (P = .0001). When patients perceived that the hospital had a relationship-focused culture, patients' perceptions of valuing personal beliefs score was 53.6% points higher than that of those who did not have the same perceptions, and the overall top-box rating was 67.1% points higher. Patients' perceptions of hospital relationship-based culture were statistically directly correlated with their perceptions of valuing patients' personal beliefs and their overall top-box rating in HCAHPS.

Discussion

Nurse caring is a crucial driver of patients' perceptions of caring and whether they choose an organization and recommend it to others. Patients' choice and loyalty are vital for hospitals' reputation and financial viability. Findings show that patients perceive nurses' daily care actions, such as providing patients with a patient visit guide, checking on patients frequently (commonly called hourly or purposeful rounding), and demonstrating a relationship-focused culture, as signs of caring. Nurses' daily care actions are positively associated with a higher overall rating of the hospital. However, care team leader visits (commonly referred to as nurse leader rounding) and communication whiteboard usage are not significantly related to patients' perceptions of caring based on their associated WCHC questions, nor are they related to the overall rating of the hospital, which is contrary to the current literature.³⁻⁶

Nurses' daily care actions of providing patients with a patient-visit guide and checking on patients frequently are significantly correlated with patients' perceptions of caring and overall rating. These actions may be seen as trivial. However, it is these

actions during a patients' hospitalization that make patients feel cared for. For patients hospitalized, nothing that healthcare providers do is considered too small. Caring nurses will demonstrate the characteristics of CARE—competence in knowledge, altruism in performance, responsibility in actions, and empathy in care. Nurses' taking the time to sit down and review the patient visit guide with them and checking on patients frequently deliver a message of human caring and embody the characteristics of CARE.

We find that the team leader rounding and communication whiteboard usage are not significantly correlated with patients' perceptions of caring or their top-box (most positive) rating of the hospital. These findings need more investigation. One reason may be that although these actions are important to care team leaders and care teams, which provides a communication channel between nurses and patients, patients may not signify them as caring. Another reason may be how these actions are delivered to patients, meaning that these actions may be delivered in a way that patients perceive as "superficial" or lack authenticity, with no feeling of caring behind the actions. Both of these actions have been operationalized in the past years as tactics to improve patient experience and have been tracked, logged, and reported on checklists.

Caring by its very nature must be perceived as authentic. The authenticity of the delivery of nurses' daily care actions is key in making the difference in patients' hospital experience. This may explain the finding that patients' perceptions of the hospital's relationship-focused caring culture are positively correlated with their perceptions of the overall hospital experience. Hospital cultures affect patients' experiences, which has a significant relationship with patient care quality and safety. 18,19 A current report 18 shows that 91% of the consumers indicate that patient experience is extremely or very important to them and is essential to their healthcare decisions. Thus, most consumers choose or recommend healthcare organizations based on the experiences that they have had at that hospital. We now know that nurses' daily care actions are crucial to patients' overall hospital experiences.

Patients consider human caring interactions as an important factor affecting their experiences. ^{18,20,21} This supports the study's finding that patients relate their overall rating of the hospital to whether they perceive the culture as relationship focused, which is correlated with the WCHC question "values personal beliefs, allowing for hope." Concerns are often voiced by patients when they experience uncaring human interactions, such as healthcare professionals' uncaring attitudes and lack of communication skills. ^{21,22} A caring culture is the essence of organizations' success in

delivering patient care.²³ These findings indicate that when nurses' daily care actions demonstrate human caring, they will improve hospital overall HCAHPS rating. Nurses, thus, are not "cost" but "capital" to healthcare organizations.

Limitations

Some limitations face this study. Three main limitations will be described, which are related to the data collected. Because the data were collected based on patients' anonymous and voluntary characters, it is not possible to follow up with some phenomena found in the study, such as care team leader visited and communication whiteboard usage. This limitation, however, provides motivation for further study. Another limitation is the low survey return rate of 16% for the time of the study. The 3rd limitation is that for this study, the mean scores were not collected. The data also reflect 1 academic medical center and may not be representative of other medical centers.

Implications for Nurse Executives

Nurse leaders are the anchor for nurses' performance and actions, making leaders a key driver for patient care quality. 19,24 They play a crucial role in designing systems and processes to support exemplary nurse professional practice.^{25,26} The findings of this study indicate a significant relationship between nurses' daily care actions, patients' perceptions of the hospital's caring culture, and patients' overall rating of the hospital. Nurse executives are responsible for leading nursing care delivery in a manner that is designed to improve the overall rating of hospital patient experiences. Nurse executives set the tone for nursing practice and nursing professional models of care that support human caring and, in many settings, have not had data to support or prove the value of nursing as a significant driver of the overall patient experience, as well as patient loyalty and choice.

Loyalty and choice have implications for market share growth, community confidence, and the financial success of a healthcare organization.

Nurse leaders can allocate time and attention to ensure that nurses' daily care actions are the front and center in nurses' orientation and continued nurse education. They need to ensure that nurses' daily care actions are protected and that nurses have time to deliver them, which, this study shows, will be time and attention well spent. Nurses can and do support the hospitals' reputation and bottom line. In this current healthcare environment of multiplying and growing nurses' responsibilities, this study showcases the value of what nurses do every day and offers nurse executives the fuel to promote and protect nurses' daily care actions as key contributors to the financial success and well-being of the hospital.

