Teaching End-of-Life Care

Comparing the Impact of a Discussion Based Case Study Format to Interprofessional Simulation

IRB Approval #UFJ 2014-179
Outline

Design Process
- Kathleen Solomon, MS, ARNP-BC
- Clinical Assistant Professor
- University of Florida College of Nursing

Implementation process
- Jane Gannon, DNP, CNM, CNL
- Clinical Assistant Professor
- University of Florida College of Nursing

Outcome analysis
- Carol Motycka, Pharm.D., BCACP
- Clinical Associate Professor
- Assistant Dean and Campus Director
- University of Florida College of Pharmacy
Background
What is Service Learning?

- Learning by doing
- Applying academic concepts to meet community needs.
- Meeting course objectives by serving outside the classroom.
- Deepening understanding through reflecting on real life experiences.
- Integrating service into the academic curriculum to reinforce learning.
Background

Service Learning Framework

IFH

Health Professions
Dentistry
Public Health
Nursing
Medicine
Pharmacy

Home Visits
Seminar
Team Building
Simulation

Case Studies
Team Members

College of Pharmacy
- Carol Motycka
- Tommy Smith
- Eric Egelund

University of Florida
- Dale Kraemer (Statistician)

College of Nursing
- Kathleen Solomon
- Jane Gannon

UFHealth/Jacksonville
- Kelly Denson
- Teresa Cummins
Planning Process

Selecting a curriculum content area to pilot a simulation strategy

– End-of-Life Care

- EOL care a competency found across all ARNP tracks
- Medication expert across all populations a pharmacy competency
- Both have inter-professional/ collaboration based competencies
Planning Process

- Recruiting content area experts
  - Nursing staff with ELNEC training
  - Faculty with simulation expertise
  - Researchers with outcome evaluation expertise

- Bimonthly meetings to:
  - Determine study purpose
  - Explore funding opportunities
  - Identify resources
  - Identify/ construct simulation scenarios
Project Purpose

Pilot study to measure perceived preparedness for EOL care following exposure to either traditional paper or simulation based case studies.

IRB #UFJ 2014-179 Granted Exempt Status
Methods

- Design

Pre-post survey design comparing the impact of traditional paper-based case studies with interprofessional simulated scenarios focused on End-of-Life Care competencies
Implementation Process

Scenario Development Process

- Standardized set of case studies utilized to teach application of Law and Ethical concepts in End of Life care scenarios in all groups
  
  Case 1: Unrelenting pain, suicide risk
  
  Case 2: Widely metastatic lymphoma, pressured by family to undergo BMT
  
  Case 3: Parents refusing life support for their baby
  
  Case 4: Futile treatment: Diagnostic surgery on a dying patient
# Implementation Process

## Paper Based
- All students complete IPC questionnaire
- Complete assigned readings
- All pharmacy students
- View prerecorded lecture
- Review case
- Facilitator led discussion using case based questions
- All students complete IPC questionnaire

## Simulation Based
- All students complete IPC questionnaire
- Complete assigned readings
- 4 groups of 10 students, 1:8 ratio of graduate nurse: pharmacy students
- Rotate through 4 simulated scenarios
- Facilitator led discussion using case based questions
- All students complete IPC questionnaire
Implementation Process

Methods

- Evaluation Tool
  - End-of-Life Professional Caregiver Survey
    - 28 items measuring:
      - perceived patient and family centered communication (12 items)
      - cultural and ethical values (8 items)
      - effective care delivery (8 items)
    - Items are scored on a 5 point Likert scale from “Not at all” to “Very much”

Parents refusing life support for their baby

1. Experience the case
2. Facilitated discussion

Widely metastatic lymphoma, pressured by family to undergo BMT

1. Experience the case
2. Facilitated discussion

Unrelenting pain, suicide risk

1. Experience the case
2. Facilitated discussion

Futile treatment: Diagnostic surgery on a dying patient

1. Experience the case
2. Facilitated discussion
Classroom Based

Widely metastatic lymphoma foreclosed by unilateral multiple myeloma. Diagnostic surgery on a dying family to undergo BMV.

1. Read the case
2. Facilitated discussion

Case 4
Simulation Example

Case 1

– 80 year old Charlie- widower, retired chemist
Facilitated Discussion Format

Students instructed to frame responses using the Oregon Death With Dignity Act
- What has Charlie expressed?
- Are the drugs ordered indicated for Charlie's condition?
  - Are they the best choice?
- Could these drugs end his life?

