Communication and Self-Efficacy through Transformational, Observational, and Experiential Learning during an Intra & Interprofessional Education 12 Hour Night Shift Simulation Event

Holldrid Odreman PhD, MScN-Ed, RN & Dawn Clyens, MN, RN
Dr. Holldrid Odreman is a full-time faculty and program coordinator in the Practical Nursing program at Niagara College and a certified Simulationist from the SIMone Ontario Simulation Network. Dr. Odreman holds a Ph.D. in Education with a specialization in Adult Education Leadership. Dr. Odreman also holds a Master of Science in Nursing Education and has a background in critical care nursing and clinical nursing education. Key areas of expertise include simulation-based learning and clinical teaching, faculty & staff professional development, quality control and efficient educational strategies that enhance the theoretical and practical learning experiences of learners and faculty. Adult education leadership, effective learning strategies, and simulation-based learning are critical areas of research interests.
Dawn Clyens, M.N, R.N, Certified Simulationist, is a professor at Niagara College, teaching full-time in the Practical Nursing Program. Her primary focus of teaching is in the clinical practice lab, and more recently developing online courses (pharmacology). She received her Registered Nursing diploma from Humber College, a degree in Health Studies/Administration from York University, and a Masters in Nursing from Athabasca University. Having spent 15 years working at Scarborough General Hospital in a variety of clinical settings she settled into critical care nursing with a focus in Cardiology, and worked for 10 years as a Clinical Nurse Specialist and Manager of a Cardiac Rehabilitation program in the Scarborough Community. Moving to the Niagara region 7 years ago allowed her the opportunity to develop the online Acute Cardiac Care Program for Mohawk College, at the same time beginning to teach into the BScN program. Currently her passion is teaching clinical skills within the context of providing safe learning experiences for students in the simulation health lab for chronic and acute health care challenges.
Presenter Disclosure

- Holldrid A Odreman, PhD, MScN-Ed, RN & Dawn Clyens, M.N, R.N
  - No financial disclosure relate to the planning, implementation, and evaluation of this presentation
In this presentation we will present:

- The Background
- The Event Goals/Learning Objectives
- Developing The Plan
- The Event
- The Post-Event Follow-up, Literature Review & Theoretical Support
- The Lessons Learned
- Future Plans

Holldrid A Odreman, PhD, MScN-Ed, RN
Professor & Program Coordinator - PN Program
Certified Simulationist (SIMone)
Niagara College Canada | Welland Campus |
100 Niagara College Boulevard | Welland |
Ontario L3C 7L3
905-735-2211 extension:7381
Work email: hodreman@niagaracollege.ca
Objectives

• By the end of the presentation the audience will be able to:
  ➢ Describe the concepts used to guide the night shift simulation event.
  ➢ Appraise the outcomes of the simulation night shift events as ways of supporting the academic success of practical nursing students.
  ➢ Generalize the simulation objectives to their practice of teaching and learning.
  ➢ Replicate the event in the future, if desired, using the information presented modified to suit their own goals and objectives.
Introduction: How Did it All Begin?

• **SIM-one Exposition 2013 UOIT & Durham College Poster Presentation**
  – Poster Presentation (University of Ontario Institute of Technology & Durham College)
  – Night shift event using mannequins and small sample of IPE students

• **Our simulation project:**
  – Innovative and unique learning experience
  – Recently certified as simulationist
Introduction: Background & Literature

• Chorney, De La Rocha, and Graham (2014, Poster)
  – All through the night: An interprofessional high fidelity simulation experience

• Mole and McLafferty (2004)
  – Evaluating a simulated ward exercise for third year student nurses

• Gore, Hunt, and Raines (2008)
  – Mock Hospital Unit Simulation: A Teaching Strategy to Promote Safe Patient Care
Event Goals/Learning Objectives

• Extracurricular Learning Activity
  ➢ Facilitate Meaningful Communication
  ➢ Promote Learning and Self-Confidence
  ➢ Enhance Organizational Skills
  ➢ Opportunity for Self-Discovery by Learning from Others (Observational Learning)
Developing the Plan

• Logistics
  ➢ Students
  ➢ Support staff
  ➢ Patient case scenarios
  ➢ Props and artifacts
  ➢ space and layout

• Pre-Survey
  ➢ Gauging students’ goals and expectations for the event
Developing the Plan

• Limiting the scope of the event
  - Containment
    - Better management of potential unpredictable events
    - A way of anticipating for what would/could happen

• Gauging Learner Expectations Before the Event: Online Survey
  - Motivation of the learner to participate
  - Learner assumptions of the role of nurses during night shift
  - Challenges or concerns regarding night shift
  - What learners expect to feel during the night shift; strategies for staying alert
  - Learners’ personal learning goals for the simulation experience
Bay Closed for Storage of furniture:
- beds
- stretchers
- wheel chairs
- tables
- etc...

