Comparison of Two Modes of Teaching Delivery in Graduate Nursing Education

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Research study funded by Academic Partnerships, LLC
Severe nursing shortage predicted in USA—with recruitment, causing increasing shortages internationally.

There is a need for over 1 million nurses predicted by 2020 (Bureau Labor Statistics, 2012.)

Greatest US needs in the west and south

Institute of Medicine Landmark Report (2010) called for dramatic increase of RNs to the Baccalaureate level as well as expanding Masters and Doctoral candidates.
In 2008, UT Arlington College of Nursing partnered with Academic Partnerships to create an online RN–BSN program followed by a Masters in Nursing Administration program that was:

- Affordable (partnering with hospitals)
- Scalable (coach model)
- Accessible (online 24/7)

In the next 4 years, enrolled students increased from 137 on campus to over 5,000 nationally.

We currently have over 10,000 students enrolled.
Masters Program

- **Traditional program** – 15 weeks courses

- **AP**: Predominantly 5 week courses (with 2 rigorous courses in 10 week blocks)—faculty plus coaches

- First course is the Analysis of Theories course – 5 weeks

- AP students online move through identical coursework at a pace of 1 AP week = 3 Traditional weeks

  - SAMPLE ASSIGNMENTS: Quiz, Concept analysis paper, middle range theory presentation and Personal Framework paper
<table>
<thead>
<tr>
<th>Traditional</th>
<th>Academic Partnership</th>
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<tbody>
<tr>
<td>Once a month lectures on campus—5.5 hours/day</td>
<td>Exclusively online—video clips of lectures highlighting key points</td>
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<tr>
<td>1:1 time with faculty in person</td>
<td>Coaches are first point of contact</td>
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<tr>
<td>Face to face group time—self select</td>
<td>Groups are alphabetically assigned</td>
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<tr>
<td>Discussion board questions in between course meetings</td>
<td>Discussion board questions 2–3 times a week</td>
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<tr>
<td>Faculty help thread</td>
<td>Faculty help thread</td>
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</tbody>
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Sigma Theta Tau International Convention, Las Vegas NV, 2015
Concerns

- Stress—majority of our students work part time or full time as nurses while in these programs—(Mintz-Binder & Ademuyewo, 2013) Emotional scale of burnout medium high

- Sense of Belonging—do they feel connected while in this intensive style of program?

- These variables studied previously online DNP program (Reilly & Fitzpatrick, 2009) Inverse relationship noted

- Does having a coach accessible offset either of these concerns?
Longitudinal Study Proposed:

- Phase I: Summer SAMPLE: Masters degree nursing students
  - * Traditional students* completed first course in May 2013
  - * A.P. students* completed first course over summer 2013
- IRB approval May 2013 UTA
- Emails through UTA student emails
- Initial invitation, 3 follow-up requests
1. Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983) 10 items – Likert
2. Sense of Belonging Scale (Hagerty & Patusky, 1995) 18 items – Likert
3. Demographics – 12 points
Results: Phase I

- **Traditional Students**
  - N=21
  - 71.4% under 40 years
  - 52.4% Caucasian; 19% Asian; 9.5% African–American
  - 90.5% female; 71.4% married
  - Scale means:
    - Perceived stress: 15.43
    - Belonging: 59.70

- **A.P. Students**
  - N=37
  - 70.3% under 40 years
  - 67.6% Caucasian; 0% Asian; 16.2% African–American
  - 94.6% female; 62.2% married
  - Scale means:
    - Perceived stress: 15.58
    - Belonging: 63.17
Interesting Correlations

- Perceived stress was inversely related to Sense of Belonging in both groups, but did not reach significance.

- **Traditional students** that reported receiving a final grade of B or lower correlated with greater length of time since receiving their Bachelors degree ($r=0.419$, $p<0.059$).

- **In the AP group:**
  - Perceived stress was inversely related to grades ($r=-0.334$, $p<0.046$)
  - Strong trend Sense of Belonging correlated with the number of times student contacted the coach ($r=0.246$, $p=0.15$).
  - Only 5 students indicated that they chose to not contact their assigned coach.
On to the Phase II!

- This same group of students was re-tested over summer 2014 to see if major variables shift longitudinally. Funding was renewed through Academic Partnerships, LLC. IRB approval received.

- $25 gift cards if the same students complete the 2nd survey.
Results: Phase 2

- N=15 (out of original 21)
  - 71.4% repeated
  - 6/21 28.6% loss
  - Scale means:
    Perceived stress: 15.73→15.37
    Belonging: 41.0→40.5

- N=25 (out of original 37)
  - 67.6% repeated
  - 12/37 32.4% loss
  - Scale means:
    Perceived stress: 14.96→14.0
    Belonging: 45.92→43.29

Traditional Students

A.P. Students
Time 2 Correlations

- Inverse statistical correlation reached between PSS and SOB for the full group
  - $(-.46; p=.003)$

- Inverse statistical correlation reached PSS and SOB for Traditional Grp. but not AP Grp.
  - Traditional $(-.66; p=.008)$
  - AP $(-.34; p=.097)$

  (Spearman Rho calculations due to small sample size)
**Time 1 compared to Time 2**

- **Traditional Group Changes: both significant**
  - PSS: \(0.533; p=0.04\)
  - SOB: \(0.763; p=0.001\)

- **AP Group Changes: only SOB significant**
  - PSS: \(0.224; p=0.28\) N/S
  - SOB: \(0.490; p=0.013\)

  (Spearman Rho calculations due to small sample size)
Within the Traditional model of course delivery, SOB appears to modulate stress over the course of the year—scores are fairly consistent.

Within the AP, successful students appear to modulate their stress and use “belongingness” through online opportunities in a positive and productive way.
The intellectual merit of this longitudinal study is:

- to report on variables within these two styles of course not specifically collected nor correlated in past studies, thus eliminating an essential gap in the literature.

- This longitudinal study is valuable in that we can measure whether sense of belonging or stress changes over the course of one year in these two programs.

