

USING SYSTEMS THINKING TO INTEGRATE NURSING RESEARCH INTO CLINICAL PRACTICE

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NURSING PRACTICE

- Typically informed by:
 - Tradition
 - Personal choice
 - Previous instruction
 - Procedural guidelines—may be outdated

EVIDENCE-BASED PRACTICE

- Key to quality patient outcomes
- Derived from rigorous research methods
- Fosters safe, effective and efficient healthcare
- Use to guide clinical decisions in clinical, hospital, and community settings
- Nurses should be leaders in implementing EBP as they frontline healthcare workers

DEFINING QUALITY HEALTHCARE

*”Degree to which health services for **individuals** and **populations** increase the likelihood of desired health outcomes and are consistent with current professional knowledge” –IOM 1990, 2013, para 3*

THREE ASPECTS OF QUALITY

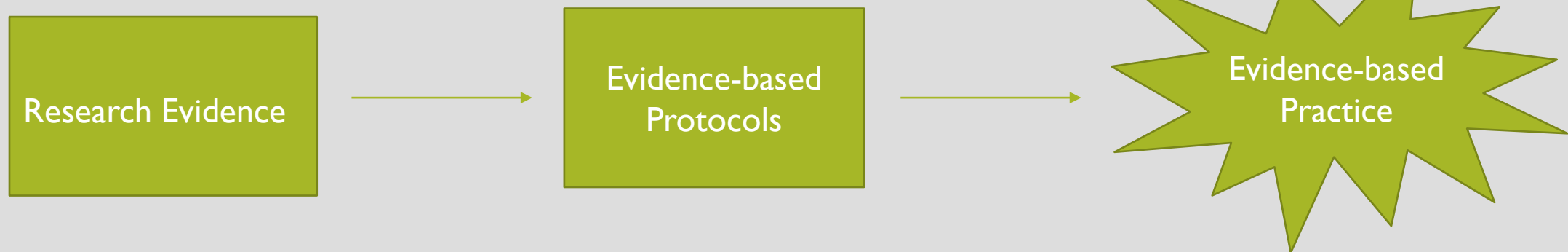
- Services (interventions)
- Targeted health outcomes
- Consistency with current knowledge (research evidence)
- Goal: Align services with current knowledge, standardize practice to eliminate inconsistency

ESTABLISHING EVIDENCE BASED NURSING PRACTICE

- Transforming knowledge of research evidence into practice in the form of clinical practice guidelines
 - Individual
 - Microsystem
 - System leaders
 - Policies

EVIDENCE-BASED PRACTICE (EBP)

- The use of research data to guide clinical practice
- Rather than a single research study, EBP relies on data from multiple studies
- Research is used to develop evidence-based protocols
- Results in highest quality care for patients



THE EBP PROCESS

- Identify a problem
- Critique the evidence
- Design and implement evidence-based recommendations
- Evaluate the change

EVIDENCE BASED PRACTICE

- Continuous problem-solving approach
- Integrates provider expertise with patient values and preferences
- Must take place within a culture and environment that fosters its success
- Context of caring and supportive ecosystem

SYSTEMS THINKING

”A way of thinking about and a language for describing and understanding the forces and interrelationships that shape the behavior of systems.”—Senge, 2006, p. 69

