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## The Effects of the HCAHPS Learning Module on Undergraduate Nursing Students During the Simulated Hospital Day

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THE EFFECTS OF THE HCAHPS LEARNING MODULE ON  
UNDERGRADUATE NURSING STUDENTS DURING  
THE SIMULATED HOSPITAL DAY

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We recommend the doctoral project prepared under our supervision by

**Ronnie Stout**

entitled

**The Effects of the HCAHPS Learning Module on Undergraduate Nursing Students  
During the Simulated Hospital Day**

is approved in partial fulfillment of the requirements for the degree of

**Doctor of Nursing Practice**

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## Abstract

The introduction of the Affordable Care Act has brought about change in the way the Centers for Medicare and Medicaid Services (CMS) reimburses for hospital care. Hospitals are being rewarded for making the patient experience a positive one as evaluated by the patients. This information is provided through the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey. These survey results allow consumers to compare hospitals locally and nationally with other hospitals. Patients are able to evaluate the hospitals in their area and make informed decisions about where they want to get their care based on previous patients' experiences. In addition to comparisons with other hospitals, facilities are eligible for improved reimbursements based on the HCAHPS scores. With these two incentives it is in the hospital's best interest to maximize the opportunity to improve the patient experience.

With this new focus on reimbursement, hospitals are placing more emphasis on customer service training for their staff and newly hired graduate nurses. This training is focused on improving patient care while at the same time improving the patients' responses on the HCAHPS survey. Introducing these concepts to undergraduate nursing students will prepare them for expectations they will experience as staff nurses.

The aims addressed in this project were to assess if the undergraduate nursing students' knowledge of HCAHPS and practice could be improved through the implementation of the HCAHPS Survey tool and Learning Module during simulation activities. The undergraduate nursing students' baseline knowledge of HCAHPS was established, students were provided education through the HCAHPS Learning Module, and an HCAHPS survey was completed on the care they received. The students'

HCAHPS knowledge and practice were assessed. The results showed a statistically significant improvement in the participants' HCAHPS knowledge. There was no statistical significance noted related to the practice between the students as nurses on Day one or Day two.

This project educated the students on how the HCAHPS survey assesses the patient experience and the impact the nurse can have to improve the patients' responses. This type of training is a win-win for both the hospital and the undergraduate students. The students have been educated and have experience with HCAHPS which should lead to reduced orientation time, more marketability and provide more competent patient centered care.

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## Introduction

The implementation of the Affordable Care Act has brought about new opportunities in health care. One of these opportunities for inpatient health care providers is improving the patient's experience. The Centers for Medicare and Medicaid Services (CMS) implemented the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey in 2006 to measure patients' perspectives of hospital care (cms.gov, 2014). This is the first publicly reported survey of patients' perceptions of their hospital care. HCAHPS is a data collection tool measuring patients' perceptions of their hospital experience (Long, 2012).

Three broad goals shape the HCAHPS Survey. First, the survey is designed to produce comparable data on patients' perspectives of care that allows objective and meaningful comparisons among hospitals on topics that are important to consumers. Second, public reporting of the survey results is designed to create incentives for hospitals to improve quality of care. Third, public reporting serves to enhance public accountability in health care by increasing transparency (cms.gov, 2014).

Based on the results of this survey, hospitals are compared nationally with other hospitals. Patients are able to evaluate the hospitals in their area and make informed decisions about where they want to get their care based on previous patient's experiences. In addition to comparisons with other hospitals, facilities are eligible for improved reimbursements based on the HCAHPS scores. With these two incentives it is in the hospital's best interest to maximize the opportunity to improve the patient experience. Through staff training and education, healthcare providers will understand where the patient experience expectations have been established and what specific efforts can be

made to ensure a quality evaluation. Educating undergraduate nurses on the HCAHPS process will begin the necessary transformation to ensure the patient's experience is maximized at all levels.

### **Problem Statement**

Can undergraduate nursing students' knowledge of HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems) and practice be improved through the implementation of the HCAHPS Learning Module and survey during simulation activities?

### **Review of the Literature**

The Centers for Medicare & Medicaid Services (CMS), the federal agency that runs Medicare, is changing the way Medicare pays for hospital care by rewarding hospitals for delivering services of higher quality and higher value ([www/Medicare.gov/Hospital Compare](http://www/Medicare.gov/Hospital Compare)). This payment is being determined by the score a hospital obtains on its HCAHPS survey. Essentially, HCAHPS is the first national, standardized, publically reported survey of patients' perspectives of hospital care. It was developed by the CMS together with the Agency for Healthcare Research and Quality (AHRQ), another agency in the Department of Health and Human Services (Studer, 2010). This marks the first time perceptions regarding the quality of nursing care will be directly linked to hospital reimbursement (Long, 2012).

According to CMS, the survey was shaped by three overarching goals:

1. To produce comparable data on patients' perspectives of care so that consumers can make objective and meaningful comparisons among hospitals.

2. To create incentives for hospitals to improve their quality of care.
3. To enhance public accountability in healthcare by increasing the transparency of the quality of hospital care.

(U.S. Department of Health & Human Services, 21 April 2010)

These overarching goals are game changers in the healthcare industry. Instead of only paying for the number of services a hospital provides, Medicare is also paying hospitals for providing high quality services (Medicare.gov, 2014). This payment is determined by the voice of the consumer. The patient has been placed in a key role where he/she can determine if a hospital should be paid for the quality of its work. Beginning with fiscal year 2013, inpatient hospitals will see a 1% reduction in their Medicare payments (Eldridge, 2011). Not only does an improved patient experience effect reimbursement, but an article published in the New England Journal of Medicine (Studer, 2010) reported that quality of care was significantly better in hospitals that performed better on HCAHPS. The data also supports that the patient's experience is linked to improved clinical care, reduced medical error, and advanced performance outcomes. Long (2012) discusses how through improved responsiveness of hospital staff (such as hourly rounding) can reduce patient falls by 50% and pressure ulcers by 14%.

