Quality and Safety Education for Nurses: Preparing Future Nurses to Improve Quality and safety of Healthcare Systems

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The Quality and Safety Education for Nurses (QSEN) Competencies: What do they mean for Education and Practice

1. Transforming the mindset for quality and safety: Examining the evidence
2. The QSEN Competencies: What do they mean for education and practice?
3. Innovations for Integrating the QSEN Competencies
Reflection: Acting Purposefully

- What do you want from the time we are here together?

- What did you give up to be here?

- What are you willing to invest to achieve your purpose?
Transforming the mindset for quality and safety: Examining the evidence

- What do you know?
Pop Quiz!
1. According to the IOM how many deaths occur each year due to medical errors?

A. 44,000 and 98,000
B. We do not know.
C. 1 million
D. 25,000 – 35,000
2. According to the IOM, what are the leading causes of unexpected deaths in health care settings?

A. Cardiac arrest
B. Stroke
C. Emboli
D. Medical errors
3. What percentage of patients experience a serious medical error while hospitalized?

A. 3%
B. 7%
C. 1%
D. 13%
4. Which accounts for the largest number of patient deaths?

A. Breast cancer
B. AIDS
C. Adverse and sentinel events
D. Motor vehicle accidents
5. The root cause of 65% of sentinel events is:

A. Communication
B. Lack of training
C. Provider intention
D. Lack of caring
6. What is the economic cost of medical error annually?

A. $8 billion to 29 billion
B. $1,000,000 - $20,000,000
C. $1 billion to 10 billion
D. $500,000,000 to $800,000,000
7. What is the cost in human terms?

A. Pain and suffering
B. Moral distress and erosion of trust
C. Disengagement
D. All of the above
Evidence: IOM Quality Chasm Series

- To Err Is Human: Building a Safer Health System (2000) (see IOM.gov)
- Crossing the Quality Chasm: A New Health System for the 21st Century (2001)
- Health Professions Education: A Bridge to Quality 2003
- Identifying and Preventing Medication Errors (2006)
There are some patients whom we cannot help. There are none whom we cannot harm.  A. L. Bloomfield
Medication Safety

Identifying and Preventing Medication Errors (IOM, Cronenwett et al 2006)

- On average in-patients may experience at least one medication error per day

- At least 1.5 million preventable adverse drug events occur each year

Impact on Trust
Changing our Mental Models

How have we changed auto safety?
What are examples of changing views, practices and policies related to safety all around us that are built on quality improvement data?
Who partnered to achieve the goals? How do we adopt this mind set in health care?
Quality is not a choice; it is a commitment, safety is an imperative

- Response ignited by staggering reports from IOM
- Consumer demand
- Regulatory and other agencies
- Evidenced based standards of care: role of evidence in quality
What are your definitions?

- Quality
- Safety
New Views: Operational Definitions

- **Quality**: uses data to monitor outcomes of care processes to measure the reality with the ideal or other benchmark.

- **Safety science**: applies system processes to minimize risk of harm to patients and providers, and applies human factors to examine and improve individual performance.
What is the **mindset** required for quality and safety?

What are moral, ethical, and economic considerations?

What are work force issues?
Mindset: Will, Idea, Execution

- Nurses have the capacity to lead integration of quality and safety in health care when they have the tools.

- Latent working conditions and poor communication are key contributors to error

- **Will: Values**
- **Idea: QSEN**
- **Execution: Changing Education and Practice**
Will: Values for Quality, Safety

- New views of quality and safety science are reshaping health care.

- Quality impacts work force

- Having the resources to do our work well increases satisfaction and joy in work and contributes to a positive work environment.
Health care lags other industries

- Late 1990’s: U.S. hospitals began adopting quality improvement and safety science methods. What is in nursing curricula?

- Nurses lack the tools to improve systems

- Poor communication contributes to 70% of health care errors, yet nurses and physicians have few educational experiences together.
High performance industries

- Complex, intermittently, intensely interactive
- Perform exacting tasks under time pressure
- Focus: Where is the next error likely to occur?
Moral imperative

- Health care is value based; We pledge, first, do no harm.

- Quality is an essential value.

- We take pride in doing the right thing, but quality is more than will; it is a mindset of inquiry and using tools to improve systems in which we work.
Impact on the work force

Working in systems with poor quality lowers satisfaction

Goes against our internal compass
Leads to dissatisfaction and disengagement
Moral and economic consequences....

