

Technological Innovation For Improving nursing and Midwifery Service. September 1st, 2018

Dr Fathimath Shifaza PhD, Msc, RN, RM
College of Nursing and Health Sciences
Flinders University, South Australia
Founder EBP Health Champions Maldives
Maldives



What is Innovation?

- *Innovation is anything that creates new resources, processes, or values, or improves a company's existing resources, processes or values".*
- (Christiansen et al)
- *Innovation is a process that brings creativity to measurable outcomes, actions, products, or processes*
- (Senge, 2001)

Excellence in practice and innovation

- requires “leadership teams [that] must take the responsibility for training and development, recruitment, and reward systems that elevate the innovation”.
- (Boyd 2011)



Why is innovation needed?

- Reduce significantly the risk of disease,
- Disease prevention
- Improve life expectancy
- Enhance the quality of life.
- Improve patient safety and reduce adverse events
- Provide a framework for evidence based practice
- Improve accountability, legibility and avoid litigation



Innovative strategies

The use of innovative strategies and evaluation of the use of innovative strategies are among the key factors that directly affect the quality of the service.





Technological Innovations In 1800-1900s



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WELLNESS APPS



Modern technology: Enhancing care



Emerging technologies

- Genetics and Genomics
- Less invasive and more precise tools for diagnosis and treatment
- 3-D Printings
- Robotics
- Biometrics
- Hospital information system (cro.BIS)





Technology in nursing and Midwifery education

- Sim mum
- Intermediate-fidelity simulation
- PC –based simulations
- Virtual patient simulations
- Human patient simulation
- Integrative systems
- Debriefing

Simulation

- Has a vital educational link between didactic content and sound clinical experience
- Provision of a wider variety of experiences than the learner might otherwise have had
- An environment that allows for errors and professional growth without risking patient safety.





Types

- Low Fidelity
- Medium Fidelity
- High Fidelity



Uses of Simulation in Nursing Education and Practice

- Undergraduate Programs
- Continuing and In-Service Education
- Interdisciplinary Team Training
- Competency Assessment

Undergraduate Programs

- Move from traditional teaching to student centered
- Simulation, using integrated simulators can be incorporated into all phases of the curriculum to allow students increased clinical experience in a safe environment.
- Guarantees experience for every students
- Reduces training variability and increase standardization
- A web-based teaching platform
- More flexible educational system



Continuing and In-Service Education

- Rehearsing and gaining experience through the use of simulation can help the nurse gain confidence and knowledge about how to act in an emergency



Interdisciplinary Team Training:

- Encouraging healthcare professionals to work in teams promotes the interdisciplinary skills needed for practice





Competency Assessment:

Simulation has become a frequent method for evaluating student's psychomotor skill competency



Limitations of Simulation

- Not real
- Limited realistic human interaction
- Students may not take it seriously
- No/ incomplete physiological symptoms

Impacting Factors

Liberating nurses and midwives to embrace innovation in nursing practice requires:

- an organizational culture
- working environment founded on ensuring a sound vision,
- strategy, goals
- insightfulness of people to generate and
- evaluate ideas.



Positive Implications

- Increases additional direct care time
- Reduces Medication administration errors
- Communicational error
- Reduce stressors resulting from inefficient work patterns
- Can reduce physical exertion of nurses and increase the productivity.

Negative implications

- Over dependence on to technology & reduction in productivity while learning the technology
- Experience strong emotional responses as they struggle to adapt new technology and disruptions in their workflow
- Incorrect documentation
- Privacy breaches, unauthorised access
- Depersonalise the care experience
- Erode critical thinking skills to effective nursing practice

Patient experiences & Technology

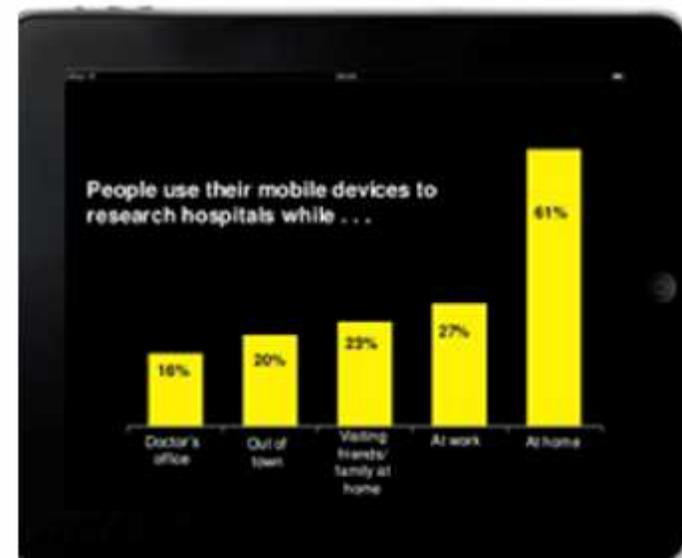
- Health care is no longer limited to the doctors office.
- Patients are more informed and connected than ever before.
- Healthcare providers are required to have new avenues for communication
- Patients are able to shop hospitals- Being visible in search is extremely important
- Enhance patient education- standard video based teaching
- Patients may use mobile diagnostics in lieu of doctors, risking an inaccurate diagnosis

Search Has Been Game Changing

Google

I'm looking for a doctor

Google Search On the Go



Challenges

- Difficult to automate the nurse's complex work flow
- Lack of basic computer skills for first time users
- Increased effort, time, and initial cost

Summary

- With the acceleration of healthcare technology nurses are required to learn new technology with maintaining the patient centred care.
- Technology solutions can eliminate repetitive tasks
- The role of bedside nurse is changing with the age of technology.

[The future version](#)



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Thank you



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