The Business Case for an Innovative High-Value Continuing Professional Development Initiative in Physical Therapy

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What is a PT Residency?

• Post-professional program designed to substantially advance the resident’s expertise in examination, evaluation, diagnosis, prognosis, intervention, and management of patients within a specialty.

• May be used to prepare for examination for “neurologic clinical specialization (NCS)”.
  – (NOT THE GOAL, but is a measurable by-product)

• Initially designed by MUSC as an educational, but not business model
Comments from the Dean

1. Given the complexity, why do you want to do this?
2. Don’t ever ask me for money.

...Now we need a business model!!
Marketing Analysis

• Conducted by four MBA students as a program project
• Surveyed DPT students from four universities & recent DPT graduates (last 3 years)
• Discovered overall interests in residency programs and limitations to implementation
  – 79% of students and 61% of therapists either “somewhat” or “highly” interested in residencies
  – 94% feared costs
  – 56% feared relocation
Unofficial Mission: Develop post-professional clinicians via residency education who otherwise would not have been able to engage in a residency.

Business Model Goals:

- Tuition completely covered by employer ($8000 for tuition; ~$12,000 total cost)
- No relocation involved
- Minimal losses to productivity (for resident and clinical mentor)
- Maintain revenue neutrality to MUSC while maximizing investment of clinical partners
Marketed Benefits to Facilities

• **Recruitment:** Applications for PT positions to residency sites have markedly increased since initiation.

• **Retention:** Residents sign on for additional commitment for each participating site.

• **Marketing:** An increase in % of therapists with specialty certification is reflected on the APTA national registry of NCS certified therapists.

• **Culture change:** Our goal is to increase the level of evidence-based practice occurring in inpatient rehabilitation and to develop leaders and creative problem-solvers.
Program Overview

• Four intensive weekends in Charleston studying specific neurologic topics (64 hours)

• Approximately 120 hours of additional online content including a “virtual classroom” to review literature, discuss patient scenarios, and engage in interactive education

• Three site visits by program faculty to each site to observe the resident treating patients as well as resident-mentor interactions

• 160 hours of 1:1 mentoring by physical therapist with specialized experience
Mentorship Program

What is mentorship?

- A mentorship is a relationship formed between a mentor and mentee with the goal of sharing knowledge and expertise between the mentor and the mentee.

- In addition to teaching advanced clinical skills and decision making, the mentor also facilitates the development of advanced professional behaviors, proficiency in communications, and consultation skills.

How is mentoring clinicians different than mentoring students?

- Different framework

- Collaborative

- Advanced reasoning and skills
Mentorship Requirements

• Complete online mentorship certification course (provided by the American Physical Therapy Association for $250, funded by the residency program)

• Participate in ongoing program-led mentorship training

• Mentors may participate in all didactic courses and must be familiar with content in order to reinforce material with residents during patient care

• Mentors should have specialty certification OR a minimum of three years in neurological physical therapy (or be a residency graduate).
Training Outcomes

All Neurologic residencies 2014

n=14
Training Outcomes

MUSC Neurologic residencies 2017

11 sites
7 states
21 residents enrolled

**HealthSouth**: Charleston, SC; Rock Hill, SC; Anderson, SC; York, PA; Charlottesville, VA; Fredericksburg, VA; Phenix City, AL; Nashville, TN; and Sarasota, FL

**Roper St. Francis Rehabilitation Hospital**: Charleston, SC

**Wake Forest Baptist Rehabilitation Hospital**: Winston-Salem, NC
## Value Data From Individual Site*

<table>
<thead>
<tr>
<th>Prior to Residency</th>
<th>Currently</th>
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<tr>
<td>Positions open for ( \leq 6 ) months</td>
<td>Bank of available applicants</td>
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<tr>
<td>• Requires hiring of expensive traveling or prn therapists</td>
<td></td>
</tr>
<tr>
<td>Start up costs ( \leq 20,000 )</td>
<td>Start up package $3000</td>
</tr>
<tr>
<td>Limited culture of EBP (measured by utilization of standardized outcome measures)</td>
<td>125 of 220 patients with stroke in 2016 seen by affiliate of residency program</td>
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3 out of last 4 hires sought out Anderson directly because of the neurologic residency partnership

*Anderson, SC AnMed Health Rehabilitation Hospital
Value Data From Individual Site*

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<tr>
<th>AnMed</th>
<th>National Average (120 sites)</th>
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<tr>
<td>87.3% discharge to community</td>
<td>72.3% discharge to community</td>
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<tr>
<td>Stroke length of stay 14.1 days</td>
<td>Stroke length of stay 16.8 days</td>
</tr>
<tr>
<td>Stroke FIM change 32.7 points</td>
<td>Stroke FIM change 30.2 points</td>
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<tr>
<td>Stroke discharge FIM 83.4 points</td>
<td>Stroke discharge FIM 79.3 points</td>
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Patient satisfaction 7 out of 120 hospitals
Overall ranking 4 out of 120 hospitals

*Anderson, SC AnMed Health Rehabilitation Hospital
Value to MUSC

• Development of clinical education sites for entry-level DPT students

• Revenue created for Division of Physical Therapy strategic planning

• Development of clinical partners for comparative effectiveness and pragmatic clinical trials
  – One pilot project funded by HealthSouth currently underway
  – Large multi-site pragmatic trial under development
Plans for Business Model

• Calculate cost for length of stay gains

• Compute metric for “value” based on cost, outcomes, and patient satisfaction data

• Calculate costs per site for recruitment, retention, and marketing and evaluate impact of residency

• Develop clinical partners as models for comparative effectiveness and pragmatic clinical trials