

Innovative Evidence-Based Strategies for BSN Education



Old Dominion University

- East Coast of USA in Norfolk, Virginia
- Doctoral research university
- 274 rigorous academic programs
- >24,500 students
- \$2.6 billion annual contribution to VA economy



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ODU School of Nursing

- Est. 1967
- Largest of 5 professional schools in College of Health Sciences
- BSN Program
 - pre-licensure accelerated track
 - post-licensure RN-BSN track
- Graduate Program
 - Certificate, MSN, DNP



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Undergraduate Educational Strategies that Promote Handoff Effectiveness and Patient Safety: Connecting the Dots between the Senders and Receivers

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Objectives

- Discuss patient safety issues in relationship to change-of-shift handoff.
- Describe evidence- based teaching strategies that promote nursing students' effective handoff delivery and reception.
- Discuss evaluative processes to assess students' handoff delivery and reception.



Handoff Communication

- Purpose of patient handoff
- Communication breakdowns during handoff
 - Consequences
- The call for handoff education



Handoff Education

- Not typically taught in undergraduate nursing programs
- Handoff Instruction Literature (or lack thereof)
- Handoff teaching and learning strategies at ODU SON
 - classroom, assessment lab, simulation, clinical



Evidenced Based Learning Strategies

- Flipped classroom
 - Case studies
 - Role play
 - Peer evaluation
- Health Assessment Lab
 - SBAR is the ticket out of lab
- Simulation
- Clinical

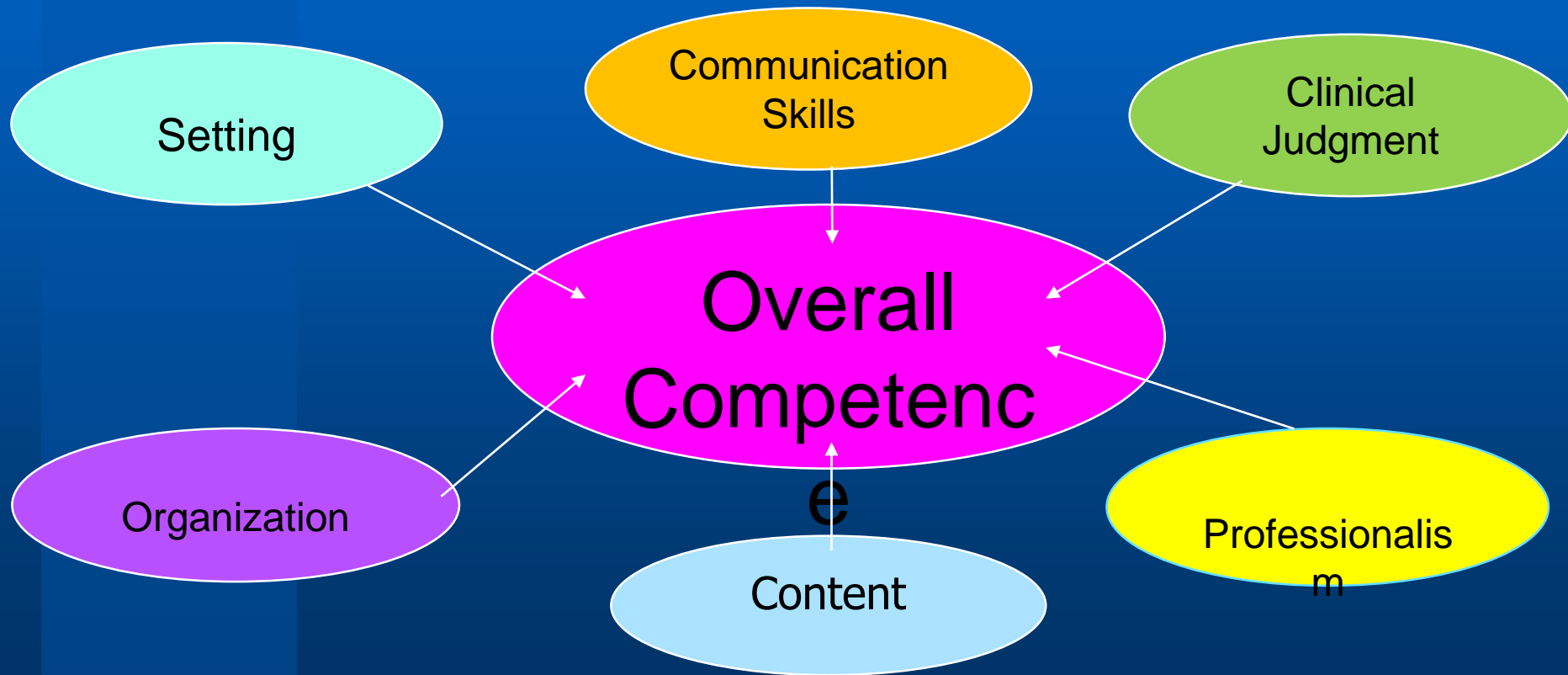


Student Handoff Evaluation Procedure

- **Assessment and intervention simulation**
 - normal and abnormal data
 - SBAR template
- **Students provide handoffs to non-faculty current medical/surgical RN's**
- **Handoff evaluation using the Handoff CEX**



