Evaluating the Short- and Long-Term Outcomes of a Hospital-Based Nurse Residency Program: Findings of a Retrospective Study, 2005-2012

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At end of session participants will be able to:

- Relate the History and Purpose of Nurse Residency Programs
- Identify the Program Components of the AACN/UHC Model
- Explain the methodology of the longitudinal, retrospective evaluation of the NYULMC program
- Describe key findings of the NYULMC evaluation study of 8 cohorts of Nurse Residents
History of Nurse Residency Programs (NRPs)

NRPs designed to

- Stem attrition of newly licensed nurses with first year of employment
- Provide support for new RNs to transition from novice to competent practitioner
- Address the challenges of contemporary hospital environment
- Strengthen commitment to nursing profession
Images of New Graduates
Then and Now

1963

2016
Standardizing NRP Curriculum

• In 2002, AACN/UHC launched a standardized curriculum for a NRP for baccalaureate prepared RNs.

• Approximately 140 hospitals have adopted the AACN/UHC model, including NYULMC.

• Other models exist for new RNs in AD programs, community hospitals & other settings.
Snapshot of AACN/UHC Model
One year post BSN program

Goals:
- Transition From Novice to Competent RN
- Increase Decision Making Skills
- Master Clinical Leadership/Autonomy
- Incorporate Evidence Based Practices
- Strengthen Commitment to Nursing

Program components
- Seminars on varied, contemporary issues
- Unit-based EBP Project
- Clinical Education
- Ongoing Senior Staff Support
- Interact with other NRs in cohort

IOM study recommends:
“Implement nurse residency programs. State boards of nursing, accrediting bodies, the federal government, and health care organizations should take action to support nurses’ completion of a transition-to-practice program (nurse residency) after they have completed a pre-licensure or advanced practice degree program or when they are transitioning into new clinical areas.

....health care organization....should evaluate the effectiveness of their programs in improving retention, expanding competencies and improving outcomes.”

IOM, 2010
Review of Research Literature on NRPs

• Majority is characterized as “program development” of institution-specific programs (Letournea & Fater, 2015)
• Most hospitals with NPR have “facility based program”, 22% AACN/UHC model, 24% other model like Versant (Barnett, Minnick & Norman, 2014).
• Systematic review of interventions to improve transitions of new RNs found any support strategy has positive impact (Edwards, et al 2015).
• Sufficient evidence exists that NRPs improve retention rates within first year of employment (Goode, et al, 2013; Fiedler, et al 2014)
How this Evaluation Contributes to Literature on NRPs

• Few studies examine impact of NRP beyond first year of employment.
• This longitudinal, retrospective study is first to:
  - Examine impact of NRP over eight different cohorts (2005-2012)
  - Obtain data directly from former NRs as to the value of the program on their current practices
  - Compare stayers and leavers
Nursing at NYULMC

Nursing Workforce
• 95.5% at least BSN
• Median age: 34 (range 21-73)
• Average # of years: 7.9 (range 0-45)
• 91.4% Female
• 82.3% Full-time

Nurse Residency Program
• All newly licensed BSN-prepared
• Several groups per year
• Approximately 1/3 graduates of NYU CON
• Designed and Launched institution-specific model: 1996
• Adopted AACN/UHC model: 2002
Evaluation Design

• Launched two-phase longitudinal, retrospective evaluation in 2013
• 8 cohorts, 2005-2012
  
  Phase I: Former NRs still employed at NYULMC in Fall 2013 (stayers)
  Phase II: Former NRs who had left prior to Fall 2014 (leavers)
Data Sources

- AACN/UHC Archived Dataset
- NYULMC Human Resources Data
- Residency Program Documents
- On-line survey (Qualtrics)
  - Demographic characteristics
  - Employment characteristics
  - Educational and professional accomplishments since completing NRP
  - Assessment of the components of the NRP on their current practice
  - Additional questions to “leavers” about reasons for leaving
Methodology

Stayers

• Obtained list from HR
  - Date of hire as staff RN and still employed at NYULMC in Fall 2013
  - Current email address

• NRP documents

Reconstructed cohorts

• Anonymous Online Survey: One month data collection, Fall 2013

• Incentives: Gift cards

Leavers

• Obtained list from HR
  - Date of hire as staff RN/Date of departure prior to Fall 2014
  - Confirmed/updated last known contact

• Confidential On-line Survey: One month data collection, Fall 2014

• Incentives: Drawing of three $100 Amazon gift cards

BOTH PHASES IRB APPROVED
Measures

Retention
• Complete NRP/First Year of Employment
• Continued employment beyond NRP year

Commitment to nursing: Professional Accomplishments
• Certifications
• Additional education (e.g. NP/Master’s)
• Conference Presentation/Publications
• Participation in professional associations

Assessment of NRP goals and program components
## Study Summary

### Former NRs at NYULMC

<table>
<thead>
<tr>
<th>Cohorts (2005-2012)</th>
<th>Total / Range across cohorts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total # NRs</td>
<td>1085</td>
</tr>
<tr>
<td>Cohort size (average/range)</td>
<td>123.4/100-146</td>
</tr>
<tr>
<td>Completed NRP</td>
<td>987</td>
</tr>
<tr>
<td>NRP Completion rate (%)</td>
<td>90.5/ 85.1 - 97.2%</td>
</tr>
<tr>
<td>Number Retained (Fall 2013)</td>
<td>646</td>
</tr>
<tr>
<td>Retention Rate</td>
<td>63.5% / 48.9 – 95.6%</td>
</tr>
<tr>
<td>Number Phase I Surveys Received</td>
<td>425</td>
</tr>
<tr>
<td>Response Rate Phase I</td>
<td>65.8%</td>
</tr>
<tr>
<td>Number Phase II Surveys Received*</td>
<td>108</td>
</tr>
<tr>
<td>Response Rate Phase II</td>
<td>62.4%</td>
</tr>
</tbody>
</table>

