


From Generalist to Expert: The Value of Residency & Fellowship Training

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Continuing Medical Education Credit Information


- Activity Description/Statement of Need:
 - This course will explore the crucial role of advanced training programs, such as residencies and fellowships, in improving patient outcomes in physical therapy. We will begin with an overview of the current state of physical therapy education and the need for specialized training beyond generalist education.
 - The lecture will cover the structure and curriculum of residency and fellowship programs, highlighting their benefits. We will analyze studies showing improvements in effectiveness, efficiency, and patient satisfaction among residency-trained physical therapists.
 - Real-world examples and case studies will illustrate the positive impact of advanced training on patient care and professional development. We will also discuss the challenges and barriers to residency training and propose potential solutions.
 - By the end of the lecture, participants will understand the importance of advanced training in physical therapy and its role in achieving superior patient outcomes and professional growth.
 - Medical professionals, including physical therapists, should expect to achieve enhanced understanding of how to achieve improved evaluation, management, and communication skills for patients with or without referral.
- Target Audience: All Providers



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Designation Statement


- It is St. Luke's University Health Network policy to ensure balance, independence, objectivity and scientific rigor in all of our sponsored educational programs. Faculty and all others who have the ability to control the content of continuing medical education activities sponsored by the St. Luke's Hospital & Health Network are expected to disclose to the audience whether they do or do not have any real or apparent conflict(s) of interest or other relationships related to the content of their presentation(s).
- The St. Luke's University Health Network is accredited by the Pennsylvania Medical Society to provide continuing medical education for physicians.
- The St. Luke's University Health Network designates this live educational activity for a maximum of 1 AMA PRA Category 1 Credits™. Physicians should only claim credits commensurate to the extent of their participation on the activity.



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Disclosure Information


- The Planners involved in this activity have no relevant financial relationships to disclose.
- The Faculty/Presenters involved in this activity have no relevant financial relationships to disclose.
- Content Disclosure: Dr. Kareha is a program director for a residency and a fellowship



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Learning Objectives

- Describe the role of residency programs in medical education and the usefulness in advancing clinical decision making and practice.
- Demonstrate how residency programs enable residents to refine their clinical practice and decision making under the mentorship of advanced clinical providers.
- Discuss how residency programs allow healthcare providers to gain in-depth knowledge and expertise in, preparing them for specialized patient care.
- Describe the importance of building professional relationships during residency, including mentorship opportunities and networking for future professional development.




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Evolution of Patient Expectations




INCREASING COMPLEXITY
OF PATIENT CARE
DEMANDS



GROWING NEED FOR
SPECIALIZED EXPERTISE



RIISING PATIENT
EXPECTATIONS AND
COPAYS



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Evolution of Physical Therapy Education



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Board Certification

- 15% of PTs are board-certified specialists
- Multiple specialty areas available
- Demonstrates advanced knowledge
- No formal mentorship requirement

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Residency

- Develop generalists into specialists
- Only 12% of DPT graduates enter residency
- Structured mentorship and specialized training
- Comprehensive curriculum combining:
 - Clinical practice
 - Didactic education
 - Mentored learning
 - Research integration

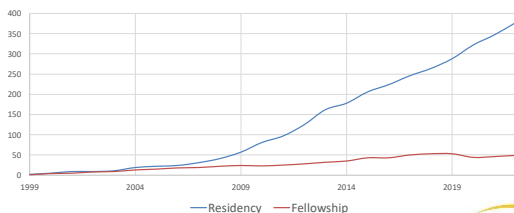
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Fellowship

- Develop specialists into superspecialists
- Highest level of clinical training
- Only 4% of PTs are fellowship trained
- Highly specialized focus areas
- Advanced clinical reasoning emphasis

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Accredited Programs



ABPTRFE, 2024

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Which Learning Activities Enhance PT Practice?

- Systematic Review: Eight data bases inception through 2018: 26 randomized control trials
 - Greatest evidence suggests active approaches:
 - peer assessment
 - mentored patient interactions, should be used when designing learning activities

Very Limited evidence that professional development courses improves PT knowledge and changes practice patterns

Leahy E, Chipchase L, Calo M, Blackstock FC. Which learning activities enhance physical therapist practice? Part 1: systematic review and meta-analysis of quantitative studies. Phys Ther. 2020;100:1469-1483.

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Impact of Continuing Education

- Improves self-efficacy
- Limited long-term skill retention
- Minimal impact on patient outcomes

Gunn & Goding, 2009



Mentorship

- CE + mentorship superior to CE alone
- Improved clinical outcomes
- Better skill integration

Brennan et al. 2006



Is the Juice worth the Squeeze?

