Evaluation of Students’ Perceptions Compared with Baccalaureate Program Objectives of a Peer Tutoring Program

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Disclosures:

- **Conflict of Interest:**
  - Catherine S. Thomas reports no conflict of interest
  - Nancy Peer reports no conflict of interest

- **Employer:**
  - Central Connecticut State University, New Britain, CT USA
Learning Objectives:

- Understand the current base of evidence related to peer tutoring and (student) success.
- Develop increased awareness of challenges and benefits related to student perceptions of the value of peer tutoring.
- Examine current factors related to tutoring program sustainability and student acceptance of peer tutoring program.
Purpose:

- Compare and contrast any differences between students’ perception of and actual performance related to program objectives of a pilot peer tutoring (PT) program in an undergraduate baccalaureate nursing program.

Relevant Nursing Program Objectives:

- Integrate theories & concepts from liberal education into nursing practice
- Integrates knowledge, skills & attitudes through use of nursing process to provide patient-centered care to patients across the lifespan from a diverse perspective

- Pilot Peer Tutoring program implemented based on Program Assessment & Student Needs Survey
Background:

- **Program assessment**: identified gap in meeting high stakes testing (HESI) national benchmarks:
  - HESI Exit Exam score: 2013/2014 cohorts - many with lower than national average
  - Exit Exam tests understanding of entire curriculum. 150 questions. Usually focused on critical thinking level intended to mimic questions found on NCLEX (licensure) exam including: multiple choice, multiple response, fill in the blank, hot spots, charts or drag/drop.
  - **Student needs survey**: completed by students about peer tutoring program indicated strong interest (2015 cohort)
  - Pilot program implemented with budget allowance from Dean’s office during spring semester (January to May) for seniors (2015 cohort) identified as at-risk
Background:

- **Peer tutors:**
  - Selection by faculty based on previous strong performance both on classroom & HESI assessments; Voluntary compensated position, completed orientation to role & signed confidentiality agreement

- **Student Learners:**
  - Selection by faculty based on: previous performance on both classroom & HESI assessments; presence of test anxiety, identified need for improvement/support in understanding nursing content & concepts
Background:

- Research in Nursing Education on PT:
  - Increases nursing student learner efficacy & knowledge (Brannagan, et al., 2013)
  - Nursing student learners demonstrated improved course grades; learners & tutors had higher average exam scores (Robinson & Niemer, 2010)
  - Multiple studies: clinical skill achievement focus identified

- Recent Healthcare PT Review of Literature Article:
  - Disproportionate focus on clinical skill achievement than academic achievements in studies
  - Mixed results: academic outcomes with nursing students (Williams & Reddy, 2016)
Background:

- **Literature in Education on PT:**
  - Positive effect: use of several cognitive & metacognitive strategies for learners & tutors - additional benefit for tutors: social skill scale score improvements (Arco-Tirado et al, 2011)
  - Students reported positive impact on understanding of course content & confidence as learners & tutors had benefits in academic outcomes over comparison students (Colver & Fry, 2016)
  - Counteracts “academic isolation” & creates low-risk environment. No consistent demonstration of academic gains from reviewed studies (Stigmar, 2016)
Methods:

- **Approval**: CCSU Human Studies Council
- **Design**: Quantitative
- **Sample**: Convenience sample of adult senior level nursing students: 21 Student Learners, 4 Peer Tutors
- **Implementation**: March - April 2015, learners asked to complete weekly 1-2 hour sessions with tutors. Tutors worked range of 2-4 hour shifts weekly. Tutors encouraged to take advantage of resources if no learners were present. Total of 107 learner/tutor hours completed during time frame. Some learners opted for independent study with resources: total of 17 hours logged
Methods:

- **Data Collection:**
  - **Needs Survey:** 8 Question anonymous Electronic Survey, Total of 34 respondents, administered Spring 2014
  - **HESI Exit Exam Results:** Student learners took version 1 & 2, compared with national 850 benchmark, administered during Spring semester of 2015, peer tutors took version 1
  - **NCLEX (licensure) Results:** Student learners and peer tutors first time pass results were tracked from May 2015 until April 2016
Results: Student Needs Survey Results:

Peer Tutor would be Helpful

- YES
- NO
- Undecided

Hours/Week Available for Peer Tutoring

- 1 - 2 Hours
- 3 - 4 Hours
- 5 - 6 Hours
- Undecided
Results: HESI Exams: 21 Learners