Conclusion

The findings provide a challenge and opportunity for nurse leaders to better understand the current tactics used to impact patient experience. It is necessary to explore whether the delivery of some of the nurses' daily care actions truly influences patients' perceptions of human caring and contributes to organizations' caring culture. Nurses' daily care actions are vital in ensuring positive patients' experience and hospitals' caring reputation. Nurses play a vital role in promoting patients' overall hospital experience and organizational caring culture. They are key stakeholders of patient care quality and, thus, hospitals' financial sustainability and viability.

Acknowledgments

The authors would like to thank the Vidant Health nurses who continue to inspire us to explore, value and promote human caring.

References

- The Centers for Medicare & Medicaid Services. HCAHPS: patients' perspectives of care survey. https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HospitalQualityInits/ HospitalHCAHPS.html. Updated 2017. Accessed March 20, 2020.
- The Centers for Medicare & Medicaid Services (CMS). Value-based payment modifier. https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/PhysicianFeedbackProgram/ValueBasedPaymentModifier.html. Updated 2017. Accessed March 20, 2020.
- Mazurenko O, Collum T, Ferdinand A, Menachemi N. Predictors of hospital patient satisfaction as measured by HCAHPS: a systematic review. *J Healthc Manag.* 2017;62(4):272-283.
- 4. Briggs K, Sharma L, Chandrasekaran A, Douglas C, Aroh D,

- Finefrock D. The effect of a hybrid training program. *Nurs Manage*. 2018;49(2):51-53.
- Sexton JB, Sharek PJ, Thomas EJ, et al. Exposure to leadership WalkRounds in neonatal intensive care units is associated with a better patient safety culture and less caregiver burnout. BMJ Qual Saf. 2014;23(10):814-822.
- Sexton JB, Adair KC, Leonard MW, et al. Providing feedback following leadership WalkRounds is associated with better patient safety culture, higher employee engagement and lower burnout. BMJ Qual Saf. 2018;27(4):261-270.
- Hospital Consumer Assessment of Healthcare Providers and Systems. CAHPS hospital survey. https://hcahpsonline.org/. Updated 2020. Accessed March 20, 2020.

- Stimpfel AW, Sloane DM, McHugh MD, Aiken LH. Hospitals known for nursing excellence associated with better hospital experience for patients. *Health Serv Res.* 2016;51(3): 1120-1134.
- Olds DM, Aiken LH, Cimiotti JP, Lake ET. Association of nurse work environment and safety climate on patient mortality: a cross-sectional study. *Int J Nurs Stud.* 2017;74:155-161.
- Hill K. Improving quality and patient safety by retaining nursing expertise. OJIN Online J Issues Nurs. 2010;15(3). doi: 10.3912/OJIN.Vol15No03PPT03.
- Agency for Healthcare Research & Quality. What is patient experience?. https://www.ahrq.gov/cahps/about-cahps/patient-experience/index.html. Updated 2017. Accessed March 20, 2020.
- Wynn JD. The value of exceptional patient experience. N C Med J. 2016;77(4):290-292.
- Watson J. Unitary Caring Science: The Philosophy and Praxis of Nursing. Louisville, CO: University Press of Colorado; 2018.
- Institute for Healthcare Improvement. SMART discharge protocol. 2019. http://www.ihi.org/resources/Pages/Tools/SMARTDischargeProtocol.aspx. Accessed March 20, 2020.
- Wei H, Roscigno CI, Swanson KM. Healthcare providers' caring: nothing is too small for Parents and Children hospitalized for heart surgery. *Heart Lung*. 2017;46(3):166-171.
- Wei H, Wei T, Brown KJ, Buck SH, Mill MR. Parents' perceptions of caring characteristics of physicians and nurses. *Int J Hum Caring*. 2018;22(1):49-55. doi:10.20467/1091-5710.22.1.pg47.
- 17. Fang F, Zhu H, Li X, Wei H. Nurses' perceptions of caring: a

- directed content analysis based on the CARE model. *Int J Hum Caring*. 2020;24(1):50-58. doi:10.20467/1091-5710.24.1.50.
- Wolf JA. Consumer Perspectives on Patient Experience 2018.
 Nashville, TN: The Beryl Institute; 2018.
- Wei H, Sewell KA, Woody G, Rose MA. The state of the science of nurse work environments in the United States: a systematic review. *Int J Nurs Sci.* 2018;5(3):287-300.
- Wei H, Watson J. Healthcare interprofessional team members' perspectives on human caring: a directed content analysis study. *Int J Nurs Sci.* 2019;6(1):17-23.
- Ming Y, Wei H, Cheng H, Ming J, Beck M. Analyzing patients' complaints: awakening of the ethic of belonging. ANS Adv Nurs Sci. 2019;42(4):278-288. doi:10.1097/ANS.00000000000000278.
- Wei H, Ming Y, Cheng H, Bian H, Ming J, Wei TL. A mixed method analysis of patients' complaints: underpinnings of theory-guided strategies to improve quality of care. *Int J Nurs Sci.* 2018;5(4):377-382. doi:doi.org/10.1016/j.ijnss.2018.06.006.
- Wei H, Corbett RW, Ray J, Wei TL. A culture of caring: the essence of healthcare interprofessional collaboration. *J Interprof Care*. 2020; 34(3):324-331. doi:10.1080/13561820.2019.1641476.
- 24. Wei H, Roberts P, Strickler J, Corbett RW. Nurse leaders' strategies to foster nurse resilience. *J Nurs Manag.* 2019;27(4): 681-687. doi:10.1111/jonm.12736.
- Hofler L, Thomas K. Transition of new graduate nurses to the workforce: challenges and solutions in the changing health care environment. N C Med J. 2016;77(2):133-136.
- 26. Hofler L, Oehlert JK. What's love got to do with it? *Nurse Lead*. 2020;18(1):40-43.