

Bedside Brain Breaks:

How Stepping Back into Education Can Step Healthcare Forward

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Abstract

Historically nurses have been drivers of innovation, from Florence Nightingale's sanitation movement in the 1850's to Anita Dorr creation of the code cart. This article explores the ingenuity of nursing and emphasizes the importance of education and professional development of bedside nurses. Amid the demands of increasing patient acuity and healthcare challenges, equipping bedside nurses with specialized education can yield improved patient outcomes alongside bedside nurse retention. The pioneering Nursing Research Fellowship in Robotics and Innovation at a local Delaware hospital is leading the way for nurses to engage in research, acquire new skills and become voices of change on their units. This fellowship demonstrates how a structured investment in nurses fosters curiosity and innovation, by offering nurses the tools, time, and support to ask "why not" and unlock solutions to today's healthcare challenges.

Did you know a nurse initially developed what we know as the code cart in the mid-1960s? Anita Door was the innovative nurse who changed the way we approach and bring care to critically ill patients.¹ Another nurse innovator was Sister Jean Ward, who recognized that jaundiced neonates improved at a faster rate when they were placed in direct sunlight.² This innovation went on to become bilirubin lights that are still used in neonatal intensive care units to this day. These two nurses--along with countless others--are examples of how nursing ingenuity has the potential to profoundly change healthcare. These nurses recognized there could be a better way to take care of their patients.

This innovative spirit in nursing dates back to Florence Nightingale in 1854 who focused on cleaner environments, fresh fruit, and clean water that decreased mortality rates from 60% to 2.2% in her assigned military hospital.³ Clean spaces and fresh food seem like an obvious beneficial change to us today but back then when sanitation was not a standard of care, these changes directed by a nurse were groundbreaking. Today with increasing workforce challenges, could nurses have the time and space to be just as innovative with similar impacts on the future of our healthcare?

Patients today are sicker and require more sophisticated care than ever before. Experienced nurses are the backbone to provide this care, yet many may leave the bedside to pursue other opportunities. How can we keep them at the bedside to continue providing excellent care and to tap into their expertise to solve our challenging problems? One tried and true solution has been to invest in bedside nursing through professional development and education. Investing in nurses not only increases retentions rates, it reinvests into the organization and community, but most importantly has a positive impact on patient care.⁴ Nurses are one of patients' strongest advocates, often supporting patients and their families through the worst times in their lives. From medication administration to discharge planning, nurses are there through it all and impact every part of the patient care process. Yet with the increasing complexities of the healthcare system, nurses are in need of unique formalized training that can keep pace with the rapidly

changing healthcare landscape that is also increasingly integrating technology to support and augment the healthcare workforce.

A local Delaware hospital did just that with nurses leading the research and implementation of delivery robots. What is more futuristic than a delivery robot cruising through hospital halls to offload specific tasks humans normally perform? This delivery robot is designed to be a collaborative robot or also known as a cobot. It is programmed to safely assist humans in shared and collective workspaces.⁵ For the past three years, these cobots have delivered thousands of medications, supplies, and equipment requests to most areas of the hospital. Nurses at different levels, led by a PhD trained nurse, conducted multiple research studies to better understand how a delivery cobot may be changing the work environment. Who is better equipped to investigate the practice environment than nurses themselves?

An extension of this research morphed into a formalized training program titled, “Nursing Research Fellowship in Robotics and Innovation.” Four bedside nurses from different practice areas were selected after a rigorous interview process to become the inaugural nurse fellow cohort. This ‘one of a kind, first of its kind’ fellowship provided a unique opportunity to invest in bedside nurses through rigorous education, inter-professional connections, and resources that will equip them with new skillsets, potentially leading to implementing research and evidence-based practice projects in their practice areas. Because the curriculum is anchored in researching robotics in the hospital setting, the fellows are exposed to studying this type of cutting-edge technology, which is not typically led by nurses.

Over the course of eight months, the fellows dedicated two hours a week to didactic presentations that introduced them to research designs, theoretical frameworks, protocol development, health equity, and grant funding. Special guest lectures about health inequity and assistive robotics in healthcare helped expose nurse fellows to areas of healthcare not often talked about at the bedside. Another 2-4 hours a week were dedicated to applying their research knowledge directly to an active robotics study as co-investigators. This “brain break” from a typical patient care assignment allowed the fellows to gain a new perspective on how they can personally be innovative on their units (e.g., mentoring colleagues in the research process, advocating for implementing evidence-based practices, and determining areas of improvement in their specific patient population).

Gaining diverse skills from this unique fellowship program each week, these fellows became more empowered to think differently and to recognize their greater contribution within and beyond the bedside. These nurse fellows are now equipped with tools and professional connections to tackle a problem and start working on a solution that can impact the whole hospital system. For instance, the fellows began projects aimed at addressing opportunities for improvement in patient care on their respective units. Without this fellowship, the fellows would not have had the resources or support to start asking the “why not?” questions and advocating for change. These fundamental changes to their perspectives through formalized education have the potential to increase nurses’ professional commitment and decrease their intent to leave.⁴

The “why not” mindset is critical to be a catalyst for change not only healthcare but any workforce position. What would patient care look like if nurses like Anita Dorr and Sister Jean Ward left the bedside prematurely and took their genius ideas with them? What if Florence was not a pioneer for cleaner practice environments in hospitals back when that critical factor was

overlooked? She is dubbed the mother of nursing² and most likely she would be quite proud of the ingenuity of nurses who came after her.

Investing in professional bedside nurses' development is one way to ensure that healthcare as a whole moves forward into the future. Nurses developing innovative ideas is nothing new, but acquiring many seats at the table to move ideas forward is a work in progress. Anita Dorr recognized a more efficient way to immediately respond to coding patients and then, went on to co-found the Emergency Nurses Association.¹ Imagine the pioneering insights could be made to today's high-tech healthcare if nurses like Anita and Jean could have been a part of research and innovation early on in their careers through professional development offered to bedside nurses. Florence, Anita, and Jean set a magnificent table for nurses and now, it is time to add more seats.

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