INNOVATION IN PUBLIC-HEALTH NURSING EDUCATION: A SURVEY OF STUDENT ACQUISITION OF CORE KNOWLEDGE AND COMPETENCIES

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Learner Objectives and Disclosure Statements

- **Learning Objectives**
  - Describe the process of facilitating student acquisition of core knowledge and competencies of public health nursing in a non-traditional clinical placement.
  - Discuss the methodology and findings from the survey of students related to their acquisition of the core competencies of public health nursing.

- **Disclosure Statements**
  - The authors have no conflict of interest.
  - The speakers are employed at Marymount University, Arlington, VA.
  - There was no sponsorship or commercial support for this research project.
Traditionally, baccalaureate nursing programs have partnered with public health departments and community health organizations to engage students in population-based practice.

A paradigm shift in the health care system and nursing education resulted in:

- Increased competition for clinical sites (Van Doren & Vander Werf, 2011)
- Decreased funding for health departments (Broussard, 2010)
- Fewer resources (PHNs) (Keller, et al., 2011)
Impetus for Change

- **External driving forces**
  - IOM (2011) challenged nursing to create innovative partnerships between practice and academia
  - Affordable Care Act (2010) increased the emphasis on health promotion and disease prevention

- **Opportunities for the development of non-traditional community/public health nursing clinical placements**
  - Expand the students’ view of community-based practice of nursing
  - Increase student engagement with diverse populations in non-traditional settings
The Essentials of Baccalaureate Nursing Education for Entry-Level Community Health Nursing Practice (ACHNE, 2009)

- Essential core knowledge for baccalaureate nursing education and entry-level community/public health (C/PHN) nursing practice
- Seminal framework for planning and implementing C/PHN curricula (Callen et al., 2013)

The Essentials were based on:

- A review of key documents informing public health nursing practice:
  - Essentials of Baccalaureate Education for Professional Nursing Practice (AACN, 2008)
  - Public Health Nursing Scope and Standards of Practice (ANA, 2007)
  - Quad Council PHN Competencies (Quad Council, 2004)
Health promotion and risk reduction
- Educate individuals, families, communities/populations about health issues
- Assess health risks of individuals, families, communities/populations
- Empower clients to improve health

Communication

Epidemiology and biostatistics

Community/population assessment

Information and health care technology

Environmental health

Illness and disease management

Human diversity

Ethics and social justice

Coordinator and manager

Community/population planning

Global health

Policy development

Assurance

Emergency preparedness, response and recovery
A University and Community Collaboration: Workplace Health Initiative

- **A regional community non-profit business**
  - Provides training and employment for individuals with disabilities or life challenges in the organization’s retail and contract settings

- **A national health insurance broker**
  - Contracted by the non-profit organization to provide guidance on employee health benefit decisions
  - Provided needs assessment data
  - Facilitated student orientation and engagement

- **Marymount University nursing students (N=52)**
  - Enrolled in a 15 week (96 hour) C/PHN clinical course
  - Partnered with organizations at 13 retail and 2 contract sites
  - Utilized the CDC Workplace Model (n.d.) for program development
Marymount University and Community Workplace Collaboration

**Major Concerns**
- Employees had numerous chronic diseases such as DM, renal disease, CHF
- High costs for health care
- Employees not participating in preventative care services
- Health care for the uninsured

**Program Objectives**
- Assist employees in establishing a medical home
- Assist employees in learning about and locating preventative health services
- Empower employees to navigate the health care system
- Provide quality, evidence-based health education
## Select Student Interventions

**Informed by the ACHNE Essentials (2009)**

<table>
<thead>
<tr>
<th>Public Health Intervention by Students</th>
<th>ACHNE Essential Core Knowledge Areas</th>
</tr>
</thead>
</table>
| Assessed the health needs of the population | III  Community/population assessment  
X  Environmental Health |
| Assisted employees in accessing and utilizing preventive and therapeutic health care services | VII  Illness and Disease Management  
XIV  Coordinator and Manager |
| Developed, implemented, and evaluated evidence based health education interventions | I  Communication  
VII  Health Promotion/Risk Reduction  
XIII  Human Diversity |
| Collaborated with a local non-profit business to support its mission and vision | XII  Ethics and Social Justice |
| Collected and aggregated outcome data | II  Epidemiology and Biostatistics  
IX  Information and Healthcare Technology |
Purpose of the Research Study

- Explore student perceptions of the acquisition of *Essential* core knowledge competencies gained through this non-traditional clinical learning experience.
- Evaluate student perceptions of the effectiveness of a collaborative partnership among a university, a not-for-profit organization, and an insurance broker on the health of employees.
Data Collection

- Study approved by Marymount University Institutional Review Board
- Investigator developed survey based on the *Essential* core competencies (ACHNE, 2009)
- Students (N=52) received an email invitation to participate in an electronic survey at the end of the semester
- Data collected 2012-2015
- n=25 participants (48% response rate)
Survey Methodology