Developing the Plan: Floor Plan
Developing the Plan: Space Layout
Developing the Plan: Space Layout
Developing the Plan: Space Layout
Developing the Plan: Space Layout
Developing the Plan: Nursing Students

• Blackboard announcement
  - Not formal research activity
  - Interested to participate in extracurricular activity

• Expected small number of students to help manage the event
  - Mid point in the academic term (Reading Week)
  - Willing to individualize the activity based on number of students
  - Expected 14 to 15 interested students
  - Total of 11 nursing students
  - 2 Medical students to participate
Developing the Plan: Scenarios

• Three complete scenarios
  
1. SP role-playing Post-Appendectomy, Type A personality, non complaint
2. High fidelity Mannequin as a patient with Heart Failure in isolation precautions for MRSA with SP role-playing family member
3. High fidelity Mannequin as a patient with COPD
Developing the Plan: Scenarios

• Volunteers as Patients
  ➢ Six volunteers
  ➢ Role-played non-specific cases
  ➢ Focus on nursing skills:
    • Dressings
    • Transfer
    • Medication administration
    • Assessments
    • Communication
The Plan: Staffing

• “Man in Black”
  – Behind the scenes titrating scenario events
  – Supporting use of props
• Multiple role player
  – Night supervisor, Team leader during shift report, ICU nurse, Charge nurse
• Lab technologist
  – Simulation control room for high fidelity mannequins
• Nursing staff
  – Preceptor role
• Physician
  – Medical clerks
The Plan: Administrative Support

• Support from Dean

• Invitations to President and VPA
  – VPA in attendance

• FMS (Facility Management Support)
  – Communication regarding use of building facility, security, temperature control over night, motion sensor lighting

• Room booking
  – Additional locations for storage, food, debriefing
The Plan: Administrative Support

• **Financial Support:**
  – Cost of SPs, food/refreshments
  – Gifts for volunteers (i.e.: NC gift bags)

• **Staffing:**
  – Part Time staff volunteered their time
  – Full Time staff were not expected to come back the next day
Developing the Plan: Props & Artifacts

• Props
  - Simulated wounds, dressings, IV pumps, vital signs equipment
  - Medication Carts, beds and stretchers

• Artifacts
  - Charts with Nurses Notes, MARs
  - Physician orders

• Environmental Fidelity
  - Simulation lab layout and furnishings
  - Low-lighting
  - Background hospital noises
The Actual Event

• 1830 hours
  – Briefing for staff and patients
• 1900 hours (actual time 1930 hours)
  – Shift report to students by team leader
• 1930 to 0300 hours
  – Routine nursing care
• 2200 hours
  – Team rounds with physicians and nurses
• 0300 hours Big group Debrief
• 0600 hours TOA day shift report between learners and Team leader
Actual Event

- 2200 hours
  - Team rounds with physicians and nurses, students
Actual Event

- 0600 hours TOA day shift report between learners and Team leader
Actual Event: Patient Assignments

- Level 2 nursing students caring for Volunteers as Patients:
  - Assessments
  - Routine care
  - Reporting to level 3 nursing students

- Level 3 nursing students caring for COPD Patient & Volunteers as Patients:
  - Complex wound care
  - Medications
  - Reporting to level 4 nursing students
Actual Event: Patient Assignments

- Level 4 nursing students caring for Post-Appendectomy:
  - Patient compliance
    - Difficult patient
    - Conflict resolution
  - Post-op wound care
  - IV medications
  - Delegation of care to junior nursing students
Actual Event: Patient Assignments

- Level 4 nursing students caring for CHF-MRSA Mannequin with SP as Family Member:
  - IV medications
  - Delegation of care to junior nursing levels (as appropriate)
  - Ongoing assessment status
Actual Event: Patient Assignments