Health professionals have the motivation and ability to improve systems if they....

......have the necessary education and training and ...

......work in organizations where quality improvement is integrated as part of daily work.
Considering context

- Quality and safety are core values in nursing.
- New views of quality and safety science are reshaping health care.
- Doing work well contributes to a positive work environment and increases joy in work.
We can’t hope to make lasting change in the ability of health care systems to improve without changes in the way we develop future health professionals. Those changes require faculty and schools to change.

Paul Batalden
Dartmouth College
QSEN Advisory Board
Idea: A new view of health care:

All health professionals should be educated to deliver patient-centered care as members of interdisciplinary teams, emphasizing evidence-based practice, quality improvement, [safety], and informatics.

Committee on Health Professions Education
Institute of Medicine (2003)
6 competencies to transform systems are not separate, linear concepts but are broad and overlapping.
Growing the change required

- New vocabulary
- Keeping pace with redesigned systems
- Moving from the individual perspective to include a system perspective
What are embedded assumptions that drive nursing curriculum, student learning experiences, and practice & academic partnerships?

What are safety issues with students?
**Execution:**
Moving to competency based education

- How do we change traditional pedagogies and curricula?
- How do we engage students?
- How do we engage Clinicians?
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QSEN: Quality and Safety Education for Nurses

Leadership team at UNC-CH with National Expert Panel and Advisory Board

Long-Range Goal
To reshape nursing professional identity formation to include commitment to the development and assessment of quality and safety competencies
Quality and Safety Education for Nurses (QSEN: www.qsen.org)

University of North Carolina at Chapel Hill Team:
Principal Investigator: Linda Cronenwett, PhD, RN, FAAN
Co-Investigator: Gwen Sherwood, PhD, RN, FAAN

- Funded by the Robert Wood Johnson Foundation
  - 2005-2007 Phase I Pre-licensure Education
  - 2007-2009 Phase II Graduate Education and Pilot School Collaborative
  - 2009-2011 Phase III Faculty Development to Achieve Curriculum Integration (UNC-CH and AACN)
  - 2011-2012 Phase IV
Welcome

Welcome to QSEN, a comprehensive resource for quality and safety education for nurses! Faculty members worldwide are working to help new health professionals gain the knowledge, skills, and attitudes to continuously improve the health care systems in which they work. This website is a place to learn and share ideas about educational strategies that promote quality and safety competency development in nursing.

Faculty Development

Faculty resources on this website include annotated bibliographies and teaching strategies submitted by faculty like you who are attempting to help students develop the knowledge, skills and attitudes essential to the development of quality and safety competencies. Faculty from 15 nursing schools participated in the QSEN Learning Collaborative in Phase II. You can view a list of our pilot schools here.

We invite you to use this website to share with other nursing educators your ideas for improving quality and safety education for nurses.
To upload a teaching strategy, please click here.

...To transform nurse identity to include quality and safety as a core part of what they do…

www.qsen.org
Quality and Safety Education for Nurses (QSEN)

- [www.qsen.org](http://www.qsen.org) (funded by RWJF)

- **Phase I**
  - Expert panel and Advisory Board defined the IOM competencies through objectives for the knowledge, skills and attitudes required (KSAs)
  
  - Adopted by nursing education credentialing and licensing agencies (AACN Essentials; NLN Competencies; NCSBN Transition to Practice; Swedish Nursing Council)
QSEN 2005-2011: all about change

- **Phase II**
  - Completed 15 school pilot collaborative
  - Delphi study
  - Graduating student survey of competencies
  - Established (40) QSEN facilitator panel

- **Phase III & IV**
  - Faculty development workshops
  - Planned three QSEN National Forums
Disseminate: QSEN Publications

- 4 Special topic issues:
  - Phase I *Nursing Outlook*  May-June 2007
  - Quality in Nursing *Urologic Nursing* Dec 2008
  - Applying QSEN *Journal of Nursing Education* Dec. 2009

Book chapters, additions to textbooks
Book due 2012 (Sherwood & Barnsteiner)
Phase III: UNC-CH and AACN

- Faculty Development to Achieve Curriculum Integration
  - 11 regional workshops for train the trainer through AACN
  - National forum 2010, 2011