Handoff CEX Evaluation Survey Tool (see handout)



Variable	n	Mean	Median	SD	Minimum	Maximum	Skewness	Kurtosis
Setting	107	9.00	9.00	.483	9	9	-10.344	107.000
Organization	107	6.53	7.00	1.895	2	9	-.429	-.732
Communication Skills	107	5.74	6.00	1.870	2	9	.116	-.808
Content	107	5.85	6.00	1.937	2	9	.184	-1.045
Clinical Judgment	107	6.05	6.00	2.021	2	9	-.009	-1.148
Professionalism	107	6.79	7.00	1.572	4	9	-.245	-.890
Overall Competence	107	6.14	6.00	1.707	3	9	-.188	-.993

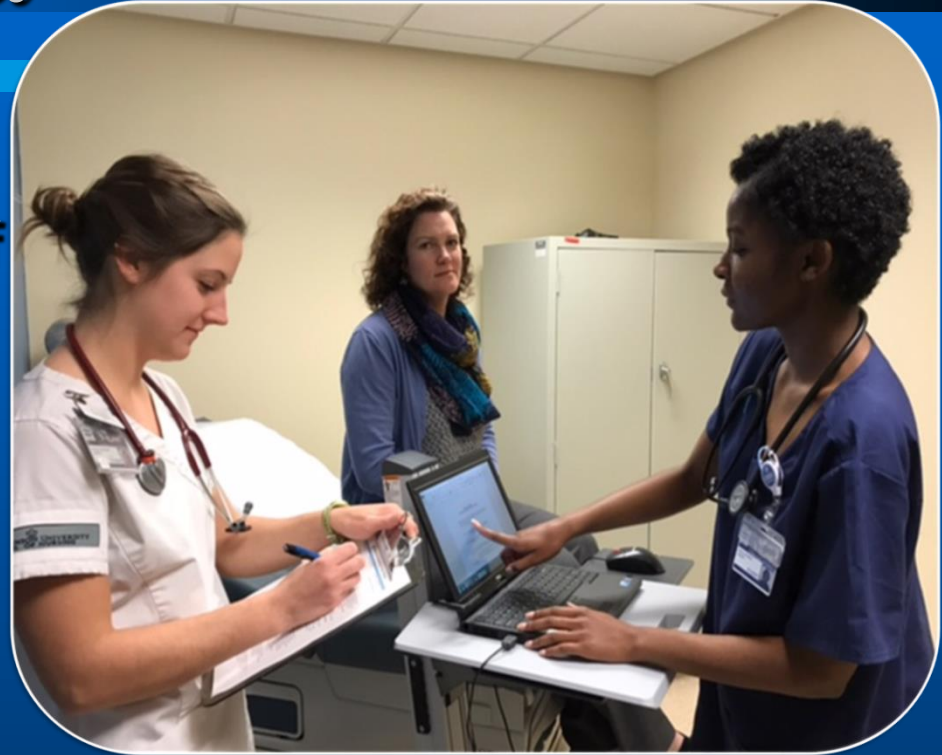
Transmission of Accurate Handoff Information is Not Enough!

- Fundamentals Lab Practicum
 - Avatars
- Adult health I
 - Classroom
 - Clinical
 - Simulation



High-fidelity Simulation as an Educational Strategy to Teach Handoff

- **Control Group**
 - received patient handoff via traditional written case study
- **Experimental Group**
 - (increased fidelity) received handoff from a nurse, dressed in clinical attire, using an EMR at the patient's bedside