Since healthcare organizations need to maximize their reimbursement margins, great focus is now being placed on how their healthcare workers are performing at the bedside. The Patient Experience of Care Domain scores as described by Medicare encompass eight important aspects of hospital quality:

- Communication with nurses - This means nurses explained things clearly, listened carefully, and treated the patient with courtesy and respect.

- Communication with doctors - This means doctors explained things clearly, listened carefully, and treated the patient with courtesy and respect.
- Responsiveness of hospital staff - This means the patient was helped quickly when he or she used the call button or needed help in getting to the bathroom or using a bedpan.
- Pain management - This means the patient's pain was well controlled and hospital staff did everything they could to help.
- Cleanliness and quietness of hospital environment - This means the patient's hospital room and bathroom were kept clean and the area around the patient's room was quiet at night.
- Communication about medicines - This means the staff told the patient what the medicine was for and what side effects it might have before they gave it to the patient.
- Discharge information - This means the hospital staff discussed the help the patient would need at home and patient was given written information about symptoms or health problems to watch for during recovery.
- Overall rating of hospital - Shown as percentage of patients whose overall rating of the hospital was '9' or '10' on a scale from 0 (low) to 10 (high) (Medicare.gov, 2014).

Nurses can make an impact on 7 out of 8 of the above domains. To fulfill the mission and maximize for pay-for-performance-related reimbursement, the hospital needs to deliver high-quality, efficient, and responsive care consistently (Studer, 2010). In a strategy for success with HCAHPS data, it's imperative that all employees understand the importance of HCAHPS scores to the institution, and the potential impact each employee has on impacting the patient experience (Long, 2012). This is why hospitals are placing great emphasis and resources to educate and train the current nursing staff and the new graduates on how to improve the patient experience and how the HCAHPS survey is connected to reimbursement. Kennedy (2013) reports that patients' perceptions of their overall hospital experience are directly related to the quality of nursing care they receive. The introduction and education regarding HCAHPS at the undergraduate level allows this project to begin the foundation of improving the patient experience and the organizations reimbursement.

## **Needs Assessment**

The introduction of the Affordable Care Act has brought about change in the way the CMS reimburses for hospital care. No longer is CMS only paying for the number of services a hospital provides, Medicare is also paying hospitals for providing high quality services (Medicare.gov Hospital Compare). Hospitals are being rewarded for making the patient experience valued by the patients. This information is provided through the HCAHPS survey. With this new focus on reimbursement, hospitals are placing more emphasis on customer service training for their nurses and staff. This hospital training is focused on improving the care of the patients while at the same time trying to improve the patient's responses on the HCAHPS survey. Therefore this project is focused on educating undergraduate nursing students about HCAHPS through simulation and should reinforce the hospitals' efforts once the students become employees.

## **Population**

Approximately 3,000 inpatient facilities across the country are affected by this change in reimbursement (Medicare.gov Hospital Compare). Bedside nurses have a major impact on the patient experience and ultimately the reimbursement rates and therefore must be educated and motivated to provide quality care.

## **Stakeholders**

Stakeholders include students, nurses, patients, healthcare organizations and insurers. The needs of these stakeholders have been identified through biannual community partner meetings. Their feedback regularly addresses the need for new graduates to be aware of the new reimbursement challenges and how they can make an

immediate impact on the patient experience. The chief nursing officers (CNO) of the facilities are also stakeholders because they are greatly impacted by the HCAHPS surveys, as reflected in their evaluations.

### **Organizational Assessment**

Within hospitals across the nation, significant resources were being placed on new hire training and current staff retraining to improve the patient experience. The depth of the commitment by the hospital industry is evidenced by the amount of time, money and effort that is being placed in this training. This project supports hospitals' goals perfectly align in trying to improve the graduate nurses' understanding and practice of patient-centered care.

### **Resources**

Resources included the students' time to be introduced to the project and complete the training module. A statistician was contracted to compile the data. Tool development required validity and reliability acquisition and my time. Additional resources were minimal since the project was implemented during the already established Simulated Hospital Day which occurred sixteen times a semester for the undergraduate nursing program.

### **Outcomes**

Undergraduate nursing students obtained knowledge of the patient experience and how this affects the HCAHPS survey.

### **SWOT**



- Strengths
  - Established tool (HCAHPS) valid and reliable
  - Established activity to implement the study (Simulated Hospital Day)
  - Sample size of approximately two hundred participants
  - Important topic for our hospital based customers
  - Translates academics to practice
- Weaknesses
  - New information for the students
  - Students may not see this as important for their careers
  - First time survey tool used
- Opportunities
  - Conduct this project during multiple semesters
  - Use this project at any hospital focused on the patient experience
  - Use this project at multiple nursing schools
- Threats
  - Change in the focus of the government requirements
  - Providers not focused on the patient experience

### **Team Selection**

Committee members have been selected for their background in simulation and business, which are two key components of this project. A statistician was also included to assist with the data analysis.

### **Cost-Benefit**

The cost to implement the study was minimal. Hospitals are placing significant resources into training new graduate and current nurses on the importance of the patient experience. An opportunity to reduce orientation time for new graduates because they have already been exposed to HCAHPS would be a win-win for both the hospital and the students. Improved top box scores due to new graduates providing a better patient experience will also improve the hospital's reimbursement rates, which make this project mutually beneficial.

### **Scope**

This project educated undergraduate nursing students on how the CMS HCAHPS survey assesses the patient experience and the impact the nurse can have to improve the patient's responses. This was accomplished by providing education to the undergraduate nursing student during their Simulated Hospital Day experience in the simulation lab. To ensure the goals were accomplished a pretest assessment of undergraduate nursing students' knowledge of the HCAHPS survey was compared to a posttest assessment of the students' HCAHPS knowledge.

### **Mission**

The purpose of this project is to enhance the nurses' knowledge of the HCAHPS survey. The priority population was undergraduate nursing students in one BSN university. This was accomplished by conducting a baseline core knowledge survey of HCAHPS, providing an educational program to improve their knowledge, and reassessing their knowledge and practice upon completion of the study.

### **Goals and Objectives**

- Determine undergraduate nursing students' baseline knowledge of HCAHPS.
  - The project leader implemented an HCAHPS pretest assessment tool prior to any training/simulation in the Center for Simulation.
  - The tool provided a baseline of HCAHPS core knowledge.
  - The Medical/Surgical students, prior to their practicum, were the participants.
- Provide education related to HCAHPS.
  - Education was provided by the project leader via power point presentation prior to simulation activities and during the Simulated Hospital Day.
  - The actual HCAHPS survey was completed by the students upon completion of their Simulated Hospital Day rating their providers care.
- Improve undergraduate nursing students' knowledge of HCAHPS through specific education.
  - The project leader implemented the HCAHPS assessment tool upon completion of the training/simulation in the Center for Simulation to assess knowledge attainment.

### **Theoretical Underpinnings**

Kurt Lewin's change theory will be used to implement this project. His model of Force Field Analysis, describes the processes needed to implement change. There must be an increase in the strength of the force for change and the strength of the opposing forces must be reduced or removed (Borkowski, 2009). Lewin's three-step process of unfreeze, change and refreeze played perfectly with implementing HCAHPS survey within the simulation activities of the undergraduate nursing program.

The unfreezing occurred with the simulation team, faculty and students. Implementing a pre-survey and post-survey did not pose difficulty because the simulation team, faculty and students have participated in these activities in the past. The implementation of the learning modules (voice over power point) was a new process, which required change theory techniques. Current driving forces to ensure unfreezing occurs included the new CMS HCAHPS regulations and hospital's new focus on the patient's experience and the students' improved employability do the high demand of nurses understanding the importance of the patient experience. This information motivated the group to want to change (unfreeze) and participate in the project.

To remove/reduce the restraining factors to change, comments and request from respected leaders in the field were used to inform the team of the new paradigm. The simulation staff and faculty was an instrumental part of the design team and assisted with the development and coordination of the program. By removing the barriers, the students, faculty and staff acceptance of the change followed.

Upon implementation of the HCAHPS Learning Module the process was evaluated and necessary modifications were instituted and new behaviors anticipated. At this point the process of refreeze was obtained.

### **Project and Evaluation Plan**

The HCAHPS Learning Module was given to the undergraduate traditional and fast track students who were enrolled in the medical/surgical course. The HCAHPS Learning Module consisted of three tools:

1. Pre/Post-module quiz (developed by the investigator)

2. Learning module (developed by the investigator)
3. HCAHPS Survey (developed by CMS & AHRQ)

The pre/post-module quiz consists of five multiple choice questions designed to assess the student's knowledge of HCAHPS. The quiz questions were approved by a team of hospital educators. The quiz took the participants less than five minutes to complete. The pre-module quiz was given to all students before the start of the simulation activities during their pre-briefing of the SHD. The post-module quiz was given to all students upon completion of the day two simulation activity. A score of 80% was considered passing. A paired t-test was conducted to evaluate the change in knowledge using pre/post module quizzes.

The learning module was a ten-minute PowerPoint presentation that was given via computer to the students on the day they were playing the patient role prior to their four hour simulation. The module included:

1. What is the HCAHPS survey
2. Why the survey was developed
3. Who completes the survey
4. When the survey is completed
5. How the survey is distributed
6. The benefits of the survey

The HCAHPS Survey is a twenty-seven item instrument and data collection methodology measuring patients' perceptions of their hospital experience that was developed and validated in 2005 (Medicare.gov, 2014). The survey took the participants less than ten minutes to complete. Each student completed this survey at the end of the simulation activity on the day they were the patient. The survey is broken down into 8 sections:

Table 1 HCAHPS Survey Sections

<ul style="list-style-type: none"><li>• Overall rating of hospital</li><li>• Your care from nurses</li><li>• Your experience in this hospital</li><li>• The hospital environment</li></ul>	<ul style="list-style-type: none"><li>• Your care from doctors</li><li>• About you</li><li>• When you left the hospital</li><li>• Understanding your care when you left the hospital</li></ul>
--	--

The multiple choice questions are Never, Sometimes, Usually, and Always. The scoring is calculated 1, 2, 3, & 4 respectively. The higher score reflects a better patient experience. The goal of the hospitals is to achieve “Always” in all the boxes. For the purpose of the study we looked at the three scores, the overall score, the “Your care from Nurse” section and “Your experience in this hospital”. These are the sections that the nurses can make the biggest impact. An independent t-test was used to compare the HCAHPS on day one with those on day two to determine if a change in practice occurred subsequent to the simulation.

The study was implemented during the Simulated Hospital Day (SHD). During the two-day four-hour simulation, nursing students (usually fifty per cohort) provided all the care and skills for the live “patient” in real time. “Patients” (twenty-five nursing students) were provided with scripts via laptop computers that adjust every thirty minutes. The “patients” scored the healthcare providers on their quality of care, answered NCLEX style questions and completed dosage calculations on an hourly basis.

The nurses (twenty-five nursing students) address patient needs, provide total care, complete assessments, pass medications, conduct patient teaching, completed necessary skills, and communicate with the patients and other team members to determine the most appropriate plan of care for each patient. Through the SHD, students

also gained experience and expertise in a wide range of socio-demographic issues. These included social, political, economic, and cultural factors that influence patient health, as well as individual risk behaviors that may impact diagnosis and treatment.

Student nurses maintained professional behavior while prioritizing multiple tasks, critically assessing their patients' status, and provided safe competent care while dealing with normal hospital distractions. The SHD is conducted each semester prior to clinical placement. This provided the faculty an opportunity to directly monitor and supervise students in a simulated hospital unit environment. Clinical faculty were able to observe what students can do safely and competently while determining areas in which they need additional training prior to working in actual hospital settings.

#### Day Before Simulation

The course managers randomly assigned the students into two groups: patients and nurses.

#### Day One

The pre-module quiz was completed by all students.

#### Patients

- received the learning module prior to the start of the SHD
- received care from the nurse over the next four hours (nurses have not yet been educated via the learning module)
- completed the HCAHPS survey on the care they received

#### Nurses

- provided holistic care for four hours without having the learning module.

## Day Two

On day two, the course managers switched the student roles and assigned the nurses to play different patients than the ones they cared for and the patients became nurses for patients other than the patients they portrayed.

### Patients

- received the learning module prior to the start of the SHD
- received care from the nurse over the next four hours (who were educated via the learning module)
- completed the HCAHPS survey on the care they received

### Nurse

- provided holistic care for four hours after viewing the learning module on day one.

The post-module quiz was completed by all students upon completion of the two day simulation activities.

Table 2 Project Flow

Day 1				Day 2			
All	Patients			Nurses			All
Pre-Quiz	Learning Module	Receive Care	HCAHPS Survey		Provide Care		Post-Quiz
	Nurses			Patients			
		Provide Care		Learning Module	Receive Care	HCAHPS Survey	

### Expected Outcomes

There should be a change in HCAHPS knowledge as measured by comparing the scores of the pre and post module quizzes for each student (using a paired t-test).



There should be a change in the nursing practice of the Day two nurses, as measured by the HCAHPS scores because they received the learning module and were introduced to the HCAHPS survey as patients on day one prior to performing nursing duties. These students were now aware of the focus of HCAHPS and attempting to incorporate these standards (or behaviors) into current practice.

Table 3 Logic Model

Input	Activities	Output	Outcomes
Lack of HCAHPS Knowledge Center for Simulation Center Staff Simulated Hospital Day	All: Complete Pre-Module Quiz Patients (A): Complete Learning Module Patients (A): Receive care by nurse Patients (A): Complete CMS HCAHPS Survey Switch roles Patients (B): Complete Learning Module Patients (B): Receive care by nurse All: Complete Post Quiz	Pre Module quiz results completed by Medical/Surgical students N = 200 # did not know about HCAHPS # of improved HCAHPS Scores on Day two of SHD Comparison of pre and post-module quizzes Comparison of Day one and Day two HCAHPS surveys	Short Term <ul style="list-style-type: none"> <li>HCAHPS knowledge improved</li> </ul> Long Term <ul style="list-style-type: none"> <li>Improved practice</li> <li>Improved desired skill set</li> <li>Improved patient outcomes</li> </ul>

### Future Outcomes

A plan will be developed to survey local hospitals to obtain feedback regarding new graduate nurse's knowledge of HCAHPS.

## **Results: HCAHPS Knowledge and “Your Care from Nurses” Surveys**

### **Overview**

Recall that the purpose of this project was to assess the effect of the HCAHPS Learning Module on undergraduate nursing students' HCAHPS knowledge during the Simulated Hospital Day. A secondary purpose was to a) examine HCAHPS knowledge scores by group type to determine if scores differed based on whether or not students were “patients” or “nurses” on the first day of SHD, and b) examine selected components of the CMS HCAHPS surveys to determine if there was a change in nursing practice among Day two nurses. Statistical analysis was completed with the Statistical Package for the Social Sciences v 22.

### **Main variables of interest**

**Independent variables.** The primary independent variables in the analyses included time period (pre-test and post-test) and group type (“Patient” on SHD Day one or “Nurse” on SHD Day one).

**Dependent variables.** The primary dependent variables in the analyses were scores on the HCAHPS knowledge survey and scores on the 4 “Your Care from Nurses” questions from the CMS HCAHPS.

**Other variables.** Descriptive statistics are also reported for passing scores on the HCAHPS knowledge survey, the change in HCAHPS score from pre-test to post-test, and the selected components of the CMS HCAHPS survey.

### **Sample characteristics**

The sample consisted of 213 undergraduate nursing students who were participating in SHD as part of their undergraduate curriculum. All students were in a Medical/Surgical rotation. Twenty percent of the participants were in the Fast Track program. In the School of Nursing, 31% of the students are male and 75% of the students are of Hispanic descent. Demographic data were not collected from participants in this project.

### **Data screening**

Prior to analyses, the variables were examined for data entry accuracy and missing values. Thirty-three surveys were not included in the analyses because they were missing an ID number, or because the ID number was not part of a pre-test/post-test pair. Two of the remaining 213 paired surveys had one missing value on the pre-test survey; a response was assigned based on the most common response to that question in the student group to which the respondent belonged. There are a variety of methods to deal with missing data; however a discussion of these is beyond the scope of this project. This approach enabled the use of all of the paired surveys, and the results of the analyses were unaffected by the estimation and inclusion of the two missing question responses. Regarding the CMS HCAHPS survey, four participants did not respond to the “rate this

hospital” and “would recommend this hospital” questions, resulting in an *n* of 209 for the analyses of those two questions.

**Analysis of HCAHPS scores: Pre-test, post-test, and change from pre-test to post-test.**

**HCAHPS individual items at pre-test.** All participants completed the 5-question HCAHPS Knowledge Survey at the beginning of SHD. As shown in Table 1, 40% chose the correct response to Q1: *What does HCAHPS stand for?*, 93% chose the correct response to Q2: *What is the benefit of improving the Patient Experience?*, 97% chose the correct response to Q3: *Who can make an impact on the Patient Experience?*, 50% chose the correct response to Q4: *Are the Patient Experience scores publicly reported?*, and 83% chose the correct response to Q5: *Does the Patient Experience score affect revenue the hospital could receive?*.

**HCAHPS total score at pre-test and post-test.** To determine a total score for HCAHPS knowledge, responses to each item were recoded so that 1 = correct response and 0 = incorrect response. Scores for each individual item were then computed into 2 new variables: “pre score” for the total of items 1 through 5 on the pre-test and “post score” for the total of items 1 through 5 on the post-test. Thus, each participant had a total score of the HCAHPS Knowledge survey at each administration that ranged from 0 (all questions answered incorrectly) to 5 (all questions answered correctly). A total score of 4 out of 5 (80% correct) was considered “passing”. As shown in Figures 1 and 2, 60% answered at least 4 items correctly at pre-test, while 95% answered at least 4 items correctly at post-test.

**Improvement from pre-test to post-test.** To determine the effect of the HCAHPS learning module on HCAHPS knowledge, a paired samples t-test was conducted to assess whether the mean scores on the HCAHPS test improved from pre-test to post-test. There was a significant difference between scores at pre-test ( $M = 3.62$ ,  $SD = .91$ ) and at post-test ( $M = 4.58$ ,  $SD = .67$ ),  $t(212) = -13.12$ ,  $p < .001$ . A paired samples t-test was used because it pairs the pre and post scores of each student and answers the question, “on average, by how much did each student improve their HCAHPS score”? On average, each student increased their score by 0.96 or 1 point, and this was a statistically significant improvement. These results were consistent with expected outcomes.

**Change from pre-test to post-test by group.** To determine the effect of being a “patient” on day one as opposed to a “nurse” on day one, a change score for each participant was computed that reflects the difference between the pre-test score and the post-test score. Sixty-five percent of students improved by at least one point while 30% had no change in score and 5% had a decrease in score. An independent samples t-test determined the mean change score from pre-test to post-test differed among students who were a “patient” on day one and a “nurse” on day two, as compared to the group who was a “nurse” first and then a “patient”. The change scores did not differ significantly between day one “patients” ( $M = 0.98$ ,  $SD = 0.95$ ) and day one “nurses” ( $M = 0.93$ ,  $SD = 1.17$ ),  $t(211) = 0.324$ ,  $p = .75$ .

**Analysis of CMS HCAHPS Survey questions.**

**HCAHPS survey individual items.** All participants completed a survey which included the 4-question “Your Care from Nurses” section and the “would you recommend” and “overall rating” questions of the HCAHPS survey, with one hundred and twelve completing it on Day one as the “patient” and 101 completing it on Day two after they had been a nurse on Day one and a patient on Day two. Table 2 shows results for the 4 “Your Care” questions, followed by the “Recommend” and “Overall rating” questions. Figure 3 shows the percentage of “patients” who responded negatively (“definitely no” or “probably no”) and positively (“definitely yes” or “probably yes”) while Figure 4 shows the percentage who rated the hospital at least “8” on a 10 pt. scale.

**HCAHPS survey differences by group.** To determine whether “Your Care” and “Recommend” survey responses differed between students who were a “nurse” on day one and a “patient” on day two, chi-square analyses of each individual question were conducted. Across all five questions, there were no statistically significant differences between groups. To determine whether the Overall Rating of Hospital survey differed by group, an independent t-test was conducted to compare the mean rating of the simulated hospital. There was no statistically significant difference between groups. These findings were contrary to the expected outcome, that the students who were “patients” on Day one and “nurses” on Day two would have figured out how they were being evaluated and provided a higher level of care than the students who were “nurses” on Day one. It may be that students are so focused on their tasks at hand that they do not make the connection between their experience as “patients” on Day one and how they will be evaluated. Future evaluations of SHD could include a qualitative component such as focus groups or semi-structured interviews to investigate this further.

## **Dissemination and Utilization of Results**

The results of this project will be presented at the National League for Nursing Education Summit in October, 2015 in Las Vegas, Nevada. A manuscript will also be submitted to a peer reviewed journal upon graduation. The data will also be shared with our community partners at our scheduled meeting at the end of the spring semester.

### **Summary**

During the simulation activities, the HCAHPS Learning Module and survey were able to make a significant impact on the undergraduate nurses' knowledge as it relates the patients' experience. Although a change in practice was not identified during the two day simulation, further studies and interviews with the community partners will be needed to determine if the impact effected patient care in the long term.

**Table 4 HCAHPS “Learning Module” Survey (n = 213)**

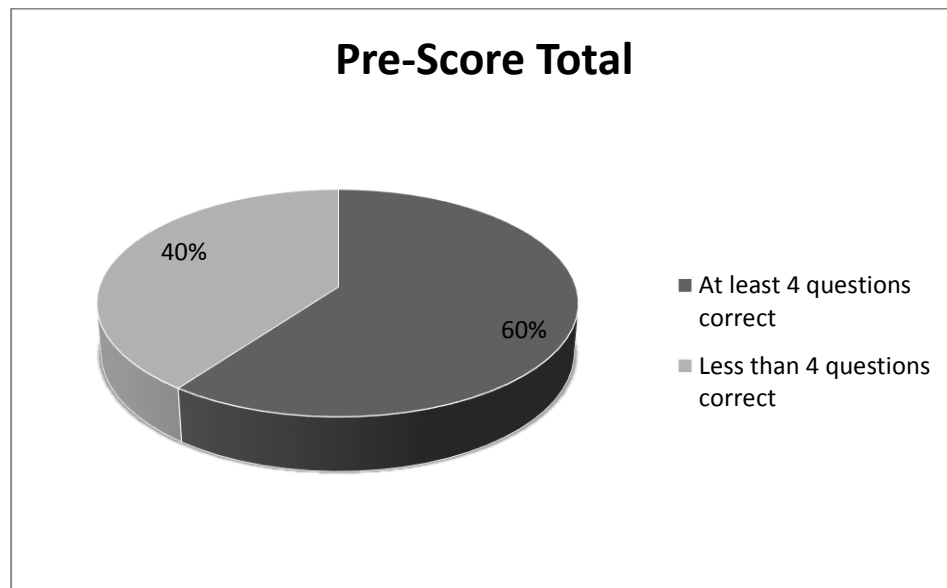
	<b>Pre-score n (%)</b>	<b>Post-score n (%)</b>
<b>Q1.</b> What does HCAHPS stand for?	85 (40%)	145 (68%)
<b>Q2.</b> What is the benefit of improving the Patient Experience?	197 (93%)	206 (97%)
<b>Q3.</b> Who can make an impact on the Patient Experience?	206 (97%)	210 (99%)
<b>Q4.</b> Are the Patient Experience scores publicly reported?	107 (50%)	205 (96%)
<b>Q5.</b> Does the Patient Experience score affect revenue the hospital could receive?	177 (83%)	210 (99%)
<b>Total score.</b> Mean group score ( <i>SD</i> ) at pre-test and post-test* (Maximum Score 5) *Paired t-test: $p < .001$	<b>Total score at pre-test</b> M ( <i>SD</i> ) 3.62 (0.91)	<b>Total score at post-test</b> M ( <i>SD</i> ) 4.58 (0.67)