- 40 expert Facilitators
- Continue VAQS Scholars
- Website Learning Resources: Lewis Blackman Videos, Learning Modules, Teaching strategies
- Textbook integration, publications
Delphi Study for placement of competencies in the curriculum

(N=18 QSEN experts)

- Implement as curricular threads
- Early curriculum: individual patient
- Later: teams and systems
- Advanced courses: complex concepts
  - Teamwork and collaboration
  - Evidence-based practice
  - Quality improvement
  - Informatics
    - Barton et al, Nov-Dec 2009 *Nursing Outlook*
Goal: Graduates with a new mindset

A Quality and Safety Culture: A new way of thinking

- Engages in their work with the patient as the focus
- Encourages inquiry
- Applies evidence based standards and interventions
- Investigates outcomes and critical incidents from a system perspective
- Continually seek to improve care
From the Pilot Learning Collaborative: Integration using a variety of pedagogies will yield more effective change.

Thread through nursing and interprofessional courses: class, technology, simulation/skills lab, clinical learning.

- New Questions
- Narrative pedagogies
- Unfolding case studies
- Web Modules
- PBL
- Papers
- Readings
- Clinical Partners
- Reflective Practice
Gaps: Practice and education
Silo education

How do we integrate student learning experiences into clinical settings and with other disciplines?
Changing our mindset for new approaches

- Complexity of care means no one discipline can provide care, need to clarify and understand roles

- Patients and families partnering in care

- New RN graduates need different skills for emerging system redesigns
  - Transition to Practice models
Theory Bursts!
Patient Centered Care:

<table>
<thead>
<tr>
<th>Define:</th>
<th>Expectation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recognize the patient or designee as the source of control and full partner in providing compassionate and coordinated care based on respect for patient's preferences, values, and needs.</td>
<td>Applies knowledge of patient values and preferences in caring for patient and with others on the care team.</td>
</tr>
<tr>
<td>Includes patient and family as allies in safety.</td>
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</tr>
</tbody>
</table>
Small groups: Identify 3 words

- When you think of patient centered care, what three words first come to your mind?

- How do these words compare with the KSAs in the competency definition?
### Teamwork and collaboration:

<table>
<thead>
<tr>
<th>Define:</th>
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<tbody>
<tr>
<td>Function effectively in nursing and interprofessional teams, fostering open communication, mutual respect, and shared decision-making to achieve quality patient care</td>
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</table>

<table>
<thead>
<tr>
<th>Expectation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Use personal strengths to foster effective team functioning (EQ)</td>
</tr>
<tr>
<td>- Integrate quality and safety science in communicating across diverse team members</td>
</tr>
<tr>
<td>- Include patient and family as members of the health care team</td>
</tr>
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</table>
Teamwork and collaboration

- Inadequate communication and poor working relationships are the most frequent root cause of safety events and near misses.

- Poor communication skills undermine teamwork and collaboration so that errors are more likely to occur.

- Team briefings before care and de-briefings after interventions contribute to quality and patient-centered care.
Teamwork and collaboration

- Standardized communication provides a structure to help organize pertinent information.

- The purpose is to insure care coordination and safe handling between providers and to insure communication occurs across hierarchy.

- Providers may develop a checklist to insure that critical information is conveyed from one care provider to another during patient hand-offs or transfers.
How are you teaching/implementing

- Standardized communication in critical team communications:
  - during shift hand-offs,
  - patient transfers from one unit or facility to another.
  - interprofessional rounds that focus on patients’ daily care goals,
  - nurse – physician communications to improve informed physician decision-making
  - SBAR, CUS, etc.
## Evidence-based practice:

<table>
<thead>
<tr>
<th>Define:</th>
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<tbody>
<tr>
<td></td>
<td>- Applies technology to search evidence for best care approaches and clarify decisions.</td>
</tr>
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</table>
Base care standards and protocols on scientific evidence

- Apply levels of evidence to care plan
- Assess actual patient care against the standard of care and known best practice
- Formulate a clinical question from a case study for students to write an evidenced based standard.
Evidence-based practice

- Safe, high quality health care requires knowledge workers who ask questions about practice and constantly search for new evidence.

- Students need to see examples of evidence-based practice in the unit and learn how patient preferences are accommodated within the standards of best practice.