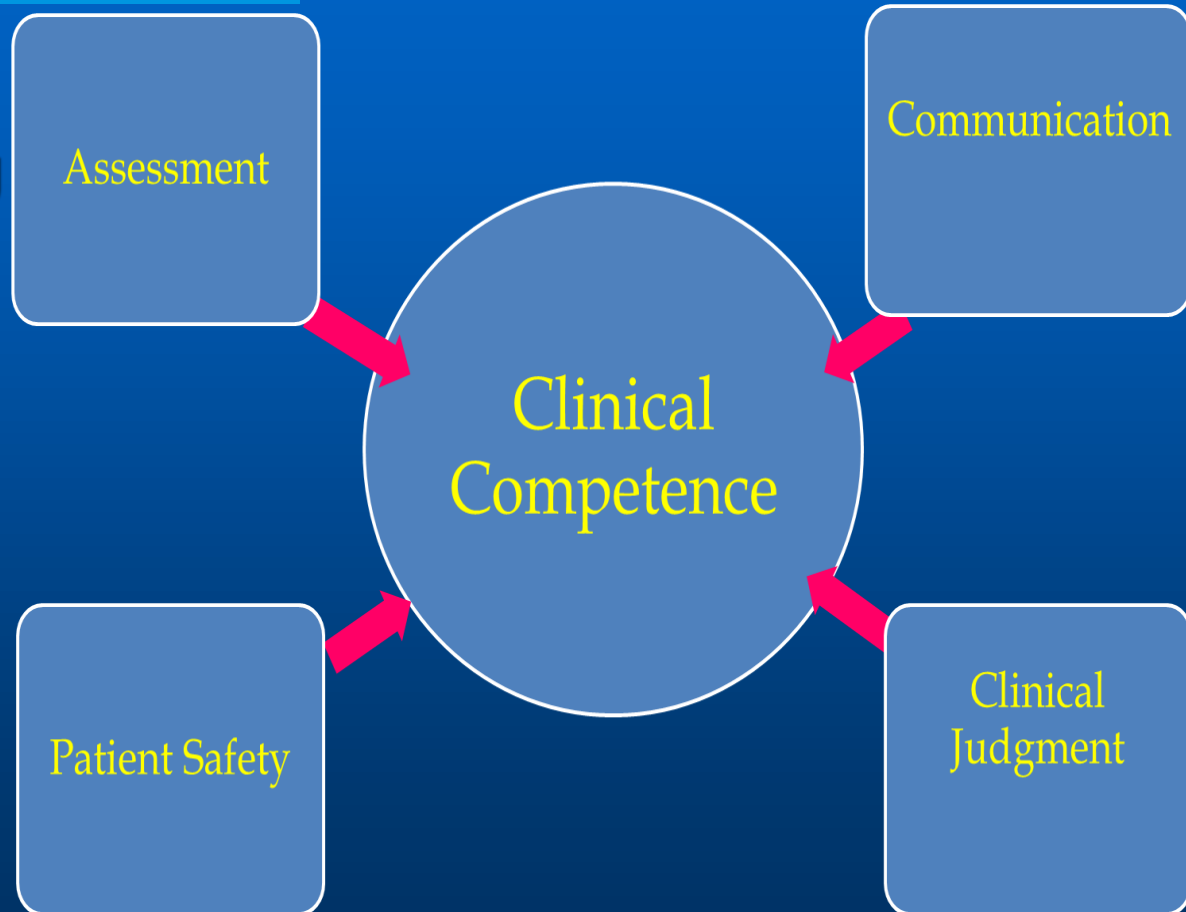


Following handoff students in both groups proceeded to care for the standardized patient.



Evaluation of Clinical Competence after **Receiving** Handoff

Clinical competence
was measured using
the **Crieghton
Competency
Evaluation
Instrument (C-CEI®)**.
(see handout)



Pilot Study Results

Table: Descriptive Statistics for Clinical Judgment & Clinical Competence based on Creighton Competency Evaluation Instrument

IV	Group	(Total n=40) n	Minimum	Maximum	Mean	*%	SD
Clinical Judgment	Control	20	1	7	5.75	82.1	1.585
Clinical Judgment	Experimental	20	0	7	5.27	75.4	2.325
Clinical Competence (total score)	Control	20	8	20	15.825	79.1	3.624
Clinical Competence (total score)	Experimental	20	2	20	14.950	74.8	5.539

Notes: IV= Independent Variable, n = number of participants, SD = Standard Deviation
*% score for category (out of 100%)



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Discussion

- It is imperative that educators provide opportunities for students to practice patient handoff to help bridge the practice-education gap to improve patient safety.
- The question is how to best do this in fast-paced, technologically advanced, high-stakes healthcare environments.



Discussion

- Evidence supports simulation as an educational strategy and today's learner embraces active learning strategies such as HFS, which allows educators to teach with a sense of salience.
- Evaluation of handoff learning strategies discloses key information and identifies information that needs to be reviewed throughout the curriculum.



Using Service Learning to Enhance Cognitive Development of Nursing Research for Complex Social Issues

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Learning Objectives

At the end of this presentation, participants will be able to:

Define service learning and its process.

Identify a common goal of service learning for the BSN student.

Deliberate probable social issues and their project potential for the enhancement of understanding and application to nursing research.

Examine ways to evaluate cognitive development.



Service Learning

- Definition: Structured educational experience that links classroom knowledge to community engagement.
- At its best: Accommodates student growth via self-examination.
- At its worst: May stymie association with others.



Overall Objective: Lives of Others

- To serve as an initiation into the tangible world of the lives of others, i.e., those lives that are rarely encountered by the student nurse in his/her typical setting in order to provoke self-reflection, compassion, selflessness, social awareness and, above all, cognitive development and insight.



Succinct Substance of Service Learning

- Common goal: That the combination of the two, classroom knowledge and community engagement, adds value to each and transforms both.
- Through: First hand exposure to social injustices and cultural barriers that exist in local communities.



Structure of Service Learning in Nursing Education

- 1. Incorporated into BSN programs for >20 years with no standardization.
- 2. Student involvement ranges from rigorous community participation with close integration into academic study to 1 week intensives unrelated to classroom concepts.



ODU BSN Service Learning

- Concept Implementation:

- A. One year: two semester community health course

- B. Student groups assigned to existing community organizations that range from:

- a. Faith based
 - b. Drug Court
 - c. Assisted Living
 - d. Pregnant Teens, breastfeeding, prenatal education.



Group Organization

- Each student group:
 - A. Has a faculty resource.
 - B. Assesses their aggregate
 - C. Determines indicated diagnoses.
 - D. Plans and implements their choices.



Group and Community Organization

- This process introduces students into communal regions of which they personally have little knowledge, i.e., addicts in drug court and pregnant teens.



Group Analysis and Outcomes

- The group: Loving Steps, state funded.
- The Background:
 - Measure of a community's needs can be determined through infant mortality rate.
 - It reflects quality of prenatal and birth care available to both mother and children.
 - It is a critical indicator of the overall health and welfare of a nation.