- 32 item survey based upon 10 of the *Essential* core knowledge competencies and their associated basic competencies
  - Minor modifications in competency language
  - Students rated how influential this clinical experience was in facilitating knowledge and skill acquisition in select core knowledge areas
    - Likert scale
    - 5 points ranging from “1 - not influential” to “5 - extremely influential”
- Two qualitative questions:
  - What is your perception of the impact of the health promotion program on the health of employees of the organization?
  - In what ways do you think this experience will influence your future nursing practice?
Analysis

- **Standard descriptive statistics**
  - The grand mean was calculated for each of the 10 the *Essential* core knowledge areas
    - Ranked the highest and lowest *Essential* core knowledge areas
  - The means were calculated for the associated basic competencies
    - Ranked the highest and lowest associated competencies
- **Qualitative data** were examined to identify common themes in two open-ended questions
Results:
Acquisition of the *Essential Core Knowledge Competencies*

<table>
<thead>
<tr>
<th>Essential Core Competencies</th>
<th>Percentage of Students reporting the learning environment as “influential” to “very influential”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Diversity</td>
<td>96%</td>
</tr>
<tr>
<td>Health Promotion/Risk Reduction</td>
<td>91%</td>
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<tr>
<td>Communication</td>
<td>89%</td>
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<tr>
<td>Coordinator and Manager</td>
<td>87%</td>
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<tr>
<td>Epidemiology</td>
<td>83%</td>
</tr>
<tr>
<td>Information/Healthcare Technology</td>
<td>80%</td>
</tr>
<tr>
<td>Ethics/Social Justice</td>
<td>79%</td>
</tr>
<tr>
<td>Community/Population Assessment</td>
<td>79%</td>
</tr>
<tr>
<td>Illness/Disease Management</td>
<td>76%</td>
</tr>
<tr>
<td>Environmental Health</td>
<td>71%</td>
</tr>
</tbody>
</table>
## Results:

### Associated Basic Competency Acquisition

<table>
<thead>
<tr>
<th>Highest Means</th>
<th>Lowest Means</th>
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<tr>
<td>Demonstrate respect for people with differing values, behaviors, lifestyles</td>
<td>Foster an environment in which healthy lifestyles can be practiced</td>
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<tr>
<td>Recognize the impact of discrimination on health</td>
<td>Integrate knowledge of appropriate developmental theories into planning interventions</td>
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<tr>
<td>Educate individuals, families, communities/populations about health issues</td>
<td>Recognize environmental justice that ensures protection from environmental hazards</td>
</tr>
<tr>
<td>Empower clients to improve health</td>
<td>Use the CDC Workplace Model as a basis of assessment</td>
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<tr>
<td>Communicating with clients of differing health literacy</td>
<td></td>
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<tr>
<td>Assess the health needs and assets of communities/populations</td>
<td></td>
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<tr>
<td>Assess health risks of individuals, families, communities/populations</td>
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<tr>
<td>Use ethical problem solving to address dilemmas of care</td>
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Qualitative Themes

- **Effectiveness of program**
  - Client empowerment
  - Importance of building supportive work environments

- **Influence on future nursing practice**
  - Thinking beyond hospital setting
  - Thinking holistically and globally
  - Awareness of lack of resources for those who are uninsured
  - Better understanding of the need for public health services and resources for the underserved
Discussion of Highest Ranked Competencies

1. Human Diversity (96%)
   - Highest means for associated basic competencies:
     - The impact of discrimination on health
     - The opportunity to demonstrate respect for people with differing values, behaviors and lifestyles

2. Health Promotion Risk Reduction (91%)
   - Highest means for associated basic competencies:
     - Educate individuals, families, communities/populations about health issues
     - Empowers clients to improve health

3. Communication (89%)
   - Highest means for associated basic competencies:
     - Communicating with clients of differing health literacy
Discussion of Lowest Ranked Competencies

1. Environmental Health (71%)
   - Recognize environmental justice that ensures protection from environmental hazards

2. Illness/Disease Management (76%)
   - Integrate knowledge of appropriate developmental theories into planning interventions

3. Community/Population Assessment (79%)
   - Use of CDC Workplace Model (n.d.) as a basis of assessment
Interpretation of Data

- **High Rankings**
  - The success of the student-driven interventions primarily focused on:
    - Assessment of individual worker health risks
    - Health education activities
    - Employee empowerment
    - Health care navigation

- **Lower rankings**
  - Student perceptions of their own power limited facilitating environmental/systems changes
  - Students may have misinterpreted meaning of the developmental theory competency
  - Emphasis on use of CDC model decreased over time due to changes in clinical faculty
Limitations

- Sample size
- Investigator designed survey tool
- Survey focused on 10 of 15 *Essential* core knowledge competencies and related basic competencies
- Timing of the survey
- Change in faculty
Conclusions

- Findings support the benefits of this non-traditional placement
- Participants perceived the ability to acquire generalist public health nursing competencies
- The Essentials of Baccalaureate Nursing Education for Entry-level Community/Public Health Nursing (ACHNE, 2009) serves as a useful tool for:
  - Student assessment of competency acquisition
  - Guiding the development of innovative partnerships in non-traditional educational settings
  - Evaluating the appropriateness of C/PHN clinical education settings
- Future research
  - Comparison of competency acquisition in traditional and non-traditional clinical education settings
References