- Students and faculty can help search for new sources of evidence related to practice issues in the unit.
Example: wound care

- Trace the history of how we treat wounds
- What are examples you have used in your career for wound care?
- Why did each change occur?
Quality improvement:

Define
Use data to monitor the outcomes of care processes and use improvement methods to design and test changes to continuously improve the quality and safety of health care systems

Expectation:

- Quality improvement integrated into nursing role and identity
- Uses quality tools, evidence, patient preferences, and benchmark data to assess current practice and design continuous quality improvements
Do you know?

- Rapid Cycle Change
- Benchmarks
- Human factors
- Root cause analysis
- Trending
- Variance reports
- PDSA
Quality improvement

- Providers must apply specific steps to interpret integrative reviews to identify the evidence to support specific care protocols for data-based decision making.

- Educational experiences should inspire students and new graduates to work from a “spirit of inquiry” where actions are constantly questioned and examined in light of new evidence.
## Wound Care

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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</thead>
<tbody>
<tr>
<td>What data are collected in your institution on wound care management?</td>
<td>How do you collect the data?</td>
</tr>
<tr>
<td>Who is involved?</td>
<td>How is data analyzed?</td>
</tr>
<tr>
<td></td>
<td>Who sees it?</td>
</tr>
<tr>
<td></td>
<td>What happens with it?</td>
</tr>
<tr>
<td>Safety:</td>
<td>Expectation:</td>
</tr>
<tr>
<td>--------</td>
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</tr>
<tr>
<td>Define:</td>
<td>Awareness of actions that may put patients at risk and possibility of error</td>
</tr>
<tr>
<td>Minimize risk of harm to patients and providers through both system effectiveness and individual performance</td>
<td>Knows system alerts for safety</td>
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<tr>
<td></td>
<td>Seeks solutions to work arounds and evaluates short cuts</td>
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<td></td>
<td>Includes patient and family as safety allies</td>
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</tbody>
</table>
New views of Safety Science

- Error identification and reporting: beyond “5 rights” of medication administration, assessing risks for falls, and other environmental monitoring.

- Just culture: report/learn from adverse events/near misses through Root-cause analyses to improve the system.

- Apply human factors

- Model team behaviors that welcome ‘clarifying’ questions when any team member sees the possibility of an error
## Human factors in quality and safety

<table>
<thead>
<tr>
<th>Workload fluctuations</th>
<th>Interruptions</th>
<th>Excessive professional courtesy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fatigue</td>
<td>Multi-tasking</td>
<td>Halo effect</td>
</tr>
<tr>
<td>Failure to follow up</td>
<td>Poor handoffs</td>
<td>Passenger syndrome</td>
</tr>
<tr>
<td>Ineffective communication</td>
<td>Not following protocol</td>
<td>Hidden agenda</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Complacency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>High-risk phase</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Task (target) fixation</td>
</tr>
</tbody>
</table>
What are safety issues in wound care?
**Informatics:**

**Define:**
Use information and technology to communicate, manage knowledge, mitigate error, and support decision making

**Expectation:**
Use electronic record systems
Search for and evaluate information sources
Navigate computer decision supports
Evaluate technologies for their potential to cause or mitigate error.
Help design and evaluate relevant products
How does informatics impact each competency?

- Patient centered care
- Teamwork and collaboration
- Evidence base practice
- Quality improvement
- Safety
- Informatics
9 universal patient safety strategies:

http://www.jointcommissioninternational.org/24946/

1. Confusing drug names that sound/look alike
2. Confirming patient identification
3. Performing correct procedure, correct site
4. Control of concentrated drug solutions
5. Assuring medication accuracy during transitions
Checklist of safety strategies to avoid mistakes (WHO)

6. Avoid catheter and tubing mis-connections
7. Single use injection devices
8. Improved hand hygiene
9. Communication during patient hand-overs

How are we working on these?
QSEN competencies in Practice

- Patient centered care: concern for patient and family and their preferences
- Teamwork and collaboration: interdisciplinary communication, hand-offs, safety huddles
- Evidence based practice: strength of evidence guiding care, choice of interventions
- Quality Improvement: compare care given benchmarks and design improvements
- Safety: risk awareness, check lists, error recognition and reporting
- Informatics: EHR, search for evidence, decision support, system alerts
What questions have emerged as you’ve helped students develop quality and safety competencies?

3-4 minutes talking with others near you

Prepare to contribute questions/insights/concerns
What are we willing to invest to make the changes required to improve quality and safety?