Loving Steps

- Virginia's infant mortality rate: 6.8/1000
- Our community's rate: 9.1/1000
 - (VDH.gov (2015)).
- Introducing students to this culture and population served to:
 - Challenge their assumptions
 - Bring stereotypical preconceptions to the surface



Revelations

- Working with this group:
 - Presented alternative viewpoints of issues that conflicted with ‘expert’ knowledge.
 - Provided a stimulus to justify and compare observations with the literature.
 - Instilled a need to be politically and socially active.
 - Inspired ideas for their own research.



Key to Understanding

- 1. Ongoing oral logs as opposed to written.
- 2. Discussion of individual strengths and weaknesses (both student and aggregate).
- 3. Resolution of current crises (both student and aggregate).
- 4. Recognition of need for changes (both student and aggregate.)



Student Activity Development

- 1. Teaching prenatal classes at local clinic and city high schools.
- 2. Recognition of the need to change educational content.
- 3. Development of teen father educational and support groups.
- 4. Organization of community health fairs and safe sleep initiatives.

Relevance and Implications

- The students demonstrated a willingness to change and adjust together through our informal meetings, which led to a positive attitude toward civic engagement and a better understanding of complex social issues.



Cognitive Development Evaluation

- These students achieved the ability to analyze the complexity of a problem and devise solutions rather than focus on individual deficiencies, which resulted in cognitive development.



One Final Realization

- Its best: Self-examination to find those qualities within that enable a successful transition for the common good of a community.
- Its worst: Stymie association with others, be they student peers or members of a diverse culture within the community.



Final Realization

- To grasp the understanding that this is a group effort on both sides. We are there to bring an awareness to others of what they possess within themselves. There is no them or us—we are facilitators not rescuers. That recognition creates an acceptance on all sides.



Condition Mapping and Situational Awareness

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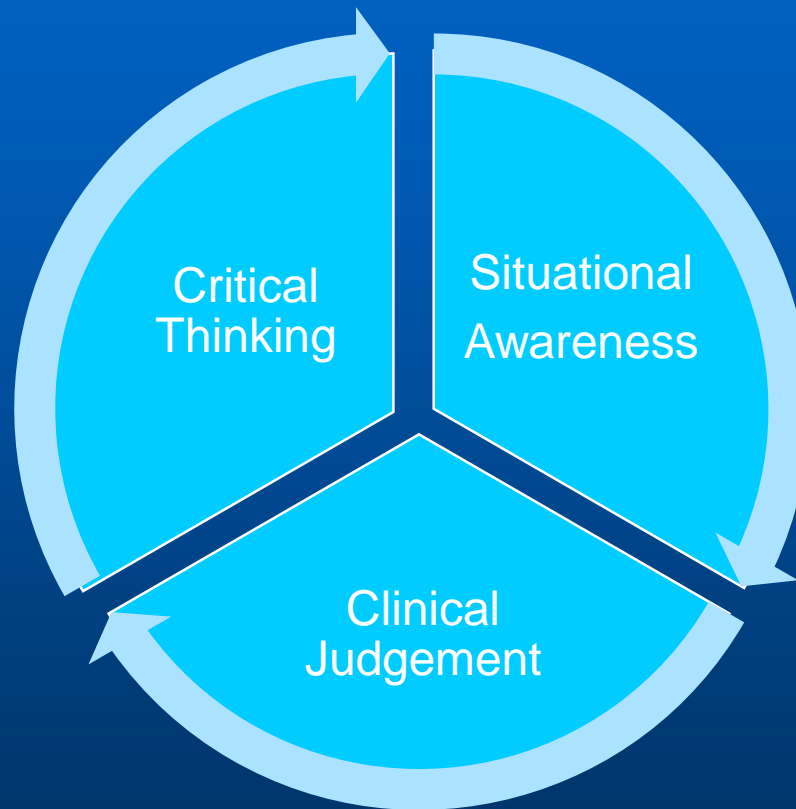


Learning Objectives:

- Discuss Situational Awareness.
- Identify barriers to the effective development of Situational Awareness.
- Describe strategies to promote Situational Awareness in pre-licensure student nurses.
- Discuss application of Condition Mapping to pre-licensure clinical education



Situational Awareness



Situational Awareness

- **Situational Awareness**
 - The ability to identify, process, and comprehend what is happening and predict outcomes in an effort to mitigate adverse events.



Pre-Licensure Clinical Education

- Employers are requiring Advanced Beginners
- Basic tenets of Situational Awareness and Clinical Judgement are embedded.
- Educators must develop effective techniques to promote student learning and teach effective SA.



Barriers to the Development of Situational Awareness



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Barriers

- No standardized Didactic Content
- Traditional Pre-Clinical Preparation
- Electronic Medical Record



Situational Awareness

- How do you teach an intuitive cognitive skill?
- How do you measure Situational Awareness?
- Clinical pre-planning the answer??



ODU Project

- No student EMR access in Adult Health II Spring
- Faculty decision no traditional pre-clinical prep
- Process defined with expectations to faculty and students



ODU Pre Clinical Preparation

- Demographics
- Patient History
- Pathophysiology of Primary Diagnosis
- Diagnostics/Lab data
- Medications/Inter Professional Interventions
- Patient Education/Discharge Planning.



