Use of Standardized Patients to Enhance Health Assessment Skills of Undergraduate Nursing Students

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Disclosure

• Director of Simulation Learning and Assistant Clinical Professor at NYUCN

• Consultant for Wolters Kluwer
The learning outcomes for this presentation are:

1. Understand the difference between peer physical examination (PPE) and examination using a standardized patient (SP).
2. Discuss strategies to promote critical thinking development in undergraduate health assessment.
3. Identify three benefits of using SPs for teaching and evaluation in an undergraduate health assessment course.
Traditional Undergraduate Assessment

- Traditional health assessment validations using peer physical examination (PPE)
  - May promote simple memorization over development of critical thinking
  - Inability to assess abnormal findings in a standardized manner
  - Uncomfortableness being assessed by peers
Standardized Patients

- **Standardized patients (SPs)** have been used in medical education since the 1960s
  - Used most prominently in graduate nursing education (nurse practitioner assessment courses)
  - Potential to increase critical thinking and enhance learning through focused feedback
The Literature

• Use of SPs enhances clinical and communication skills and improves clinical judgment (Yoo & Yoo, 2003)

• Students using SPs for practice and lab scored higher on final performance evaluation compared to students who used PPEs (Bornais, Raiger, Krahn, & El-Masri, 2012; Gibbons et al., 2012)

• SPs favored over manikins (Grice, Wenger, Brooks, & Berry, 2012)
Revision of Health Assessment Course

- Interactive case studies into weekly simulation
- Midterm and final validations
  - Case-based scenario
  - Comprehensive grading rubric
  - Use of SPs instead of partners
- Goal was to promote increased critical thinking and less memorization
Revision of Health Assessment Skills

- Focus on skills necessary for a new RN
  - Eliminated advance skills and obsolete nursing assessments
- Reviewed med/surg patient assessment forms from various hospitals
Weekly Interactive Case Study

- Topic follows week’s lesson i.e. female patient having a MI
- Group 1 - Obtains history
- Group 2 - Performs physical assessment
- Provide students with diagnosis and orders
- Group 3 - Develops a basic nursing plan and provides patient education
Midterm Asthma Case Study

• 50 year old who arrived to the emergency department 2 hours ago due to an asthma exacerbation.
• S/He has had asthma for the past 35 years.
• The patient has just received a nebulizer treatment 2 minutes ago.
### Introduction:

<table>
<thead>
<tr>
<th></th>
<th>Met</th>
<th>Unmet</th>
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<tbody>
<tr>
<td>1. Performs appropriate hand hygiene prior to examining patient.</td>
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<td>2. Introduces self by name and title.</td>
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<td>3. Identifies the patient using two approved identifiers (name, date of birth).</td>
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<td>4. Explains to the patient the procedures (respiratory-focused head to toe assessment) to be performed.</td>
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### Respiratory-Focused Head to Toe Assessment

#### Respiratory Assessment - Subjective:

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<tbody>
<tr>
<td>1. Asks about the patient’s present respiratory symptoms/status.</td>
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#### Respiratory Assessment - Subjective:

2. Assesses patient’s present respiratory symptoms/status, including at least four (4) of the OLDCARTS criteria:

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<tbody>
<tr>
<td>a. Onset (when did it begin)</td>
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<td>b. Location (where do you feel the symptoms)</td>
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<td>c. Duration (how long has it lasted, does it come and go)</td>
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The Study
Study Methods

• IRB-approved, mixed-method, descriptive study
• Survey (using Qualtrics) to compare perceptions of comfort, critical thinking, and preparation for clinical practice between two cohorts:
  o First Cohort – prior to course revisions; validations using PPEs
  o Second Cohort – after course revisions; validations using SPs
Survey and Data Analysis

• Demographic Information
  o Frequency distributions; independent samples $t$-tests for cohort comparisons

• 13 Likert-type questions (5-point scale)
  o Independent samples $t$-tests for cohort comparisons

• 5 open-ended survey questions
  o Content analysis
Participants

- 117 students participated
  - 70 for first cohort (25% response rate)
  - 47 for second cohort (32% response rate)
- No significant differences between cohorts for gender, age, and race/ethnicity
- First cohort had more traditional students (31% vs 6% for the second cohort)
Results
Significant Cohort Differences

- Helpfulness of demonstration video
  - *First cohort felt more helpful than second*
- Nervousness prior to examination
  - *Second cohort felt more nervous than first*
- Comfortable performing examination
  - *First cohort felt more comfortable than second*
Significant Cohort Differences

• Performance was based on simple memorization
  o *First cohort more strongly agreed than second*

• Had to use critical thinking skills for the examination
  o *Second cohort more strongly agreed than first*

• Using an SP more realistic than using PPE
  o *Second cohort more strongly agreed than first*
Content Themes

• What did you like most?
  o First cohort – *familiarity, comfortability, practice*
  o Second cohort – *realistic, feedback*

• What did you like least?
  o First cohort – *unrealistic, uncomfortable, memorization*
  o Second cohort – *nothing, lack of consistency, SP tiredness*
Content Themes

• What would you have liked…?
  o First cohort – realistic, critical thinking
  o Second cohort – less nervous, more comfortable

• What would you not have liked…?
  o First cohort – more nervous, uncomfortable
  o Second cohort – not realistic, memorization
Content Themes

• What suggestions do you have for improvement?
  o First cohort – *critical thinking over memorization, more practice time*
  o Second cohort – *nothing, consistency*
Cohort Comparison

Spring 2013

Return Demonstration Results

Fall 2013

Return Demonstration Results
Conclusions

• Incorporation of SPs and case-based scenarios into an undergraduate health assessment course can:
  - Improve assessment skills
  - Increase critical thinking skills
  - Provide a more realistic clinical experience
  - Facilitate translation to clinical practice
Limitations

- Convenience sample
- Low response rate
- Differing simulation experiences
- Context of Likert-type questions may have influenced open-ended questions
Future Research

• Using standardized tools for measuring critical thinking to determine impact of SP use
• Randomized trials evaluating differences between use of PPEs and SPs
• Examining cost versus benefit of using SPs in the undergraduate nursing program
Thank you !!!
