Advancing and Standardizing New Nurse Graduate Education: Implementing a Statewide Nurse Residency Collaborative (C726)

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We have no conflicts of interest to declare!!

Objective

- Describe the process used to develop a statewide collaborative for nurse residencies
- List the challenges and benefits of a statewide implementation of nurse residencies
- Analyze the process steps used in the Maryland Collaborative and consider their use in other states
- Discuss outcome data about implementation of the statewide initiative
- Discuss future directions
Background

- Maryland Regional Action Coalition formed in 2011
- Established subcommittee on *Implementing Nurse Residencies in Maryland*
  - Goal – Implement Nurse Residencies in acute care hospitals throughout Maryland
  - Standardized, validated program
  - Standardized metrics for outcome measurement

Background Cont..

- Positive impacts of Nurse Residency Program (NRP)
  - Eases transition for new graduates
  - Increases confidence levels (Olson-stiki et al., 2012)
  - Enhances critical thinking and clinical decision making skills (Al-Dossary et al., 2014)
  - Reduces turnover rates and thereby increases new graduate retention rates (Trepenier et al., 2012, Manzano 2014 and Goode et al., 2013)
  - Major cost savings!!

Background Cont..

- Standardization of Nurse Residency Programs is needed (Anderson 2012 and Olson-Stiki, 2012)
Nurse Residency Model

- Structure
  - Engaged state-wide stakeholders including academicians, hospital nursing leaders and non-nursing leaders
  - State-wide NRP collaborative formed under the auspices of the Maryland Organization of Nurse Executives (MONE)

Next slide:

IOM Report
First contract signed
Collaborative’s first cohort started

- March 2010
- Sept 2011
- March 2013
- June 2013
- July 2013

Summit at UMB SON
Hospital Coordinator training
Benefits of NRP Collaborative

- Access to a standardized curriculum and training materials, as well as inclusion in a national database
- Monthly Collaborative meetings (online and face-to-face) led by Coordinator to share best practices
- Supports Regional Action Coalition & state-wide hospital funding by Health Services Cost Review Commission

Funding for NRP Collaborative

- Funds apportioned through the Health Services Cost Review Commission (HSCRC) via the Nurse Support Program 1 (NSP 1) Grant
  - HSCRC: Independent MD state agency responsible for setting and regulating hospital rates for all payers
  - NSP 1: Hospital grant to increase the number of bedside nurses
    - Most recent 5-year renewal began in FY 2014
NRP Collaborative Outcome Evaluation

NRP Outcome Evaluation

- NRP and program cohort metrics collected by HSCRC to evaluate outcomes
- Information gained will be used to support continued statewide funding and expansion of nurse residency programs

Specific Aim

- To evaluate statewide program effectiveness of implementation of the standardized NRP program through the examination of pre and post outcome data including
  - nurse resident outcomes,
  - retention rates,
  - program costs,
  - and other associated metrics
**Study Design**

- IRB Exempt
- Non-experimental, descriptive, cross-sectional, survey design
  - Baseline data collected via an online survey from all hospitals in the state about their NRP
  - Annual reporting of data to HSCRC
  - UHC/AACN NRP data collection

**Sampling Frame and Procedures**

- 49 acute care hospitals in MD invited to participate
- MONE group list, hospital websites and other Maryland hospital organization websites used to locate hospitals to participate in the survey
- A self-administered Web questionnaire was sent to each participant at the 49 hospitals
- HSCRC encouraged participation

**Data Analysis**

- Data analyzed using SPSS 22.0.
- Descriptive statistics, Pearson r correlations, and non-parametric statistics used to analyze categorical and ordinal data
- Significance level of p-value <0.05 used for all comparisons
Results–Demographics

- 78% acute care hospitals competed the survey (N = 38/49)

Types of Hospitals (n=38)

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>17 (44.7)</td>
</tr>
<tr>
<td>Suburban</td>
<td>15 (39.5)</td>
</tr>
<tr>
<td>Rural</td>
<td>6 (15.8)</td>
</tr>
<tr>
<td>Teaching</td>
<td>20 (52.6)</td>
</tr>
<tr>
<td>Non Teaching</td>
<td>15 (39.5)</td>
</tr>
<tr>
<td>Missing</td>
<td>3 (52.6)</td>
</tr>
<tr>
<td>Academic</td>
<td>6 (15.8)</td>
</tr>
<tr>
<td>Community</td>
<td>30 (78.9)</td>
</tr>
<tr>
<td>Missing</td>
<td>2 (5.3)</td>
</tr>
<tr>
<td>Government Affiliated</td>
<td>1 (3)</td>
</tr>
<tr>
<td>Non Government</td>
<td>37 (97)</td>
</tr>
<tr>
<td>Multisystem</td>
<td>26 (68.4)</td>
</tr>
<tr>
<td>Non Multisystem</td>
<td>10 (26.3)</td>
</tr>
<tr>
<td>Missing</td>
<td>2 (5.3)</td>
</tr>
</tbody>
</table>