Then the Care Plan

- **Nursing Diagnoses (4)**
 - Supported with Data
 - Prioritized
- **Goal for patient care and planned outcomes**
- **Discuss/Establish 5 patient specific interventions with rationales**



Pre-clinical Preparation

- Inefficient/Ineffective use of time.
- Minimizes Inductive and Deductive Reasoning



Electronic Medical Record Affect Learning?

- Availability
- Accessibility



Condition Mapping...

Is it the answer?



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Condition

Pathophysiology

Diagnostics (Labs/Radiology/Others)

Treatment

Patient Education

Discharge Planning

Mapping



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Clinical Day

- Demographics
- Patient History
- Pathophysiology of Primary Diagnosis
- Diagnostics/Lab data
- Medications/Inter Professional Interventions
- Patient Education/Discharge Planning.



Patient Specific Care Plan

....

- **Four Nursing Diagnoses**
 - Supported with Data
- **Goal for patient care and planned outcomes**
- **Prioritize Diagnoses**
- **Establish 5 patient specific interventions with rationales**



Facilitating Effective Situational Awareness



Condition Mapping

- Condition mapping to teach situational awareness
- Informal Feedback & Observations
- Student nurses and faculty



Observations & Feedback

Nurse Educators

Textbook
Scenario

Correlation of
Real Time Data

Individualized
Patient Care

Self-Directed
Learning

Collaboration
with
Interdisciplinary
Team



Observations & Feedback: Students

Integration into
the Healthcare
Team

Facilitation of
EMR
Usefulness

More Effective
Pre-Clinical
Prep

SNs Better
Prepared for
Clinical



Discussion

- Effective preclinical preparation methodology
 - Promotes organization and prioritization
 - Attaches to internal motivators for each student
- Addresses time laden TPP and EMR accessibility
 - Offers a sense of structure for gathering patient data while allowing for individuality relative to patient care management.



Conclusion

Condition Mapping

- Facilitates reflective thinking
- Cultivates Clinical Judgement
- Cultivates Situational Awareness
- Resulting in effective skills allowing for effective and safe patient care



Innovative pedagogical approaches to undergraduate nursing research: Avoiding the cursory critique

Jamela M Martin, PhD, RN, CPNP



Purpose

- Discuss the success of a project-focused evidence-based education strategy:
 - Undergraduate & RN-BSN nursing research courses
 - Experiential learning
 - Product development
 - Less intimidating



Learner Objectives

- Discuss components of AACN BSN Essential III: Scholarship for Evidence-based Practice.
- Compare AACN expected outcomes of EBP-implementation to actual progress towards that goal.
- Recognize the pitfalls of the typical nursing pedagogy regarding research and EBP.
- Identify three benefits of employing experiential learning strategies in research courses



Problem

- Translation of evidence into improved QOC remains substantial obstacle
- 17-20 years lag time
- TRIP Initiative (AHRQ, 1999-2000)
- 27 projects
- Help accelerate the impact of health services research on patient care
- Partnerships between health care orgs & researchers



The Big Myth...

- Advanced-practice nursing is the appropriate beginning level for EBP & Research implementation
- *Essentials of Baccalaureate Education for Professional Nursing Practice* (AACN, 2008)
- “Professional nursing practice is grounded in the translation of current evidence into one’s practice.”