- Level 4 nursing students caring for CHF-MRSA Mannequin with SP as Family Member:

  ➢ Communication:
    - Physician report and orders
    - Call night supervisor
    - Arrange transfer to ICU

  ➢ Leadership skills
    - Bed management & hospital bed-flow (Discharge)
Actual Event: Patient Assignments

- Level 4 nursing students caring for CHF-MRSA Mannequin with SP as Family Member:
  - Actual transfer
  - Support for family member
  - TOA ICU nurse
Group Debrief

- **SPs, all staff, learners** (Volunteers as Patients sleeping)
- Pre-Survey Guiding following questions
  - How were you feeling?
  - What are you doing to keep alert? how is it working for you?
  - What is the value of the experience at this point?
  - Any need for Clarification
Group Debrief
Group Debrief

• What was **Anticipated** based on our assumptions on how they would feel for their first night shift?
  – Assumptions about how goals would be met? (i.e.: perceived increased confidence in skills)
  – They reported:
    • Keeping busy makes time go faster
    • Not too bad
    • Eating and drinking helped
    • Not matter what she did, she felt poorly
    • No breaks
Group Debrief

• What they shared that was not anticipated
  – Communication with preceptors and between levels of students
  – Operating in a more independent way
  – Mentorship Process:
    • Junior students impressed by senior students confidence and skill level
    • Junior students anticipating their future skill set and abilities based on their interactions and observations with the senior students and preceptors
    • Socialization
Group Debrief

- What they shared that was not anticipated
Follow Up One Week Post Event

• Post-Survey (volunteer basis)
  - Students expressed motivation to participate in a similar simulation event.
  - Lessons learned about the work of nurses during the night shift.
  - Identified concerns that nurses have during the night shift.
  - How students felt during the night shift as opposed to how they expected to feel before the actual event.
  - Assessment of students’ planned strategies to help them stay alert.
  - Assessment and evaluation of students personal learning goals.
Follow Up Post-Survey themes

- Perceived Increase in Confidence
- The Nurse Preceptor Experience
- The Overall Simulation Experience
Follow Up Post-Survey themes

• Perceived Increase in Confidence with
  - Patient assessments
  - Anticipating the needs of patients and other team members
  - Communicating efficiently and effectively with
    - physicians during rounds and phone report
    - preceptors
Follow Up Post-Survey themes

• **Nurse Preceptor Experience**
  - Preceptor was knowledgeable about the patient care
  - Preceptor encouraged active participation during
    - patient care
    - patient rounds with physicians
    - medication administration
    - patient transfer to the ICU
  - Preceptor provided comfortable atmosphere during the simulation event
Follow Up Post-Survey themes

• Overall Simulation Experience
  ➢ The purpose and event objectives were clearly understood
  ➢ The simulation environment resembled a real-life setting
  ➢ The debriefing time was constructive and enhanced the learning
  ➢ The learning environment was safe
  ➢ Would participate in another simulation experience
Theoretical Support

• Mezirow (1991)
  – Transformative Learning
• Collins, Brown, and Newman (1989)
  – Cognitive Apprenticeship Model
• Bandura (1977)
  – Self-Efficacy
• Wildemeersch, Jansen, Vandenabeele, and Jans (1998)
  – Social Learning
2015 Event: 12 Hour Night Shift

- Outcomes and Lessons learned from 2014 event
- Increasing the scope of the event
  - 24 learners
    - nursing students
    - PSW to nursing bridge
    - PSW
    - Levels 2, 3, 4 nursing students
    - Medical Students (Role of Attending and Specialists)
  - Level 1 students
    - Patients
  - Recent nursing graduate
    - As Part of nursing staff
  - nursing consolidation student
    - New Nurse in the Unit
  - Two additional faculty members
    - Support the simulation demands due to increase in complexity
**2015 Event: Space & Layout**