Magnet Recognition

<table>
<thead>
<tr>
<th>Status</th>
<th>Hospitals (n = 38)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No plan to pursue Magnet/ Pathway Designation</td>
<td>15 (39.5)</td>
</tr>
<tr>
<td>On the journey to Magnet/ Pathway Designation</td>
<td>15 (39.5)</td>
</tr>
<tr>
<td>Magnet/ Pathway Designated Facility</td>
<td>8 (21)</td>
</tr>
</tbody>
</table>
Relation between Nurse Residency Programs and Use of NSP Grant Funds

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Nurse Residency Program</th>
<th>NSP Grant Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Offered</td>
<td>Not Offered</td>
</tr>
<tr>
<td>2013</td>
<td>21 (51)</td>
<td>11 (32)</td>
</tr>
<tr>
<td>2014</td>
<td>31 (81)</td>
<td>6 (16)</td>
</tr>
</tbody>
</table>

Nurse Residency Programs

- No difference in new RN retention rate for hospitals offering NRP’s compared to those not, for any of the 3 FYs
- Being a member of a collaborative in FY 2014 increased the likelihood of involuntary termination (Fischer’s Exact = 13.92, p < .001)

Statewide New Graduate Hire and Retention Data

<table>
<thead>
<tr>
<th>Measure</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of New Graduates Hired</td>
<td>1547</td>
<td>1420</td>
<td>1317</td>
</tr>
<tr>
<td>Total Number Left Within 1 year</td>
<td>131 (8.5)</td>
<td>142 (10)</td>
<td>114 (8.7)</td>
</tr>
<tr>
<td>Left Voluntarily</td>
<td>95 (6.1)</td>
<td>99 (6.9)</td>
<td>68 (5.2)</td>
</tr>
<tr>
<td>Left Involuntarily</td>
<td>22 (1.4)</td>
<td>45 (3.2)</td>
<td>40 (3)</td>
</tr>
</tbody>
</table>
### Nurse Retention by Maryland NRP Collaborative for FY 2012–2014

<table>
<thead>
<tr>
<th>Status</th>
<th>Fiscal Year 2012</th>
<th></th>
<th>Fiscal Year 2015</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Residency Offered</td>
<td>1144</td>
<td>62(83%)</td>
<td>13(17%)</td>
<td>31(13%)</td>
</tr>
<tr>
<td>No Residency Offered</td>
<td>403</td>
<td>33(79%)</td>
<td>9(21%)</td>
<td>12(18%)</td>
</tr>
</tbody>
</table>

*Note: frequency of termination is frequency of involuntary versus voluntary termination of persons leaving within one-year.*

### Nurse Retention by Nurse Residency Offered for FY 2012–2014

<table>
<thead>
<tr>
<th>Status</th>
<th>Fiscal Year 2012</th>
<th></th>
<th>Fiscal Year 2015</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Residency Offered</td>
<td>1040</td>
<td>74(69%)</td>
<td>33(31%)</td>
<td>32(35%)</td>
</tr>
<tr>
<td>No Residency Offered</td>
<td>374</td>
<td>22(65%)</td>
<td>12(35%)</td>
<td>9(21%)</td>
</tr>
</tbody>
</table>

*Note: frequency of termination is frequency of involuntary versus voluntary termination of persons leaving within one-year.*

### First Year Data – Calendar Year 2014

**Number of New Graduates:**

- 1002
  - CNL (MS): 4%
  - Accel BSN: 14%
  - BSN: 56%
  - AD: 25%

**Units of Hire:**

- Adult critical care: 27.4%
- Telemetry: 9.4%
- General Medical: 8.7%
- Emergency Dept: 8.1%
- Mixed Med/Surg: 7.4%
Terminations – Reasons

- Unsatisfactory performance 33.3%
- Unhappy with job/facility 31%
- Locating out of area 21.4%

Discussion

- Contractual agreements influence 1 year retention rates—need to monitor employment for greater than 1 year
- Influence of health care economy on job availability
- Employers raising hiring standards for new graduate hires

Implementation Challenges

- Hospitals with homegrown programs resistant to change
- Variability in NRP cohort sizes—too large or too small prove to be problematic
- Shift of RN employment to outpatient or other settings (i.e., public health, schools)
- Sustainability of the Maryland NRP Collaborative
Future Directions

- Offering of college credit for NRP
  - ADN, BSN, and MS
- NRP Model among smaller hospitals (sharing of resources)
- Model for New Graduate Residencies in non-acute care settings
- Two tier RN licensure

References

5. Goode CJ, Lynn MR, McElroy D, Bednash GD, and Murray B. Lessons learned from 10 years of research on a post-baccalaureate nurse residency program. JONA. 2012;43(3):137-144.

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