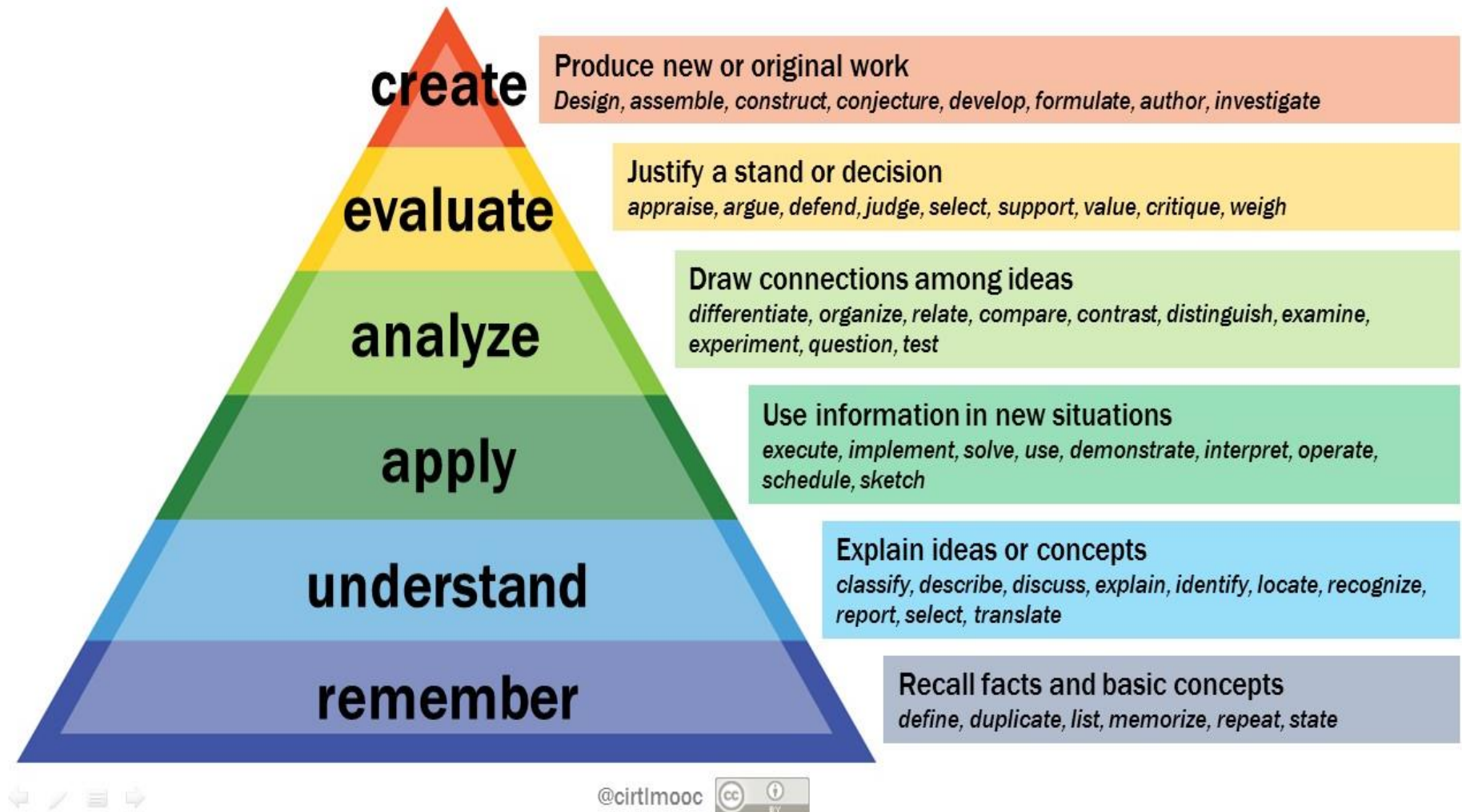


Traditional Approach

- Content delivery
- Basic research process knowledge
- Content memorization with quizzes & exams
- Focus only on skills needed to locate & critique research reports



Bloom's Taxonomy



(Anderson & Krathwol, 2001; Bloom, 1956)



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Innovative Approach

- Constructionist approach
- Deeper involvement when constructing
- Comprehensive teaching of research methods
 - Project-focused
 - Tangible output of research proposal
 - Relevant, current topics
 - Build knowledge through creation



Innovative Strategy Goals

- Hybrid (flipped) class design
- Engagement with steps of the research process
→ think like an expert
- Use constructionist approach to create a useful product
- Collaboratively engage in teamwork
- Polish academic writing skills
- Prepare new graduates nurses to critically analyze and implement evidence with confidence



Brainstorming Phase

- **Write PICO Question**
 - (Problem, Intervention, Comparison, Outcome)
- **Brainstorm Concept Map**
- **Create Literature Review Table**
- **Develop Conceptual Framework for proposal**
- **Determine research question, hypothesis & variables**



Assignment #1

- 10-12 page research proposal
 - Abstract
 - Background
 - Significance
 - Theoretical Framework
 - Methods
 - Sampling Plan
 - Data Collection Procedures
 - Data Analysis Plan
 - Human Subjects Protection



Assignment #2

The Effect of an Interprofessional Registered Nurse-Physical Therapist Team on Reducing Prescribed Opioid Dependence in Patients with Chronic Lower Back Pain



Abstract

Chronic lower back pain (CLBP) is a leading cause of disability and is often managed with long-term opioid therapy. However, long-term opioid use is associated with the development of opioid dependence, which can lead to addiction and overdose. The purpose of this study was to evaluate the effect of an interprofessional registered nurse-physical therapist team on reducing prescribed opioid dependence in patients with CLBP. The study was a randomized controlled trial conducted in a tertiary care hospital. The intervention group received care from the interprofessional team, while the control group received care from a single provider. The primary outcome was the number of opioid prescriptions at baseline and follow-up. The results showed that the interprofessional team significantly reduced the number of opioid prescriptions compared to the control group. These findings suggest that an interprofessional team approach may be effective in reducing opioid dependence in patients with CLBP.

Hypothesis

It is hypothesized that the interprofessional registered nurse-physical therapist team will significantly reduce the number of opioid prescriptions compared to the control group. This hypothesis is based on the fact that the interprofessional team approach allows for a more comprehensive assessment of the patient's needs and a more coordinated plan of care. The registered nurse and physical therapist can work together to provide pain management, education, and support to the patient, which may lead to a reduction in opioid dependence.



Interprofessional Roles and Responsibilities

Proposed Interprofessional Team:

- Registered nurse: Provide patient education, monitor vital signs, and administer medications.
- Physical therapist: Provide pain management, education, and support to the patient.

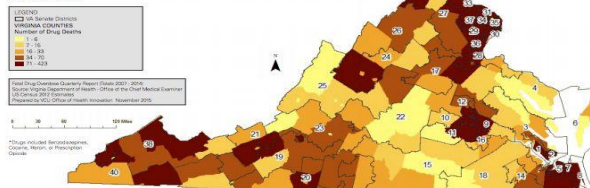
Positive outcomes:

- Reduction in opioid dependence.
- Enhanced patient functioning and quality of life.