### Patient Assignments, Staffing Unit Assignments White Board

<table>
<thead>
<tr>
<th>Medical Long Term Care</th>
<th>Medical Surgical</th>
<th>Acute Complex Care</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Charge Nurse:</strong> Angela, Carrie</td>
<td><strong>Charge Nurse:</strong> Dustin, Carrie</td>
<td><strong>Charge Nurse:</strong> Carina</td>
</tr>
<tr>
<td><strong>Preceptors:</strong></td>
<td><strong>Preceptors:</strong></td>
<td><strong>Preceptors:</strong></td>
</tr>
<tr>
<td>Bed 1</td>
<td>Bed 2</td>
<td>Bed 1</td>
</tr>
<tr>
<td>Kirsten</td>
<td>Heather</td>
<td>Darlene P.</td>
</tr>
<tr>
<td>Bed 2</td>
<td>Bed 2</td>
<td>Bed 2</td>
</tr>
<tr>
<td>Vicky, Darlene, Jason</td>
<td>Heather</td>
<td>Tess, Darlene</td>
</tr>
<tr>
<td>Bed 3</td>
<td>Bed 3</td>
<td>Bed 3</td>
</tr>
<tr>
<td>Kirsten</td>
<td>Belinda, Dustin</td>
<td>Carina</td>
</tr>
<tr>
<td>Bed 4</td>
<td>Bed 4</td>
<td>Bed 5</td>
</tr>
<tr>
<td>Angela</td>
<td>Belinda, Dustin</td>
<td>Belinda, Dustin</td>
</tr>
<tr>
<td>Medical Isolation</td>
<td></td>
<td>New Hire: Daphne Torr</td>
</tr>
<tr>
<td><strong>Charge Nurse:</strong> Angela</td>
<td><strong>Physician:</strong> Dr. Gregory, Samuel, Rushton, MRP</td>
<td><strong>Physician:</strong> Dr. Haroun, Soayed, MRP</td>
</tr>
<tr>
<td><strong>Preceptors:</strong></td>
<td></td>
<td>contact</td>
</tr>
<tr>
<td>Bed 1</td>
<td>Bed 6</td>
<td>Bed 1</td>
</tr>
<tr>
<td>Vicky, Darlene</td>
<td>Heather</td>
<td>contact</td>
</tr>
<tr>
<td>Bed 2</td>
<td>Bed 7</td>
<td>Bed 2</td>
</tr>
<tr>
<td>Angela</td>
<td>Allison</td>
<td>Darlene</td>
</tr>
<tr>
<td>Physician: Dr. Sean Robinson, MRP</td>
<td>Contact</td>
<td></td>
</tr>
</tbody>
</table>
2015 Event

- Different Units: Isolation Unit
2015 Event: Artifacts

• Full Charts
2015 Event: Artifacts

- Narcotic Cart & Crash Cart
2015 Event: Artifacts

- Expanded Patients’ Ward
2015 Event: Artifacts

• Expanded Patients’ Ward
2015 Event: Artifacts

• Expanded Patients’ Ward
2015 Event: Artifacts

- Increased experience in Accountability and Shift Report
2015 Event: Scenarios

• **Patient scenarios**
  - Palliative Care, Lung Cancer, Death and Dying
    - One SP role-playing the patient
    - Two SPs role-playing the son and daughter
    - Difficulty accepting patient’s DNR wishes
    - Patient “expired”. Preparation of the body: an transformative experience
  - Pancreatitis
    - One SP role-playing the patient
    - One SP role-playing the difficult husband
    - Mistrust of healthcare team

• High fidelity Mannequin as Myocardial Infarction patient
  - Cardiac Arrest & Code Blue team response
  - Cardiac Resuscitation: Student nurses, preceptors, and medical students
  - Died on shift
2015 Event: Lessons Learned

1. Overall Success
2. With an increase in complexity, pacing of the event was not as efficient and effective (Heavy during the first hours of simulation event)
3. Requires commitment from staff and volunteers
4. Junior students make great volunteers as patients
   – Communication skills, affective approaches, and critical thinking can be learned by observing senior students
5. The more staff involved, the more it is to make time for planning and meetings
Future Plans

1. Support “On-call Night Shift Event” for McMaster School of Medicine, Brock University Campus

2. One 12 hour night shift event each year (based on Budget Approval & Human Resources)

3. Similar scope with attention to improving pace and flow

4. Include more IPE disciples:
   – Paramedic students
   – Social worker students
   – Security & Law Enforcement Students

5. Include Pre-Operative cases
   – (getting a patient ready for the OR)
Questions & Comments
References


References


References


