Dedicated Education Units and Traditional Units: A Comparison of Learning Outcomes

Deborah A. Raines, PhD, EdS, RN, ANEF, FAAN
Buffalo, NY
deborah.raines.phd@gmail.com
No conflicts of interest to disclose
This study was approved by the IRB
The **BIG** Questions

- What is the focus of clinical learning... knowledge, skills, attitude?
- What is a quality clinical learning experience for undergraduate nursing students?
- How is learning measured?
- How do we *better* prepare nurses to deliver high-quality care?
- Does the DEU increase student learning?
Definitions

DEU

Faculty member

RN + Student → Patient assignment

Traditional

Student

Faculty

RN + Student → Patient assignment

RN + Student → Patient assignment

RN + Student → Patient assignment

Student

Patient

Patient

Patient

Patient

RNs
Nurse as teacher

• Caring for a patient while caring for an assignment of patients

• What is the goal for the day

• Hand-on learning, engaged and active

“Not the same old way with a shift in responsibility but something new and different”
Study Purpose:

- to evaluate student confidence in performing nursing role responsibilities
- to measure student self-perceived learning of specific nursing skills

...during a clinical learning experience.
• Quasi-experimental study using a pre-test/post-test survey design.
• Students randomly assigned to a clinical setting.
• Students completed a survey to measure level of role and skill performance before and after the clinical rotation.
• A total of 96 students, 48 in a DEU and 48 in a traditional unit, completed both surveys.
• The survey - Casey-Fink Nursing Student Transition Survey and 15 Likert scale items focused on self-perceived comfort in performing specific nursing skills and procedures.
• Two items collected data on the participant’s prior work experience in health care and their desire to work in this setting after graduation.
## Skill Performance Items

<table>
<thead>
<tr>
<th>Basic adult skills</th>
<th>Course specific skills</th>
<th>Maternal-Newborn Nursing Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. AM care (beds, baths, dressing)</td>
<td>6. IV medications</td>
<td>9. Apply fetal monitor</td>
</tr>
<tr>
<td>4. Injections/adult</td>
<td></td>
<td>12. Oral medications/neonate</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14. Complete postpartum assessment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15. Assist during a birth (pushing, positioning, EFM management)</td>
</tr>
</tbody>
</table>
**Results:**

Skill performance scale: 1-very uncomfortable performing by myself to 5-very comfortable performing by myself

**Before clinical:**  
*Basic adult skills:*
- Range 1 → 5
- Mean: 2.3 (traditional), 2.4 (DEU)
- Not performed: oral med admin, injections, BG monitoring

No difference between groups

**After clinical:**  
*Basic Adult skills:*
- **DEU:** Range 2 → 5
- **Traditional:** Range 1 → 5
- Not performed: oral med admin, injections, BG monitoring

Traditional group only.
Results:

Skill performance scale: 1-very uncomfortable performing by myself to 5-very comfortable performing by myself

Before clinical:  
*Course Specific skills:*
Range 1 → 3
Not performed: by over 90% of students

No difference between groups

After clinical:  
*Course Specific skills: (IV & catheter insertion)*

**DEU:**
Range 3→ 5

**Traditional:**
Range 1→ 4

Not performed:

**Traditional group:** Catheter: 90%
IV: 75%

**DEU group:** Catheter: 50%
IV: 0%
Results:

Skill performance scale: 1-very uncomfortable performing by myself to 5-very comfortable performing by myself

Before clinical: Maternal-Newborn care skills:
Range 1 → 2
Not performed: by over 97% of students
No difference between groups

After clinical: Maternal-Newborn care skills:
DEU: Range 2→ 5
Traditional: Range 1→ 3
Not performed:
Traditional group: fetal monitor* 98%
Neo meds/inj* 100%
Assist births* 98%

DEU

group: none
Before clinical: Confidence nursing role responsibilities
**No difference between groups**

After clinical: Confidence nursing role responsibilities

**DEU:** Greatest change in:
- Organization/priority setting
- Communicating with physicians/midwives
- Thinking vs doing

**Results:**
Findings:

Students in the DEU:

• performed a greater number of skills,
• reported a higher level of comfort/confidence in skill performance
• demonstrated a greater magnitude of change in nursing role responsibilities
Next Steps:

Benchmarking Project

- Does a DEU experience impact the transition from student to RN?
Thank you for your time...

...questions?

deborah.raines.phd@gmail.com