A Counseling Perspective:

- The interprofessional team approach allows for a more comprehensive assessment of the patient's needs and a more coordinated plan of care.
- The registered nurse and physical therapist can work together to provide pain management, education, and support to the patient, which may lead to a reduction in opioid dependence.
- The interprofessional team approach may be effective in reducing opioid dependence in patients with CLBP.

Number of All Fatal Drug* Overdoses in Virginia Cities and Counties, CY2007-2014



Outcomes

- Improved group work skills
- Improved oral & written communication
- Tangible product for portfolio
- Prepared to critically analyze research
- Translation of evidence with increased confidence
- Active engagement in research post-graduation



Outcomes

- UG student conference presentations
 - National Conference on Undergraduate Research
 - Quality and Safety Education for Nurses
 - Virginia Nurses Association
 - STTI Biennial Conference
- Aligns ODU SON with national push for more UG research
- Pride in their accomplishments



Student Feedback

“The assignments in this class were very demanding in that we needed to know the course material and be able to apply it in order to complete the assignment appropriately.”



Student Feedback

“The fact that we were able to choose our own topics to research made the projects more interesting. In addition, the fact that [what] we were researching will be completely applicable to our future nursing practice made the class better.”



Using evidence-based educational practices to improve graduation rates for RN-BSN students from disadvantaged backgrounds

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***Funded by a HRSA NWD Grant in Partnership with Old Dominion University and Riverside Shore Memorial**



Purpose

The purpose of this presentation is to describe an educational model using evidence-based practices to improve graduation rates for RN-BSN students from socially and economically disadvantaged backgrounds



Learning Objectives

- Describe barriers to BSN degree completion for nurses from socially and economically disadvantaged backgrounds.
- Identify evidence-based educational strategies to improve student success for nurses from socially and economically disadvantaged backgrounds
- Describe the components of an evidence-based educational model designed to promote nursing workforce diversity



Background



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Barriers to BSN completion

- Personal, professional, and academic factors (Altmann, 2011)
- Environmental, institutional, personal, college facilities and friend support (Jeffreys 2007, 2012)
- Academia, employer, and individual (Duffy et al, 2014)



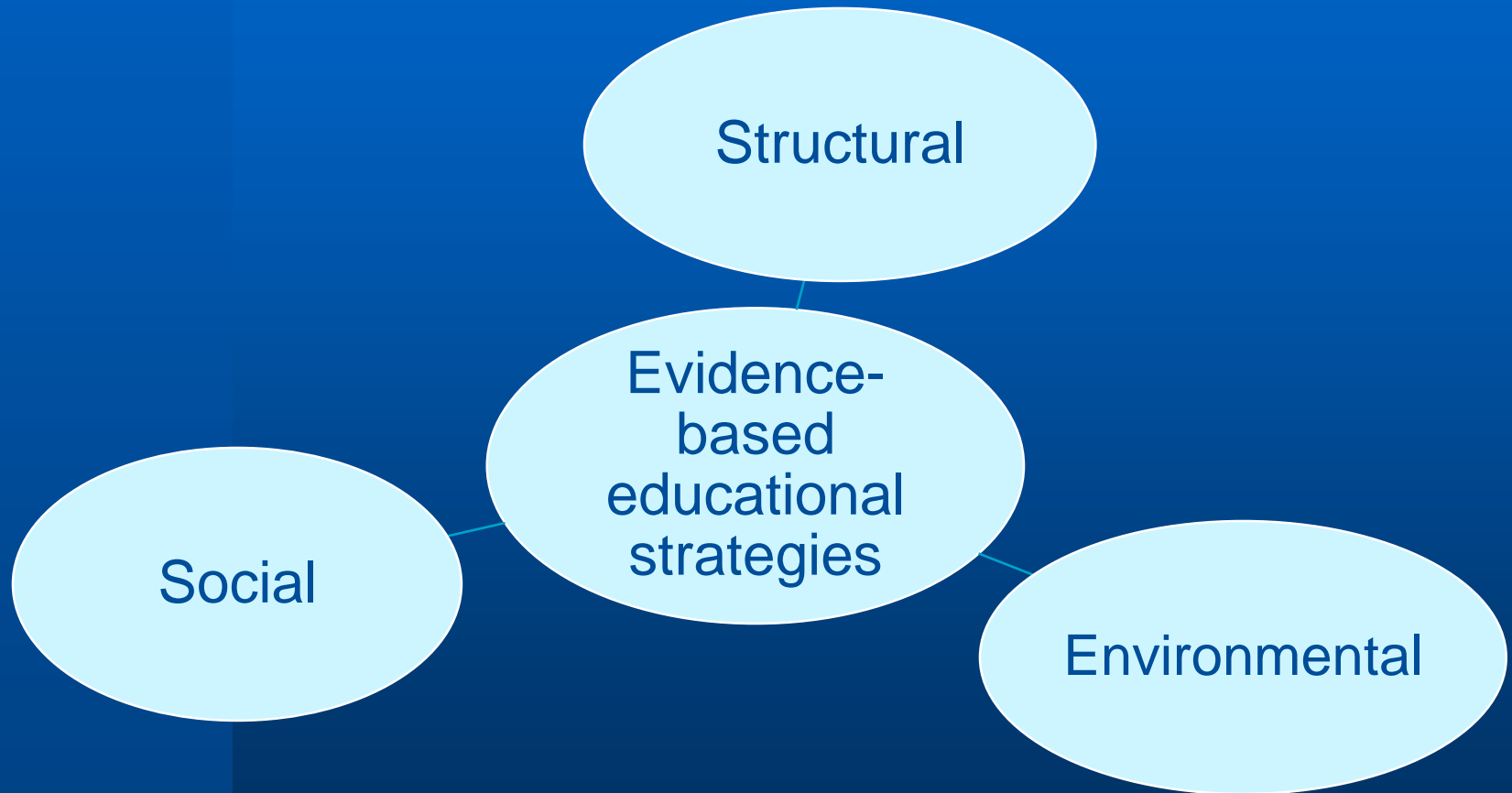
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Educational Model



