U. S. Army-Baylor Clinical Internship Model:

A Marriage Between Academia and Industry

LTC Stephen, L. Goffar, PT, PhD
Director of Clinical Education/Associate Professor
U.S. Army-Baylor University DPT Program Orientation

- Carnegie classification: RU/H
- DPT as of 2005
- 30 Month program
- 24 students per class
  - Typical Student: 1170 GRE/3.7 GPA
- 8 Core faculty (7 PhD, 1 DSC)
- 5 Adjunct Clinical Faculty (Internship)
- Our Mission…
Objectives in Clinical Education

- Reduced Variance in Graduate capabilities
- Evidence Based Education
  - Collaborative
  - Peer learning
- Mentored by Clinical Experts
  - DSC/Cert. Specialists/FAAOMPT
  - Clinical Faculty
- Expectation upon completion:
  - Pass licensure exam
  - “Beyond Entry Level” in ortho skill set
  - Prepared for Independent Practice-direct access
Evolution of the Model

Early DPT 2005-2007+
(27 month program)
- 8 week affiliation after 2 semesters of Ortho
- 8 week affiliation after 1 more semester of Neuro
- 9 month Internship
  - 1-2 Interns per site
  - 1:1 CI:Intern ratio

DPT 2008-Pres
(30 month Program)
- 8 week affiliation after 2 semesters of Ortho
  - Traditional 1:1 ratio
- 12 month Internship after all didactic work
  - 2-8 interns per site
  - 1:2 to 1:4 CI:Intern ratio

Assessment: CAB→CPI

ORTHO
12 Month Internship

- ~40 weeks of Outpatient Ortho
  - Variety of areas of emphasis
- 6-8 weeks of Acute care
- 2-4 weeks of Amputee/limb salvage care
- 2+ weeks of Electives
  - Ortho/Pharm/Rad/Neuro/EMG
  - Sports/TBI/Peds/CHT/adult neuro
Intern Distribution

2 Interns

3 Interns

3 Interns

2 DSc

DSc

DSc

2 DSc

DPT OCS FAAOMPT DSc

TEXAS PHYSICAL THERAPY SPECIALISTS
Incremental development

- **2007**
  - Six interns to Air Force Medical Ctr
  - Others to a variety of locations
- **2008**
  - Eight Interns at Wilford Hall (renovations)
  - Six Interns at Brooke Army Medical Ctr
  - Seven Interns at Texas Physical Therapy Specialists
- **2009**
  - Expanded to C.R. Darnall Army Medical Ctr with 4 interns (renovations)
The Objective Model

- Few Clinical Internship sites
  - Diverse clinical case load
  - Committed to Clinical Education
  - Committed to development of clinical faculty
- Cohorts of 4-8 students
- 1:3 or 1:4 Clinical Faculty: Intern ratio
- Exceptional Internship Directors
- All in “close” proximity
- 9-12 months
Benefits to Stakeholders: Win-Win

- **DCE**
  - Reduced number of affiliation agreements
  - Higher quality affiliation sites

- **Clinical Instructors**
  - Familiar with program
  - Time to engage with Interns without rushing pnt care
  - Opportunity for Research/Teaching
  - Engaged in program development

- **Students**
  - Research
  - Mentorship of Jr classes
  - Development of Future Clinical Instructors

- **Value added for Clinical sites**
- Reduced cost “intern cost” of clinical education
Value Added for the Clinical Site

- During the 2nd year, at one military site consisting of 8 students and 2 clinical faculty FTEs, the facility demonstrated:
  - An overall increase in productivity of by seeing 50 additional referrals per month
  - Generating an estimated annual savings of $1.2 million in direct medical cost avoidance associated with sending PT referrals into the civilian Tricare network.