* Total of 179 “leavers” had current email/telephone

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### Respondent Profiles: Phase I and II

#### Demographic and Employment Profile of Respondents

<table>
<thead>
<tr>
<th>Category</th>
<th>Phase I</th>
<th>Phase II</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mean Age at Hire</strong></td>
<td>26.28</td>
<td>26.73</td>
</tr>
<tr>
<td><strong>Tenure at NYULMC</strong></td>
<td>4.86</td>
<td>2.18</td>
</tr>
<tr>
<td><strong>Female</strong></td>
<td>91.9%</td>
<td>97.1%</td>
</tr>
<tr>
<td><strong>Hispanic/Latino</strong></td>
<td>6.5%</td>
<td>5.7%</td>
</tr>
<tr>
<td><strong>Nonwhite</strong></td>
<td>32.7%</td>
<td>19.8%</td>
</tr>
<tr>
<td><strong>Never married</strong></td>
<td>51.4%</td>
<td>33.3%</td>
</tr>
<tr>
<td><strong>Children</strong></td>
<td>25.5%</td>
<td>41.9%</td>
</tr>
<tr>
<td><strong>Inpatient</strong></td>
<td>100.0%</td>
<td>58.2%</td>
</tr>
<tr>
<td><strong>Nurse Practitioner/Midwife</strong></td>
<td>3.5%</td>
<td>26.3%</td>
</tr>
<tr>
<td><strong>Management/Administration</strong></td>
<td>23.2%</td>
<td>10.1%</td>
</tr>
<tr>
<td><strong>Completed Additional Degrees</strong></td>
<td>16.6%</td>
<td>48.1%</td>
</tr>
<tr>
<td><strong>Any Professional Accomplishment</strong></td>
<td>22.0%</td>
<td>21.0%</td>
</tr>
<tr>
<td><strong>2 or more Professional Accomplishments</strong></td>
<td>5.7%</td>
<td>8.6%</td>
</tr>
<tr>
<td><strong>Active Professional Organization</strong></td>
<td>57.2%</td>
<td>54.6%</td>
</tr>
<tr>
<td><strong>Any Specialty Certification</strong></td>
<td>47.2%</td>
<td>50.0%</td>
</tr>
<tr>
<td><strong>Current Employer</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>- <strong>Magnet Status</strong></td>
<td>100.0%</td>
<td>23.5%</td>
</tr>
<tr>
<td>- <strong>Residency Program</strong></td>
<td>100.0%</td>
<td>24.6%</td>
</tr>
<tr>
<td><strong>Commute Time</strong></td>
<td>2.4</td>
<td>1.8%</td>
</tr>
</tbody>
</table>

*P ≤ .05  \( ^a \)  \( ^b \)  \( ^c \)  \( ^P ≤ .01 \)  \( ^P ≤ .001 \)

*1 = Less than 20 minutes; 2 = Between 21-45 minutes; 3 = Between 45 minutes and an hour; 4 = Over an hour
Primary Reasons For Leaving

- 47.1% “moved to other geographic location”
  - Borne out by data: 46.4% have left NY
- 33.3% dissatisfied/wanted specialty not offered at NYULMC
  - Seen in variations in NP certification
  - Observed in size of group working in ambulatory and other setting
- Other: educational opportunities, family obligations
Assessment of Program
Goals & Objectives: Measures

Two items per NRP goal and component

• How would you rate each from vantage of current position? (Likert scale)

• If you can to select the single most important, which would you choose?

Overall Assessment:

• If new grad could choose NRP or more money/benefits, what would you recommend?
Positive Assessments of NRP Goals among Former All NRs*, 2005-2012

Transition From Novice to Expert: 45.20%
Decision Making Skills: 38.70%
Clinical Leadership Autonomy: 34.70%
Strengthen Commitment Nursing: 37.10%
Incorporate EBP: 35.50%

* Stayers and Leavers

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Positive Assessments of NRP Components among All Former NRs*, 2005-2012

- Seminars: 27.40%
- EBP Project: 19.40%
- Clinical Education: 54.80%
- Senior Staff Support: 71.70%
- Interact With RNs: 52.30%

* Stayers and Leavers

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NR Assessment of Program: Additional Findings

- Consistent pattern among stayers & leavers across all cohorts
- Positive perception of value of EBP increases significantly over time
- Large Majority (3/4) would recommend NRP over higher salary/benefits
Impact of Time on Program Outcomes Among All Former NRs*

- **Number of years since completing NRP is a stronger predictor**
- Positive attitudes about NRP sustained over time
- Key lesson learned: Many outcomes emerge only with benefit of time

* Stayers and Leavers
Unresolved Issues

• Without control group can not tie outcomes to the NRP
• Competitive nature of employment in AMC may attract ambitious/motivated BSN grads
• Professional accomplishments: the result of NRP or other institutional/workforce factors?
Conclusions and Recommendations

- Persuasive evidence that NRPs result in improved retention
- Sufficient evidence that any type of support improves new RN perceptions and attitudes
- Former NRs most valued support from leadership, clinical education experiences and opportunities to network with other NRs
- Former NRs rate requirements for EBP projects and Seminars as least valuable
- Additional unit-specific clinical training was frequent recommendation by former NRs
- IOM endorses transitional period similar to internships for new MDs to produce competent and stable workforce
- Greater advocacy & policy needed to ensuring that all new RNs receive support of transitional year
Selected References


Edwards, D; Hawker, C; Carrier, J; Rees, C The effectiveness of strategies and interventions that aim to assist the transition from student to newly qualified nurse, *International Journal of Evidence-Based Healthcare*, 2011; 7(3) :286