- 3 tested below 850 on all 4 previous HESI Exams
- 12 tested below 850 on 3 out of 4 previous HESI Exams
- 6 tested below 850 on 2 out of 4 previous HESI Exams

- 4 learners had increase on Exit 2 (range of 10 - 37%)
- 5 learners tested almost exactly same on Exit 2 (≤ 1% change)
- 12 learners had a decrease on Exit 2 (range of 4 - 31%)
- 11 learners highest Exit (1 or 2) had 10.2 % average increase over average previous HESI Exam scores (range of 2 - 25%)
Results: HESI Exit Exam Score Change

Change in Learners Exit Exam Score

- Increase
- No Change
- Decrease

% Decrease Breakdown

- 3 - 10%
- 11 - 20%
- 21 % +
Results: HESI Exit Exam: Peer Tutors

- Total of 4 Peer Tutors:
- Average Previous HESI Exams Score: 949
- All 4 tutors scored over 850 benchmark on Exit Exam
- All tutors took Exit Exam 1 version only
- Average Exit Exam 1 Score: 971

- 2 peer tutors had 10.5% average increase over average previous HESI Exam scores (range of 5 - 16%)
- 2 peer tutors had 5.5% average decrease over average previous HESI Exam scores (range of 3 - 8%)
Results: NCLEX First Time Pass

- Student Learners: 9 failures, 12 passes
  - 9 Failures - comparison of HESI performance of interest
  - 12 Passes
- Peer Tutors: all 4 passed
- Other senior students NOT involved in PT Program:
  - 16 Passes, 2 failures
  - Note - all had over 850 benchmark on previous HESI exams
  - Average Highest Exit Exam Score: 914
Results Breakdown: NCLEX Performance

Learners: All 4 Previous HESI Exam under 850

<table>
<thead>
<tr>
<th>Student</th>
<th>Highest Exit Exam Score</th>
<th>Number of Hours</th>
<th>NCLEX First Time Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>741</td>
<td>12 (mixed)</td>
<td>Failure</td>
</tr>
<tr>
<td>2</td>
<td>797</td>
<td>5 (mixed)</td>
<td>Failure</td>
</tr>
<tr>
<td>3</td>
<td>766</td>
<td>15 (independent)</td>
<td>Pass</td>
</tr>
</tbody>
</table>

Learners: 3 of Previous HESI under 850  (5 out of 12 total)

<table>
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<th>NCLEX First Time Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>737</td>
<td>2 (PT)</td>
<td>Failure</td>
</tr>
<tr>
<td>2</td>
<td>797</td>
<td>8 (PT)</td>
<td>Failure</td>
</tr>
<tr>
<td>3</td>
<td>565</td>
<td>4 (PT)</td>
<td>Failure</td>
</tr>
<tr>
<td>4</td>
<td>612</td>
<td>12 (PT)</td>
<td>Failure</td>
</tr>
<tr>
<td>5</td>
<td>824</td>
<td>3 (PT)</td>
<td>Failure</td>
</tr>
</tbody>
</table>
Results: PT Program Satisfaction Survey

- 10 Question Likert Scale Electronic Survey
- Sent to all 25 participants via CCSU email in July of 2015
- Total of 8 responses received

<table>
<thead>
<tr>
<th>Question Topic</th>
<th>S.Agree &amp; Agree</th>
<th>Neutral</th>
<th>Disagree &amp; S.Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sufficient resources available to PT/me</td>
<td>6</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Center environment appropriate for learning</td>
<td>2</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>PT Friendly &amp; Courteous</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>PT was valuable to my learning</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Would recommend PT to others</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
## Results: PT Program Satisfaction Survey

<table>
<thead>
<tr>
<th>Question Topic</th>
<th>Strongly Agree &amp; Agree</th>
<th>Neutral</th>
<th>Disagree &amp; Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meeting w/ PT Positive Experience</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Meeting w/ PT helpful w/ concepts</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>PT increased self confidence w/ NCLEX Questions</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>PT knowledgeable w/ NCLEX strategies</td>
<td>6</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>PT used appropriate resources w/ me</td>
<td>5</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>
Conclusions:

- Challenges:
  - Duration & timing of implementation of PT program
  - Unknown influence of other factors on student success
  - Cost of program & faculty oversight time demands

- Student acceptance:
  - Stated interest & satisfaction was different
  - Actual time completed by learners varied

- Benefits:
  - 21 at risk students provided with additional program resource at no cost to students
  - 12 of 21 at risk passed NCLEX (licensure) on first attempt
References:


