Creating Healthy Work Environments 2019

Impact of Technology on Nurse-Patient Interactions: A Skill-Based Method for Improvement

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A challenge in nursing practice today includes finding a balance between the demands of technology use and the art of nursing which is caring and the human connection. Since implementation of the electronic health record (EHR), nurses and other clinicians are required to be technically proficient with computer skills for required documentation. Effective use of computer skills while providing high quality patient care is a missing element in that proficiency. Interviews with nurse administrators of a 346-bed community hospital in northeast Alabama revealed concerns over low patient satisfaction in the 'communication with nurses' section of the Research and Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey over the past year. Upon review of data where there was a 28% survey response rate, it was determined that the facility's top box score was 76% while scores for regional and national facilities were 81% and 80%, respectively. Patient comments revealed negative perceptions of nurses as being too busy, being short-staffed, not caring, and paying more attention to computers. Research shows that effective communication skills are endorsed as an essential component of high quality health care. Barriers to communication between clinicians and patients, such as technology use at the bedside, can have a major impact on patient health outcomes and patient satisfaction. The increased prevalence of technology in practice environments is actually increasing the risk of nurses and other clinicians working with more focus on the computer than on the patient.

The purpose of this project was development and presentation of a skill-based approach called Caring with Tech that will assist nurses to optimize interactions with patients during use of bedside technology. The project's main parts were adapted from a skill-based approach developed to encourage physicians to remain patient-centered during exam room use of the electronic health record (EHR), as well as relational elements of the Fundamentals of Caring Framework used in strategies to develop therapeutic relationships with patients in clinical practice. Jean Watson's Theory of Human Caring supported this project since it advocates that a caring consciousness is the core of true nursing. Caring and the human connection must not be lost when using technology at the bedside. After consultation with hospital nurse administrators, the project was developed as an awareness campaign called Caring with Tech. It was intended to increase nurses' awareness of how their interactions with patients can be impacted during use of workstations on wheels (WOWs) at the bedside.

Caring with Tech was presented to a target group of registered nurses and unlicensed multi-skilled technicians employed on the 30-bed orthopedic/medical unit that operates within the community hospital. A pre-test was administered prior to the session, and a post-test was administered after each session. A total of seven 1-hour educational sessions were held with 28 registered nurses and 5 unlicensed multi-skill technicians in attendance. Participants were 85% female, 15% male, mean age of 34.8 years with 79% being 25 years of age or older, and the number of years in the profession ranged from 3 months to 40 years. Each participant was awarded a laminated card of the Caring with Tech logo to attach to his or her hospital ID badge upon completion of the session. Caring with Tech informational cards were also placed as reminders on the WOWs used by nurses on the unit upon completion of all sessions.

A pre- and post-test design was utilized at the beginning and end of each session that revealed a pre-test score mean of 88.48 and a post-test score mean of 96.66. Using SPSS, a paired t-test statistical analysis determined that the p value was <.05 therefore showing statistical significance of learning between pre-test and post-test administration. This finding provides evidence that the educational content of Caring with Tech increased knowledge and awareness of the impact that technology can have on patient interactions, as well as methods for improvement. It was also determined via demographic questions on the pre-test that only 30% of participants were extremely comfortable using computers, and 61% of

participants felt that taking time for empathy is extremely important during patient care. The hospital adopted Caring with Tech to use in orientation of new nursing staff to coincide with computer training sessions.

A skill-based approach, Caring with Tech, provided to nurses and other clinicians can assist in optimizing interactions with patients while using technology at the bedside. Learning about and being mindful of how caring behaviors can impact patient perceptions of nurses using bedside technology, patient health outcomes, and patient satisfaction with their hospital experience can enable nurses to balance technology with the art of nursing. A long-term goal considered during the development of Caring with Tech was improvement of facility HCAHPS scores in the area of communication with nurses. With increased knowledge and awareness of this clinical problem being evidenced in the project results data, Caring with Tech may prove to be a beneficial program to implement in health care facilities striving to improve patient satisfaction with the hospital experience.

Title:

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Caring behaviors of nurses, Nurse-patient interactions and Technology at the bedside

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Abstract Summary:

Use of technology at the bedside is having an impact on nurse-patient interactions and patient satisfaction. A skill-based approach developed with effective communication as a driving force, may be a practical tool for health care facilities to implement to improve patient satisfaction and optimize patient outcomes.

Content Outline:

Impact of Technology on Nurse-Patient Interactions:

A Skill-Based Method for Improvement

I. Local problem

A. Finding balance between the demands of technology and caring

B. Local community hospital

1. HCAHPS scores below desired level in ‘Communication with Nurses’

2. Patient reports of perceptions of nurses using computers at the bedside as inattentive,

distracted, and uncaring

C. Effective communication skills

1. Essential in high quality patient care

2. Technology at the bedside can be a barrier

II. Project purpose

A. Caring with Tech: A skill-based method

1. To optimize nurse-patient interactions while technology is used at the bedside

III. Methodology

A. One hour educational sessions

B. Target staff included registered nurses and multi-skilled technicians on an orthopedic unit

C. Pretest/Posttest design for statistical analysis

D. Caring with Tech logo badge to be awarded to attendees

IV. Results

A. Seven one-hour sessions held with 33 nurses and 5 techs in attendance

B. Pre- and post-test analysis statistically significant for learning

B. Staff awareness and knowledge of problem increased

C. Caring with Tech provided skill-based approach to assist staff to optimize nurse-patient

interactions

D. Hospital adopted portions of program for use during computer training classes

V. Implications for practice

A. Increased knowledge and mindfulness of impact that technology has on nurse-patient

interactions

B. Implementation of Caring with Tech's skill-based methods

1. Potential to improve patient satisfaction and optimize patient outcomes

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Professional Experience: 1983 - 2000: Registered nurse at various acute care facilities over the southeast. Critical care experience. Patient education/Staff development experience. 2003 - current: Employed at local community college to teach health education and exercise classes. In 2007, became a nurse educator in the associate degree RN program. Currently continue teach in the classroom, lab, simulation lab, and clinical facility. Nurse faculty clinical focus is general medical-surgical adult health nursing with all levels of students, beginners to seniors.
Author Summary: Dr. Mullinax has been an RN since 1983 when she started her career with critical care experiences. After years of clinical nursing practice, she became a nurse educator in 2007 and has taught all levels of students from fundamentals to leadership/management. She completed the DNP in Administration/Educator Focus degree in August, 2018 at Samford University. She has a special interest in the impact that technology use at the bedside is having on nurse-patient interactions.