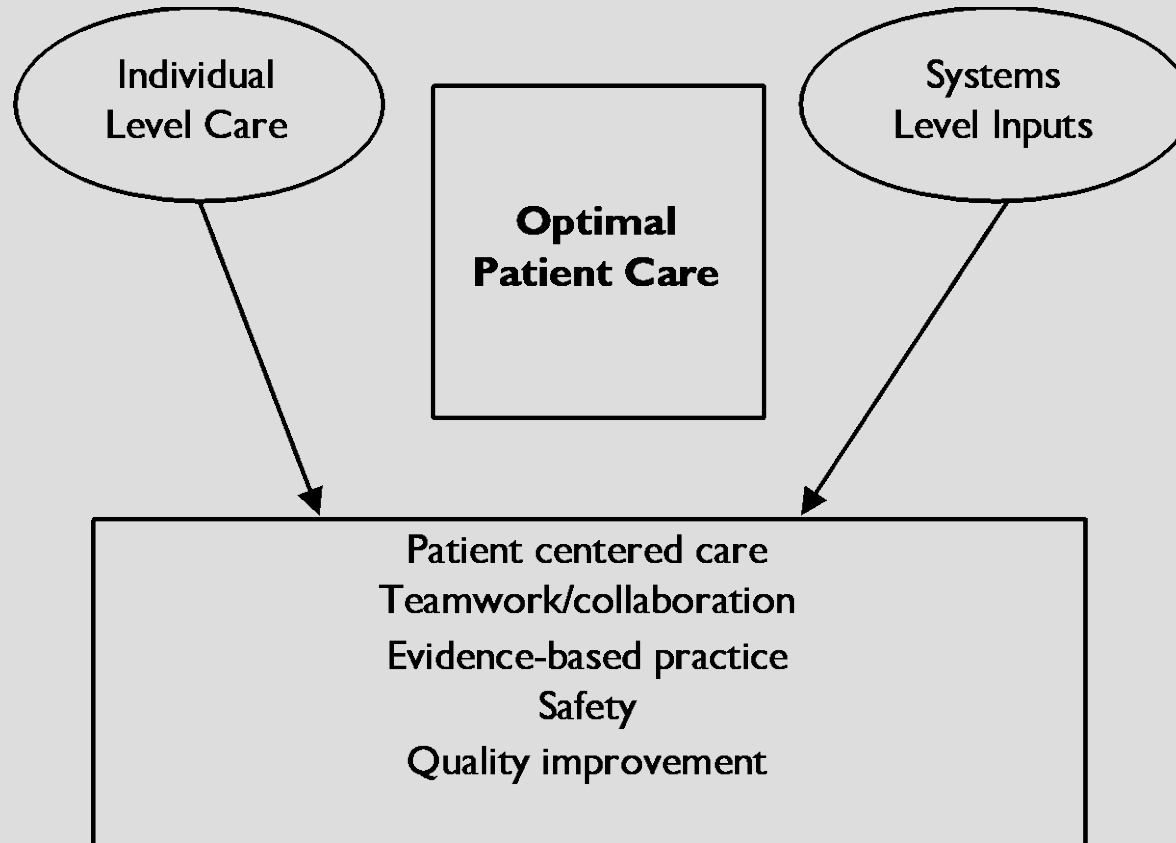
SYSTEMS THINKING

- Links personal behavior to the environmental context
- Continuum from individual level to broader internal and external environments
- Critical approach to patient safety and quality outcomes

HEALTHCARE OUTCOMES

- Involve interactions at the individual level that are influenced by broad systems level influences
- Represent complex, multilevel and multifunctional organizations of healthcare systems
- Nursing practice traditionally focused on individual level with less attention to systems level

SYSTEMS THINKING AND QUALITY HEALTH OUTCOMES



MOVING TO SYSTEMS LEVEL TO IMPROVE QUALITY OUTCOMES

Personal effort/ individual care-----Systems thinking/systems care

Turn patient

Post note above bed
to remind others to
turn patient

Ask other nurses
about ways to prevent
ulcers

Compare unit ulcer
rates with benchmarks

IMPROVING PATIENT SAFETY TO IMPROVE PATIENT OUTCOMES

- High incidence of patient harm related to safety violations in low-income countries
- Harm to patients compounded by staff shortages, lack of resources, and under-developed professional education programs
- Systems thinking can address patient safety and therefore improve patient outcomes

PATIENT SAFETY

- Responsibility of an entire system vs. individuals
- Outcomes not the result of a single incident, rather the result of collection action of multiple microsystems
- May be related to:
 - clinical practices
 - equipment design
 - maintenance and supply of equipment
 - administrative procedures (e.g. staffing)

PATIENT SAFETY AND QUALITY OUTCOME RESPONSIBILITY

- Outcomes need to be thought of in the larger context of the entire healthcare system
- Considered the result of multiple inputs
- Shift responsibility to the system rather than the individual
- Reduces the concept of blame
- Contradicts the idea that patient death and suffering are unavoidable and/or normal

BARRIERS TO PATIENT SAFETY

- Lack of clinical and administrative protocols—and lack of implementation
- Lack of knowledge
- Lack of equipment
- Staffing shortages
- Poorly designed microsystems—e.g. shift reports and communication structures

COMMUNICATION

- Critical component of creating a culture of safety and producing high quality patient outcomes
- Includes consideration of:
 - Teamwork—interdisciplinary and intradisciplinary communication
 - Hierarchical dynamics—response to communication and outcomes of communication
 - Accountability vs. blame

CONCLUSIONS

- Nurses can play a critical role in producing quality health outcomes
- Nurses are often most proximal influence on patient safety
- Quality health outcomes depend on EBP and must take place within a culture of patient safety

CASE STUDY

1. Was this a preventable outcome? Why or why not?
2. What are the patient level interventions that could have or should have been implemented?
3. What are the nurse and provider level interventions that could have or should have been implemented?
4. What are the systems level interventions that should have been implemented?
5. How can evidence-based practice help?
6. From your own experience and practice settings, does this sound familiar? How would the staff at your workplace react to this situation?
7. What are potential steps for action? How can we promote positive outcomes for our patients?