- Requires Economies of Scale
  - 6 Interns
  - 9 months
Outcomes: Other costs (student costs)

- 8 week affiliation for 24 students
  - 6-8 sites in town
  - 16 sites out of town
    - Hotel/per diem/travel ~$4500
    - Stay with family ~$2500
  - FY 10
    - $62,000 in expenses
  - FY 11
    - Projected at $72,000
Outcomes: Student Outcomes

- **FSBPT**
  - 97% first time pass rate 5 years (DPT)

- **Clinical Assessment Book**
  - No difference in VAS outcomes
  - Most “entry level” by 6 months

- **Qualitative assessment**
  - Focus groups
  - surveys

CPI Data Coming
Outcomes: Interns Perspective

- I have no doubts that the collaborative model enhanced clinical education. No matter how great the relationship between intern and instructor, lines of communication will likely remain more open amongst peers. This manifests in clinic by allowing us to shoot ideas directly off one another (case report process helping in this as well), improving clinical learning and patient outcomes... not to mention clinic efficiency.
Outcomes: Interns Perspective

- In my limited experience, 3:1 model is much better as an intern. Increased academic dialogue; interns have the advantage of bouncing ideas off each other as well as CI. interns able to more often drill and quiz CPRs, red flags, etc. Competition among interns. Easier for CI's to grade strengths/weaknesses.
Outcomes: Interns Perspective

- Multiple interns at one location allows for feedback from multiple sources. Not only do we get feedback from the CI, we also get feedback from the other interns. Additionally, we can learn from the other interns' mistakes/strengths observed in the clinic.

- I think the group of interns is a good idea because we can bounce ideas off of each other and we feel more comfortable asking each other questions than always asking the CI. Also, having multiple interns always gives you a partner to practice manual therapy techniques.
Outcomes: Clinical Faculty

Written After Action Reports/Lessons learned
Outcomes: Clinical Faculty Perspective

“"The CI/multiple intern model works well. It is good for healthy competition amongst the interns, which keeps them on their toes and engaged throughout the internship. It also allows the interns to discuss cases together and bounce ideas/treatments off of each other vs always turning to the CI. It's also good for an ongoing lab. The interns routinely get together at lunch or during any down time and practice manual interventions they have learned on each other. I never had this opportunity as a student and would have been a better entry level PT with this experience.”” – Texas Physical Therapy Specialists
Outcomes: Clinical Faculty Experience

- I work in a busy clinic. We have certain productivity #s that must be maintained. Traditional students cost us a lot. They are slow, they require assistance in decision making and intervention. This is normal...that's why they are here. However with the 3:1 level I can teach the interns without sacrificing care of my other clinic patients. This allows much more deliberate teaching and overall better patient outcomes with the students.

- 3:1 is challenging. You must be prepared to interact with every patient every day that your interns see. The interns challenge each other often and will do it well. Look for times to help focus that.
Outcomes: Clinical Faculty Experience

- The interns have a way of teaching each other with each new discovery that is made. It is well worth coordinating time for them to watch each other treat patients.

- This is the way clinical teaching should be done. Better 1on1 time with each intern in the 3:1 model. Counterintuitive, but there really is more time with each one.
Initial Resistance to Learning Groups

- “we don’t have space”
- “too many students to supervise effectively”
- “workload will suffer”
“Too many Interns to Supervise”

Early Phase

- **1st 8 weeks students work in pairs**
- **CID present for all New evals**
- **One Intern is the lead**
- **Time for Intern to reflect on practice**

Late Phase

- **CID is a “Force Multiplier”**
“Workload will suffer”

1:1 Model
- PT -1 FTE
- Intern +.6 FTE
- Productivity .6 FTE

3:1 Model
- DSc -1 FTE
- Intern +.6 FTE
- Intern +.6 FTE
- Productivity 1.8 FTE

• Net Loss in productivity or unrealistic expectations for Intern workload
• Resentment
• High numbers of CI’s needed
## Academic Time

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Academic Time</strong></td>
<td><strong>Academic Time</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Win-Win

- Clinical Education excellence in a cooperative setting with highly engaged and well prepared clinical faculty whose experiences are shared across internship sites, collaborative curriculum development, monthly grand rounds across sites, and mentorship opportunities.

- Business Practice: exceptional workload benefits without sacrificing quality, value added to develop, hire, and retain well qualified clinical faculty.
Concerns

- Homogeneity of experience...
- Clinical faculty turn over...
- Workload and billing...
- Medicare patients...