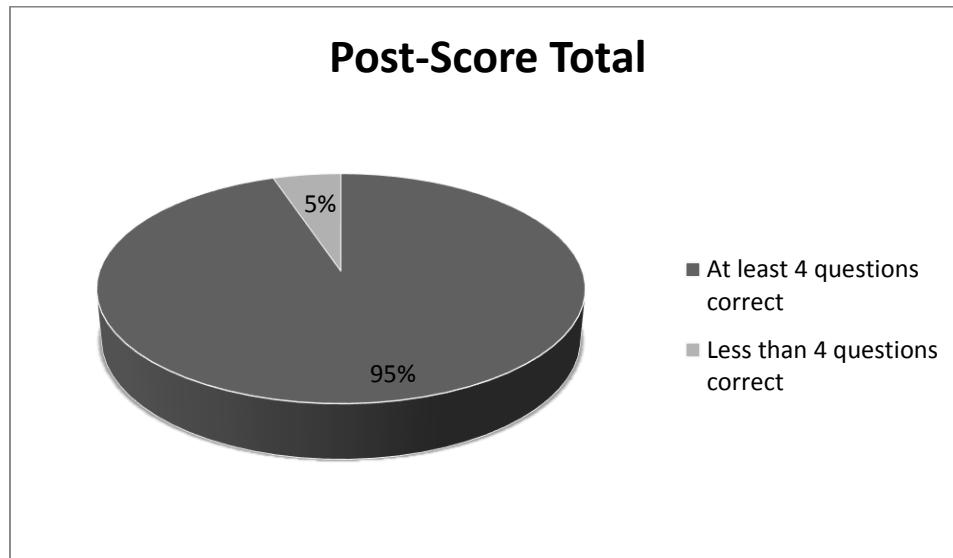
**Table 5 HCAHPS “Your Care from Nurses” Survey**

	<b>not applicable</b>	<b>never</b> <i>n (%)</i>	<b>sometimes</b> <i>n (%)</i>	<b>usually</b> <i>n (%)</i>	<b>always</b> <i>n (%)</i>
<b>Q1.</b> During this hospital stay, how often did the nurses treat you with courtesy and respect?		0	5 (2%)	17 (8%)	191 (90%)
<b>Q2.</b> During this hospital stay, how often did nurses listen carefully to you?		2 (1%)	7 (3%)	31 (15%)	173 (81%)
<b>Q3.</b> During this hospital stay, how often did nurses explain things in a way you could understand?		3 (2%)	9 (4%)	41 (19%)	160 (75%)
<b>Q4.</b> During this hospital stay, after you called the nurse, how often did you get help as soon as you wanted it?	61 (28%)	3 (2%)	3 (2%)	24 (11%)	122 (57%)
Would you recommend this hospital to friends and family?	<b>no answer</b> <i>n (%)</i>	<b>definitely no</b> <i>n (%)</i>	<b>probably no</b> <i>n (%)</i>	<b>probably yes</b> <i>n (%)</i>	<b>definitely yes</b> <i>n (%)</i>
	4 (2%)	4 (2%)	6 (3%)	72 (34%)	127 (59%)
<b>Overall mean rating (SD) of hospital (0 is the worst hospital possible; 10 is the best hospital possible)</b>	<b>no answer</b> <i>n (%)</i>	<b>Overall rating among “Patients” on Day One</b> <i>M (SD)</i>		<b>Overall rating among “Patients” on Day Two</b> <i>M (SD)</i>	
	4 (2%)	8.77 (1.37)		8.71 (1.78)	

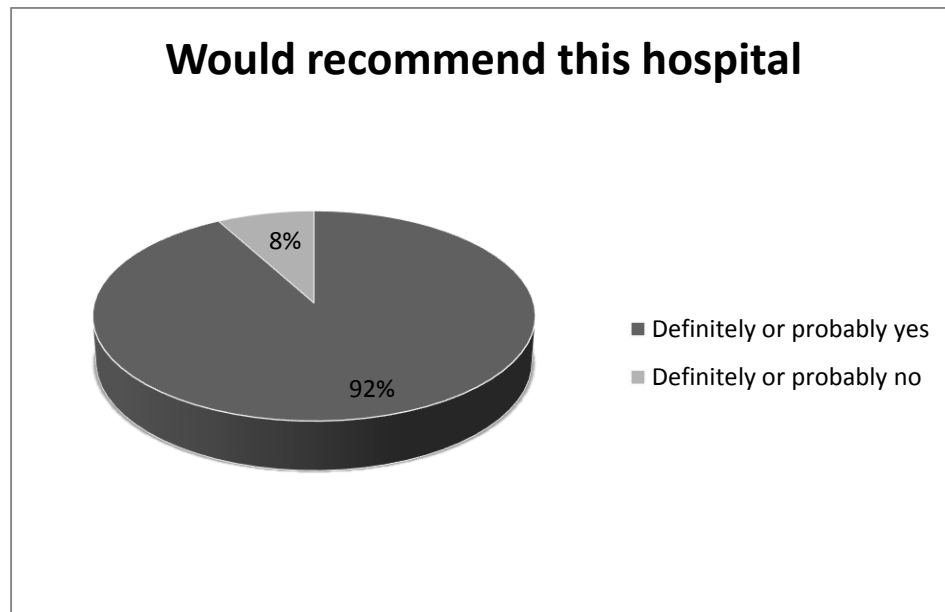
**Figure 1 Percentage of students answering correctly - pre-test**



