

Innovations in the lens of system thinking, research and nursing informatics: The editor's vantage point

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Innovations are essential, particularly with technology having massive effects on our roles and processes as nurses. Innovations entail change and can be unsettling for most. For innovations to successfully transpire, there must be buy-in from all stakeholders and end-users. As nurses, we can and should drive our own future. We have the knowledge, capability and skills to identify system issues and gaps and effectively do something about them.

I have always motivated students and colleagues to identify and develop innovations, whether these are for practice, education, research or administration. Being constantly immersed in various systems as nurses, we witness egregious circumstances that can be mitigated to improve nursing and patient care outcomes.

The American Association of Colleges of Nursing (2021, p. 44) lists system-based practice as one of the core competencies that all nurses must have. It is “foundational to the delivery of quality care and incorporates key concepts of organizational structure ... knowledge of financial and payment models relative to reimbursement and healthcare costs ... (as well as) the impact of local, regional, national, and global structures, systems, and regulations on individuals and diverse populations ...” Patients, families, communities and populations are client-based systems, and one’s knowledge and application of system theory (such as Betty Neumann’s theory) can likewise be integrated when considering innovations.

Wolf et al. (2021, p. 206) described three components of innovation – idea, invention and diffusion. As one sees gaps in our roles and processes, an idea comes to mind, whether it is a clear or serendipitous thought about an actual or potential problem or the realization that there is something better than the status quo. This idea is then transformed into an invention; something that is novel and can remarkably improve the existing pattern or situation. With its stark novelty and significance, it implodes by way of diffusion either like wildfire or at its own pace.

Vanaki & Rafiei (2020) demonstrated the application of system theory in the prevention of pressure injuries among stroke patients by addressing various and typical stressors that affect the five components of the client-based system, i.e., physical, psychological, sociocultural, developmental, and spiritual. When critically examining the processes that we integrate in preventing pressure injury, we will have a more comprehensive analysis of care gaps when we deconstruct each of the five subsystems of the patient’s structure. It will be easy to find at least one idea from these components when an invention can be thought of and can readily be adapted. One example that I quickly identified is the effect of stroke on a patient’s mental state. We know that depression can readily set in among stroke patients. An idea that I thought of is the early initiation of psychotherapeutic preventive measures for both patient and families. This will enhance early awareness and

understanding of depressive symptoms once evident in order for targeted interventions to be implemented. I am sure you all can think of other ideas that you can turn into innovations that can eventually change care protocol and policy.

When mentoring or guiding nurses to think of innovations, several concepts and frameworks are useful. Some of these include: fundamentals in nursing; processes used in physical or community assessments; nursing interventions, pharmacogenetics or pharmacotherapeutics; principles of medication administration; or, basic nutrition and physiotherapy. Some or all can be replete of gaps or snafus. One needs to examine closely our many roles and processes using these concepts and frameworks in order to see where actual or potential problems can occur. We are also adept in the use of research in order to ascertain solutions to problems we encounter in nursing. This is where research becomes even more relevant when thinking of innovations. As we apply the many concepts, frameworks and theories in our practice of nursing, creative ideas come to our consciousness when confronted with anomalous, outdated or questionable practices. This is when we question the status quo, come up with ideas that turn into inventions, and easily adapted into practice after being validated using evidence-based research.

The same may be said of nursing informatics and many of its applications, e.g., the use of healthcare technologies, data analytics and project management. The compelling influence of nursing informatics in all facets of our lives is as palpable in nursing. While most of our processes have been automated, there are still many more that can be mitigated using nursing informatics concepts, tools and applications. Even our roles as nurses can be retooled in order to enhance our performance, effectiveness and sustainability. We see nurses who use their knowledge of data mining, analytics, technologies, and project management into innovative roles as independent practitioners, consultants, life coaches, health and wellness experts, data specialists, design thinkers, and many more. We are no longer confined to the traditional roles that we have been accustomed and trained to do. Our practice can be broad and extending, depending on how far our own imagination will take us. With innovations that we bring to life, we direct our own course.

We live at a time when the world is changing. Nurses are known to be innovators. This is the perfect opportunity for nurses to bring more meaningful, relevant and professionally satisfying roles and processes to our practice. What an exciting time to be actively part of the progressive changes occurring in nursing! Using our understanding of system theory, research and nursing informatics, our possibilities are endless. Would you care to join the movement towards innovative nursing?

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