Structural Support

Cohort Model

Individualized Advising

Flexible Scheduling

Tuition Assistance

Academic Support



Environmental Support

Hospital Library

Study Space

Computer Access

Faculty Office



Social Support

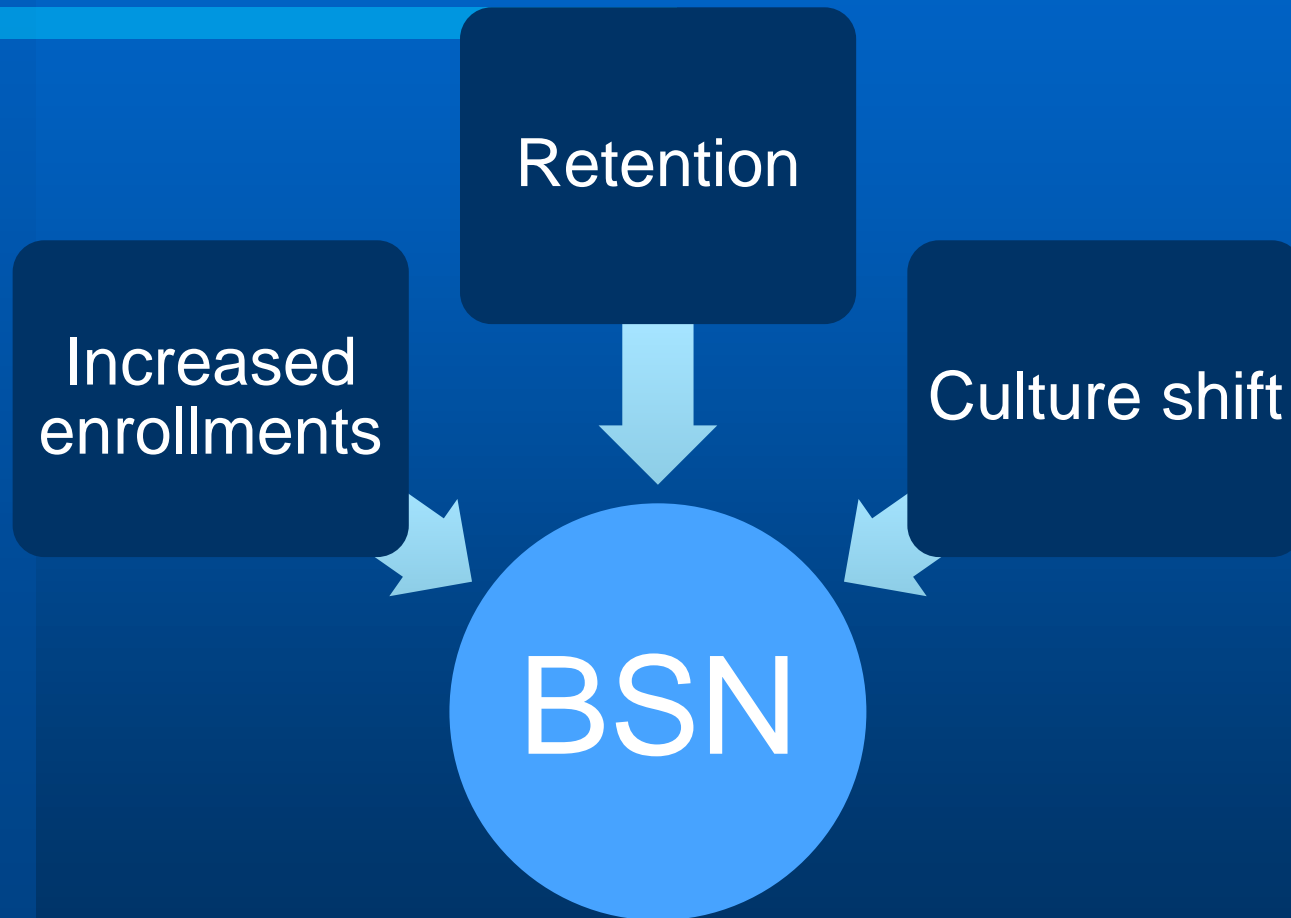
Faculty Mentor

Peer Mentor

Single Cohort Schedule



Conclusion



Questions & Discussion

(references available upon request)

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