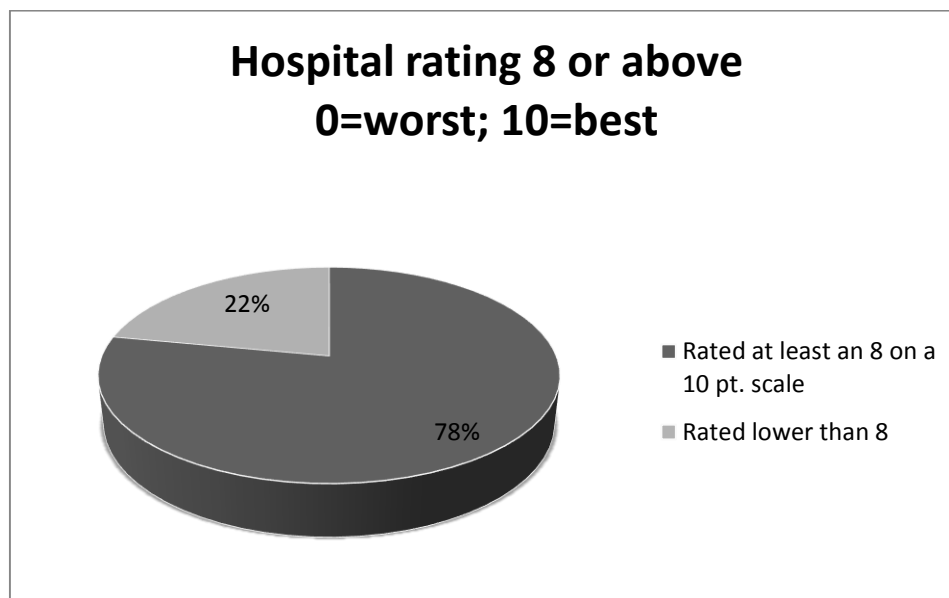
**Figure 2 Percentage of students answering correctly - post-test**



**Figure 3 Percentage of “patients” recommending hospital**



**Figure 4 Percentage of “patients” ranking hospital**



## Appendix 1

### Pre and Post HCAHPS Knowledge Survey Tool

What does HCAHPS stand for?

1. Healthcare Consumer Assessment of Hospital Personnel and Services
2. Hospital Credentialing of Acute Healthcare Providers and Systems
3. Hospital Corporation of America Healthcare Programs and Services
4. Hospital Consumer Assessment of Healthcare Providers and Systems

What is the benefit of improving the Patient Experience?

1. Improvement of hospital quality
2. Patients can make better informed decisions
3. Better patient outcomes
4. All the above
5. 1 and 2 only

Who can make an impact on the Patient Experience?

1. Doctors
2. Nurses
3. Housekeeping
4. All hospital employees
5. 1 and 2 only

Are the Patient Experience scores publicly reported?

1. Yes
2. No
3. Not sure

Does the Patient Experience score affect revenue the hospital could receive?

1. Yes
2. No
3. Not sure

## References

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Zaccagnini, M. E., & White, K. W. (2014). *The doctor of nursing practice essentials: A new model for advanced practice nursing* (2nd ed.). Burlington, MA: Jones & Bartlett Learning.



## Curriculum Vitae

**Ronnie C. Stout**

### **Education:**

DNP University of Nevada at Las Vegas, Graduation in May 2015

MBA University of Phoenix, Business Administration 1999

MSN University of Texas at El Paso, Nursing Administration 1993

BSN University of Texas at Austin, Nursing 1987

### **Relevant Experience:**

October 2008 – Present

University of Texas at El Paso

#### **Director - Center for Simulation**

- Consulting – Simulation Operations
  - Simulated Hospital Day – Live at University of Texas at Austin
  - Regional Universities – Simulated Hospital Day
  - Successful Transition and Retention Program (STaR)
  - Las Palmas/Del Sol Medical Center – Code Day
  - A-PRIME – Accelerated Professional, Relevant, Integrated Medical Education partnership
- Manage Paso Del Norte Grant 1.5 million
- Students Success from Admissions to NCLEX - Residency
- Innovations
  - Simulated Hospital Day
  - Faculty Playbook
  - Alternative Clinical Experience (ACE)
  - Mine Shaft – Skills Challenge
  - Academic Coaching
  - Critical Thinking Videos
  - Skills Videos
  - Social Media – Incorporation
  - Nurse for a Day Summer Program
  - Established Revenue Producing Center
  - Established Interprofessional Collaborative with Multiple Professions
- Presentations
  - Sigma Theta Tau International – Interprofessional Collaboration Made Easy the Simulated Hospital Day and Simulated Hospital Day
  - Transcending Borders Transcending Budgets - Indianapolis Nov 2013
  - Robert Woods Johnson Foundation: New Careers in Nursing Program
  - Simulation in Accelerated Nursing Programs

