Student Perceptions, Experiences, and Outcomes in Two Studies of Precepted and Traditional Clinical Learning Environments

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Significance

- Schools of nursing are compelled to transform clinical education to prepare graduates for dynamic practice environments.
- Traditional clinical models have been called into question by educators.
- Previous clinical model comparison research used a single site with small samples.
Purpose of the Comparative Analysis

• Discuss the strengths and challenges associated with assessment of innovative and traditional clinical learning.
• Compare and contrast findings from two studies of precepted vs. traditional clinical models:
  – Student practice opportunities
  – Satisfaction with the learning experience
  – Learning outcomes on standardized measures
  – Student qualitative themes
Definitions of Clinical Learning Environments

- **Traditional:** A physically present faculty member directly supervises a group of 5 to 10 students.

- **IUK Precepted Model:** A faculty member meets with students and preceptors during their shifts which may include weekdays, evenings, nights, and weekends. Faculty member on-call when students in clinical.

- **IUPUI Practice-Education Partnership (PEP):** A faculty member spends a portion of each clinical day mentoring 5 to 10 staff nurse preceptors who each directly supervise 1 to 2 students during a 12-hour day shift clinical. Faculty on-call if not present.

- **IUPUI Hybrid:** A physically present faculty member directly supervises a portion of the student group while mentoring 1-3 staff nurse preceptors who each supervise 1 to 2 students.
Comparison of Key Features of Clinical Models Across Studies

IUK’s Precepted Model

- Cohort of up to 10 students with one faculty in one health care organization across multiple clinical courses.
- At the time of the study there were 2 precepted cohorts.
- Each student has one experienced RN preceptor for a clinical course, then changes to other preceptors and units for subsequent courses.

IUPUI’s (DEU) PEP Model

- Each student in a group of 10 has one RN preceptor for a clinical course.
- Faculty primarily teach in one clinical course.
- At the time of the study, there were 12 acute care PEP units in 5 health care organizations.
- Students may have experiences in several health care organizations over 3 years.
Comparison of Key Features of Clinical Models Across Studies con’t.

IUK’s Precepted Model

• Students are competitively chosen by faculty for participation.
• Faculty meet with students and preceptors on their shifts.
• Faculty facilitate post-conference in person or asynchronously or synchronously on-line each week.

IUPUI’s (DEU) PEP Model

• Students select whether to participate in the DEU (PEP) model and at which site for each clinical course.
• PEP faculty are present for a significant part of each clinical day and mentor the staff nurse preceptors.
• Faculty meet with each student either individually and/or as a group during the shift.
Comparison of Study Designs

IUK’s Study

• **Design:** Quasi-experimental mixed method study of traditional vs. precepted models.
• Data collected at 3 time points
• **Quantitative data collection:**
  – SECEE (Sand-Jecklin, 1998)
  – Self-reported skill performance frequency over a semester
  – ATI Integrated testing scores

IUPUI’s Study

• **Design:** Quasi-experimental mixed method study of traditional, PEP, and hybrid models
• Data collected once
• **Quantitative data collection:**
  – SECEE (Sand-Jecklin, 1998)
  – Self-reported skill performance frequency over a 6 week clinical experience
  – Kaplan Integrated testing scores
Comparison of Study Designs cont.

**IUK’s Study**
- Qualitative approach:
  - Opened ended survey questions to elicit student perceptions of:
    - Satisfiers
    - Suggestions
    - Other relevant comments

**IUPUI’s Study**
- Qualitative approach:
  - Opened ended survey questions to elicit student perceptions of:
    - Satisfiers
    - Suggestions for improvement
    - Experiences promoting learning
    - Experiences hindering learning
QUANTITATIVE RESULTS
Sample Characteristics

IUK’s Sample (N=73)

- Selection by application into junior-level precepted model (B or better grades and faculty recommendation).
- No statistically significant differences on standard test scores on ATI Fundamentals exam (prior to program starting).
- Students voluntarily surveyed near the end of semester.

IUPUI’s Sample (N=148)

- Self selection into DEU, hybrid, or traditional model.
- No statistically significant differences on standard test scores on Kaplan Fundamentals exam (prior to program starting).
- Students voluntarily surveyed near the end of semester.
3 Nursing Skills: Significantly More Practice Opportunities in Models using Preceptors

IU Kokomo Models: Semester means-more than one course

- Traditional
- Precepted

IUPUI Models: 6-week means for one course

- Traditional
- PEP
- Hybrid

Oral Meds
Pt. Assessment
IV Therapy
Documentation Skills: Differential Results by Site

IUK Models: Semester means (more than one course*)

- Traditional
- Precepted

IUPUI Models: 6-week means for one course

- Traditional
- PEP
- Hybrid

E Health Record Documentation
E Health Record Access
Interpersonal Nursing Skills: Differential Results by Site

IUK Models: Semester means more than one course (found significant differences)

- Traditional
- Precepted

IUPUI Models: 6-week means (one course (no differences))

- Traditional
- PEP
- Hybrid

Teaching Patient

Counseling Patient

Teaching Patient

Collaborating
Integrated Testing Results: ATI or Kaplan, Inc.

IUK’s Models

- Assessment Technologies Incorporated Testing (ATI)
  - Medical-Surgical Nursing Exam Scores
- Compared mean scores for the precepted students vs. traditional students
- There were no significant differences between groups

IUPUI’s Models

- Kaplan Integrated Testing
  - 1st Semester Juniors: Medical-Surgical Nursing 1 Exam Scores
  - 2nd Semester Juniors: Medical-Surgical Nursing 2 Exam Scores
- Compared mean scores for each group (Traditional, PEP, and Hybrid).
- There were no significant differences among groups.
SECEE Results (Student Perception of Clinical Learning Environment, Sand-Jecklin, 1998)

IUK Models
- Instructor Facilitation of Learning
- Preceptor Facilitation of Learning
- Learning Opportunities
- Studied 3 times: First semester of new program--precepted model showed better scores on all three subscales, but no significant differences on any subscale when measured at mid- and end-point of curriculum.

IUPUI Models
- Instructor Facilitation of Learning (no difference among groups)
- Preceptor Facilitation of Learning (no differences among groups)
- Learning Opportunities
  - PEP Model significantly more learning opportunities than Hybrid or Traditional
RESULTS:
QUALITATIVE THEMES
Themes Across Models

IUK Precepted and IUPUI PEP

- Welcome me
- Guide me and engage me

IUK/IUPUI Traditional Model

- Help me make cognitive connections
- Chasing my faculty member

Across Models

- Let me start an IV
- Doing the work of a nurse
- Don’t you remember being a student?
- I appreciate high expectations
Theme Differences Across Models

- What can I learn while my patients are asleep? (IUK Precepted)
- Why do I have to do all this paperwork? (IUPUI across models)
Putting it all together
Quantitative Comparison Summary

- We need to think about how we help students learn to think, do, and be effective nurses.
- We need to consider whether a precepted or traditional model alone will help us achieve our desired student learning outcomes—think about how students spend their clinical time learning.
- We have not studied the transition to initial practice and how clinical learning prepare students.
- Students do more psychomotor skills in a precepted clinical environment.
- Other types of learning activities (documentation and communication-related) do not show such a clear pattern, though there may be some differences.
- No evidence that the learning environment model itself (traditional, precepted, PEP, or hybrid) makes a significant difference in standard test performance.
Qualitative Theme Comparison Summary

• Student participants in models using preceptors valued inclusion and guidance
• Both studies revealed that participants in traditional models described positive faculty influences on cognition.
• Student participants were focused on psychomotor skill performance as an indicator of success regardless of the model used.
• Although participants across models reported desiring more experiences, those assigned to night or evening shift were likely to mention the shift as a limiting factor.
Discussion Questions

• How can we promote metacognition across models?
• What are best practices for faculty in models that use preceptors?
• We found few significant differences. What outcomes should be studied with new clinical models?
• Does shift assignment make a difference in learning outcomes?
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