Fuld Fellows Leadership Program Advances Patient Safety
Competence and Systems Thinking in Pre-licensure Nursing Students

Cheryl R. Dennison Himmelfarb,
Yvonne Commodore-Mensah, Ellen M. Ray,
Jo Walrath, Brigit VanGraafeiland

Johns Hopkins School of Nursing;
Armstrong Institute for Patient Safety and Quality

The Helene Fuld Leadership Program for the Advancement of Patient Care Quality and Safety (“The Fuld Fellows Leadership Program”) is funded by TheHelene Fuld Health Trust
Learner Objectives

• Describe the beneficial outcomes of a curriculum designed to building capacity in patient safety and quality leadership among pre-licensure nurses.

• Identify the competencies and skills needed to participate in patient safety improvement efforts.
Background

• In 2010, the IOM report *The Future of Nursing: Leading Change, Advancing Health* called for nursing education to include development of leadership, teamwork and communication, quality care and system improvement competencies.

• In response, we developed an innovative curriculum for baccalaureate nursing students designed to advance nurse leadership in patient safety and healthcare quality.
Curriculum Innovation

• Program provides selected nursing students with a solid foundation in the science of patient safety, quality improvement (QI) and leadership skills.

• Program consists of:
  - 4 courses threaded throughout the Baccalaureate curriculum
  - 6-month, service-learning project
  - 3-day interprofessional intercession course
  - Stipends for fellows and mentors
Course 1

- Blended course
- Applies a systems approach introducing Fuld Fellows to the science of patient safety and QI
- Using case studies, case-based quizzes and peer assessments, the course prepares fellows with basic knowledge and skills necessary for their work with a clinical project team
Courses 2-3

- Blended courses
- Local expert guest lectures
- Bi-weekly, online reflective learning journals focusing on specific attributes of safe, high reliability healthcare delivery teams
- Fellows work 50-hours per semester with a mentor and interdisciplinary, patient safety or QI team in a Johns Hopkins clinical setting
Course 4

- Fully on-line course
- Case-based and discussion board exercises focus on application of patient safety, QI, and leadership knowledge and skills developed in courses 1-3
- Fellows create a scholarly poster presentation and disseminate their project-based learning
3-day Interprofessional Intercession Course

- Nursing and medical students taught by interprofessional faculty
- Addresses the causes of preventable harm and evidence-based strategies for harm prevention
- Focuses on improving students’ teamwork and communication skills and system-based thinking
Timeline

Cohort 1: June 2012-July 2013
Cohort 2: September 2012-December 2013
Cohort 3: June 2013-July 2014
Cohort 4: September 2013-December 2014
Cohort 5: June 2014-July 2015
Cohort 6: September 2014-December 2015
Cohort 7: June 2015-July 2016

Semester 1
Science of safety, systems approach

Semester 2-3
6-month mentored service-learning project

Intercession
IPE, teamwork / communication skills, system-based thinking

Semester 4
Application and dissemination of project-based learning
Program Evaluation

- Process evaluation includes specific questions about course content, delivery, and attainment of learning goals for each course and at end of program, as well as project mentor / mentee evaluation of one another.

- Pre-post program evaluation includes fellows’ perceptions of patient safety competence at entry into practice, using the Health Professional Education in Patient Safety Survey (H-PEPSS), and systems thinking, using the Systems Thinking Scale (STS).

- Pre- and post-program scores for the H-PEPSS subscales and STS were compared using the Wilcoxon Signed-Rank Test.
Systems Thinking

The bar chart shows the STS Score for different cohorts before and after the program. The p-values indicate the significance of the changes:

- Cohort I: p<0.003
- Cohort III: p<0.04
- Cohort IV: p<0.39

The bars represent the STS Score, with light blue for Pre-Program and dark blue for Post-Program.
Patient Safety Competence at Entry into Practice

Cohort II

Cohort III

Cohort IV

HPEPPS Score

p<0.05 for all
## Mentor-Mentee Evaluations

<table>
<thead>
<tr>
<th>Fellow Responses (Cohorts I-IV)</th>
<th>Mentor Responses (Cohorts I-IV)</th>
</tr>
</thead>
<tbody>
<tr>
<td>My mentor fostered my professional development</td>
<td>Agreed / Strongly Agreed, %</td>
</tr>
<tr>
<td>Participating in this project was mutually rewarding to the mentor and me</td>
<td>Experience was satisfying</td>
</tr>
<tr>
<td>I consider that my mentor-mentee relationship was successful</td>
<td>Successful in actively involving students in their project</td>
</tr>
<tr>
<td>My mentor and I worked towards a common goal</td>
<td>Progress in meeting the agreed upon project activities meets my expectations</td>
</tr>
<tr>
<td>87%</td>
<td>91%</td>
</tr>
<tr>
<td>82%</td>
<td>85%</td>
</tr>
<tr>
<td>90%</td>
<td>92%</td>
</tr>
<tr>
<td>89%</td>
<td>93%</td>
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</tbody>
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Conclusion

• This innovative program is effective in facilitating learning and application of the patient safety champion role among pre-licensure nursing students.

• Fellows’ patient safety competence and systems thinking increased to high levels (or improved) after participation in the program, leaving them well-equipped as future leaders of patient safety and QI initiatives.

• This program can serve as a model for integrating quality and safety concepts into nursing curriculum.