- Simulation in Nursing Education: The Answer is in Your Own Backyard – UT Austin - July 2013
- Educational Management Solutions - EMS Summit – Innovations Through Video Recordings: Efficiently bridging the gap from academics to professional practice - Calgary, Alberta, Canada - July 2013
- International Meeting on Simulation in Healthcare – Implementing Simultaneous Multi-patient Simulations - Orlando Jan 2013
- American Association of Colleges of Nursing - AACN – Changes, Challenges, & Innovations in Simulation: Finding Solutions inside your own “Box” – Nov 2012
- Mano y Corazon Binational Conference or Multicultural Health Care Solutions – Simulated Hospital Day: Building Community Capacity through Interprofessional Collaboration – Oct 2012
- Center for Simulation Conference “Get Your Hands Dirty” May 2012
- International Meeting on Simulation in Healthcare – Simulated Hospital Day “1000 Teaching Moments” Jan 2012
- International Nursing Simulation/Learning Resource Center Conference – The Business End of Simulation, 2011
- International Sun Conference on Teaching and Learning – Scenario Based Learning “Evolution of the Hospital Day”
- Regional Simulation Training 2011
- Technology Integration Program for Nursing Education and Practice – TIP-NEP at Duke University \$3000, 2010
- Manuscript
  - Lujan, J. Stout, R. Meagher, G. Ballesteros, P. Santa Cruz, M. & Estrada, I (2011). Partnering To Maximize Simulation-Based Learning: Nursing Regional Interdisciplinary Simulation Centers. Journal of Professional Nursing, Vol. 27, No 6
- Grants
  - Nursing Innovation Grant Program – Enhancing Nursing through the Alternative Clinical Experience (ACE)
  - UTEP School of Nursing Academic Tutoring Initiative - \$15,000
  - Successful Transition and Retention (STaR) Program
  - Falls – Interprofessional Sept. 2012
  - Nursing Regional Interdisciplinary Simulation Centers 2011 – \$59,000
  - HRSA – Testing and Critical Care Simulation Rooms 2011 – Approved not Funded
- Research
  - The effects of the HCAHPS Learning Module on Undergraduate Nursing Students During The Simulated Hospital Day
  - Integration of Simulation Hospital Day experience within an undergraduate nursing baccalaureate curriculum: real-time, simulated patient care environment that supports auditory, visual and psychomotor learning with the focus of enhancing the student’s clinical practice and professional behaviors.

- Committees:
  - Faculty Athletic Committee
  - Region 19 – Texas School Nurses Organization
  - Community Partners
  - Course Managers
  - Undergraduate Curriculum
  - Society for Simulation in Healthcare – Hospital Based Simulation Programs Special Interest Group
  - Society for Simulation in Healthcare – Nursing Section Workgroup – Bridging the Gap
  - Graduate School
  - Centennial Committee
  - University Tutoring Project
  - Regional Liaison – Texas Team - 2011- Funded 92,000
- Faculty Training:
  - Skills Videos
  - Simulated Hospital Day Playbook
  - Managing 5 patients
  - Simulation
- Community Outreach:
  - Established Center for Simulation’s first regional conference “Get Your Hands Dirty”
  - Established Biannual Community Partner Exchange with seven hospitals
  - Hands on Tour - High School, Middle School, Elementary

#### Visiting Lecture

University of Texas at Austin – 2014

Robert Wood Johnson

Scholar Mentor - 2013

June 2007 – 2013

University of Texas at El Paso

#### **Graduate Program Instructor**

- Healthcare Financial Management (5)
- Management Roles and Operations

November 2004 - 2008

Solution Tyme – Rehabilitation Staffing Company

## **Owner**

- Business Development – started staffing company from the ground up to meet the increasing demand of therapy needs throughout the local area. Started 4 clinics, to include purchasing all equipment, teaching material, supplies and negotiating leasing agreements.
- Marketing - Established contracts with 12 local providers, ranging from acute care to State facilities.
- Recruiting – currently employ full time and PRN therapists.
- Customer Service
- Payroll
- A/P and A/R
- Human Resource – duties from background checks to acquiring health benefits: to include health insurance, disability and retirement plan.
- Manage the day to day staffing requirements and operations.

October 2005 – February 2007

Del Norte Home Care – Home Health Agency

### **Administrator / Assistant Director of Nursing**

- Business Operations – Maintain and review policies and procedures, ensure clinical operations run according to agency standards
- Quality Improvement – monitor and implement processes to improve priority areas.
- Assess and treat patients when necessary
- Customer Service with patients, referral sources and families
- Recruiting – staff as necessary

July 1993 – October 2004

Del Sol Medical – El Paso TX

### **Director of Rehab Services**

- Multi-site management – up to 70 employees – Managed two acute care rehabilitation departments, three outpatient facilities, and two wellness centers.
- Multi-million dollar budget responsibilities
- Program Development – to include occupational wellness programs, cardiac rehab, aquatics, kids camp, injury prevention program.
- Marketing – to local industry, physicians, insurance carriers and patients
- Recruiting – to maintain a fully staffed Physical, Occupational, Speech Therapy and Wellness Staff
- Customer Service – significant focus placed in this area

June 1992 - July 1993

Rio Vista Rehabilitation Work Hardening Program

**Case Manager**

- Managed all injured workers care throughout the Work Hardening Program
- 15 – 30 workers at a time

June 1991 – June 1992

Comprehensive Rehab Associates

**Case Manager**

- Medically managed injured workers from a variety of industry
- Multiple diagnosis and multiple industry

October 1987 – June 1991

United States Army

**1<sup>st</sup> Lieutenant**

- Critical Care Nurse
  - Preceptor
  - 4 Month ICU certification
  - ACLS certification
- Medical/Surgical Nurse
  - Preceptor

**Licensure:**

Texas Board of Nurse Examiners

Registered Nurse

**Volunteering/Community Service:**

2013 - Present

Region 19 School Nurses Simulation Conference Planning Committee

Member UTEP MSN Orals Committee

2007 – Present

Western Technical College

Physical Therapy Advisory Board

July 2007 – Present

West Texas Medical Reserve Corps

Volunteer

August 2005 – February 2007

Therapeutic Horsemanship of El Paso

Board Member

January 2001 - December 2004

Socorro Independent School District

Safety Committee Member