The facilitator utilizes the following framework to guide the discussion
- Step 1: Clarify the facts
- Step 2: Clarify the values
- Step 3: Determine the options
- Step 4: Choose an option
Data Analysis Process

- Compared performances on each campus using frequency histograms, summary statistics
  - Found all campuses exposed to traditional, paper based case studies performed similarly

- Grouped data into 2 comparison groups
  - Group 1: GNV, ORL and St Pete (Paper based intervention) n=140
  - Group 2: JAX (Simulation intervention) n=35

- Compared pre-post scores on individual items within each domain
  - (P) Patient and family-centered communication
  - (C) Cultural and ethical values
  - (E) Effective care delivery

- Conducted a Bonferroni Adjustment
<table>
<thead>
<tr>
<th>SURVEY ITEM</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>P1</strong> I am comfortable helping families to accept a poor diagnosis</td>
<td>0.0173</td>
</tr>
<tr>
<td><strong>P2</strong> I am able to set goals for care with patients and families</td>
<td>0.9999</td>
</tr>
<tr>
<td><strong>P3</strong> I am comfortable talking to patients and families about personal choice and self-determination</td>
<td>0.9999</td>
</tr>
<tr>
<td><strong>P4</strong> I am comfortable starting and participating in discussions about code status</td>
<td>0.0048</td>
</tr>
<tr>
<td><strong>P5</strong> I can assist family members and others through the grieving process</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td><strong>P6</strong> I am able to document the needs and interventions of my patients</td>
<td>0.9999</td>
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# Patient and Family-centered Communication

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>P7 I am comfortable talking with other health care professionals about the</td>
<td>0.0057</td>
</tr>
<tr>
<td>care of the dying patient</td>
<td></td>
</tr>
<tr>
<td>P8 I am comfortable helping to resolve difficult family conflicts about</td>
<td>&lt;0.0001</td>
</tr>
<tr>
<td>end of life care</td>
<td></td>
</tr>
<tr>
<td>P9 I can recognize impending death (physiologic changes)</td>
<td>0.0498</td>
</tr>
<tr>
<td>P10 I know how to use non-drug therapies in management of patients’</td>
<td>0.9999</td>
</tr>
<tr>
<td>symptoms</td>
<td></td>
</tr>
<tr>
<td>P11 I am able to address patients’ and family members’ fears of getting</td>
<td>0.0347</td>
</tr>
<tr>
<td>addicted to pain medications</td>
<td></td>
</tr>
<tr>
<td>P12 I encourage patients and families to complete advanced care planning</td>
<td>0.0123</td>
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## Cultural and Ethical Values

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<tr>
<td>C1 I am comfortable dealing with ethical issues related to end of life/hospice/palliative care</td>
<td>0.0007</td>
</tr>
<tr>
<td>C2 I am able to deal with my feeling related to working with dying patients</td>
<td>0.0153</td>
</tr>
<tr>
<td>C3 I am able to be present with dying patients</td>
<td>0.0116</td>
</tr>
<tr>
<td>C4 I can address spiritual issues with patients and their families</td>
<td>0.0177</td>
</tr>
<tr>
<td>C5 I am comfortable dealing with patients’ and families’ religious and cultural perspectives</td>
<td>0.0009</td>
</tr>
<tr>
<td>C6 I am comfortable providing grief counseling for families</td>
<td>0.0007</td>
</tr>
<tr>
<td>C7 I am comfortable providing grief counseling for staff</td>
<td>0.0011</td>
</tr>
<tr>
<td>C8 I am knowledgeable about cultural factors influencing end-of-life care</td>
<td>0.0163</td>
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## Effective Care Delivery

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<tr>
<td><strong>E1</strong> I can recognize when patients are appropriate for hospice referral</td>
<td>0.0231</td>
</tr>
<tr>
<td><strong>E2</strong> I am familiar with palliative care principles and national guidelines</td>
<td>0.9999</td>
</tr>
<tr>
<td><strong>E3</strong> I am effective at helping patients and families navigate the health care system</td>
<td>0.9999</td>
</tr>
<tr>
<td><strong>E4</strong> I am familiar with the processes hospice provides</td>
<td>0.0216</td>
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<tr>
<td><strong>E5</strong> I am effective at helping to maintain continuity across care settings.</td>
<td>0.0034</td>
</tr>
<tr>
<td><strong>E6</strong> I feel confident addressing requests for assisted suicide</td>
<td>0.9999</td>
</tr>
<tr>
<td><strong>E7</strong> I have personal resources to help meet my needs when working with dying patients and families</td>
<td>0.9999</td>
</tr>
<tr>
<td><strong>E8</strong> I feel that my workplace provides resources to support staff who care for dying patients</td>
<td>0.9999</td>
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## Items Remaining Significant with Bonferroni-adjustment

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Discussion

- 5 of 8 culture and ethics items demonstrated significantly greater positive change in simulation group.
- Simulations involved verbal interactions with simulated patients, but changes in student perceptions of all but 2 communication items were similar to paper based cases.
- Simulation exposure no different than paper cases in meeting care delivery learning needs.
Discussion

Challenges

- ARNP student recruitment
- Scheduling logistics
- Online survey tool format
  - Access issues
- Lab environment issues
- Need for training faculty participants
Limitations

- Uneven preparation by students
- Some post surveys not completed - removed from analysis
- Uneven ratios in groups
- Different levels of students
  - Education
  - Past experience
Conclusion

Simulation is as good as, or better, than traditional teaching strategies in meeting cultural/ethical learning needs in end-of-life care, using our current case based scenarios.

This study helps inform future plans for inter-professional simulation based learning activities.