Nay Sayers:

- No benefit beyond specialization (just additional letters)
- Quality concerns
- Cost of residency training
- Only benefits person going through program
- Added stress will cause burnout
- Limited impact on career



Is the Juice worth the Squeeze?
Program Sustainability

Westervelt et al. 2018



Resource intensiveness



Faculty demands



Financial viability



Comparisons of Clinical Competency and Job Responsibilities of Physical Therapists With and Without Postprofessional Training

Responses used in the analysis: n=2,334
(Residency Trained: n=89)
[Fellowship Trained: n=191]
(Non-Residency/Fellowship Trained: n=2,054)

Matthew S. Briggs, PT, DPT, PhD, AT; Nicholas Galla, PT, DPT; Heidi Howard, PT, DPT; Mark D. Weber, PT, PhD, AT; Brady J. Olson-Kollege, PT, DPT; John J. Delitto, PT, DPT; AT; Craig P. Henley, PT, DPT; Kendra L. Harrington, PT, DPT, MS; Melissa S. Koller, PT, DPT; Joseph P. Ferrell, PT, NABPSSO, DPT, FAPTA; and Carol Jo Tichenor, PT, MA, FAPTA.

- Increased Self-Perceived Clinical Competency with challenging patients
- Higher importance of ownership of patient progression
- Increased reflection on patient outcomes
- Decreased feeling of being overwhelmed by workload
- Decreased risk of burnout post-residency



Table 2. Perceived Clinical Competence Responses Comparing Non-Residency- or Fellowship-Trained PTs, Residency Trained, and Fellowship Trained*

	Non-Residency- or Fellowship-Trained PTs	Residency-Trained PTs	Fellowship-Trained PTs
Q1. I am very comfortable with ambiguity/uncertainty in patient care ^{a,c}	3.9 (1.0)	4.1 (0.8)	4.3 (1.1)
Level of agreement	4 [4]	4 [4]	5 [4]
Q2. Failure of the patient to progress is my responsibility ^{a,c}	3.1 (0.9)	3.4 (0.7)	3.4 (0.9)
Level of agreement	3 [4]	3 [3]	3 [4]
Q3. I rely heavily on clinical practice guidelines when treating patients	3.4 (0.9)	3.3 (0.8)	3.3 (0.9)
Level of agreement	3 [4]	3 [4]	3 [4]
Q4. I rely heavily on protocols when treating patients ^{a,c}	2.9 (1.0)	2.8 (1.0)	2.4 (0.9)
Level of agreement	3 [4]	3 [3]	2 [4]
Q5. Reflection is an important tool for improving my patient outcomes ^{a,c,d}	4.2 (0.7)	4.4 (0.8)	4.7 (0.6)
Level of agreement	4 [4]	5 [4]	5 [3]
Q6. I am often overwhelmed by my patient care responsibilities and workload ^d	2.7 (1.1)	2.7 (1.0)	2.4 (1.1)
Level of agreement	3 [4]	2 [4]	2 [4]

Comparisons of Clinical Competency and Job Responsibilities of Physical Therapists With and Without Postprofessional Training. Journal of Physical Therapy Education 37(4):p 332-341, December 2023



Diagnostic Accuracy

- Residency graduates showed superior diagnostic accuracy
- More efficient clinical reasoning
- Better pattern recognition

Souter et al. 2019



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Professional Development

- Increased leadership positions
- Higher salaries for residency graduates
- Greater educational involvement

Jones & Bellah, 2008



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Personal Outcomes

- Increased job opportunities (73%)
- Increased career fulfillment (96%)
- Meet or exceed productivity standards (97%)

Bentzen et al, 2024, unpublished



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What Makes a Provider an Expert?

- Expert practice patterns
- Clinical reasoning
- Patient interaction skills

Resnik & Jensen, 2003



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How do you Acquire these Skills?

- Post-activity reviews
- Structured reflection
- Performance feedback loops

Ron et al, 2006



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Deliberate Practice

- Structured skill development
 - Focused feedback
 - Progressive challenge
 - Reflective practice
- Class/Lab
- } Mentoring

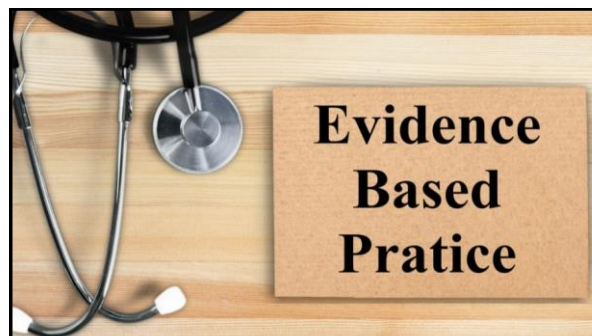
Anders Ericsson, 2008



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Purpose

- Part 1 - Do different levels of post-graduate training affect patient outcomes?
- Part 2 - Does residency training lead to better outcomes compared to experience alone?

Kareha, Shotto, Bays, Bradley, Tews, Holmes. In Press. 2025

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Details – Part 1

- **Setting:** Physical Therapy at St. Luke's
- **Inclusion:** All PTs with FOTO data
- **Exclusion:** <40 cases in 1 year

Kareha, Shotto, Bays, Bradley, Tews, Holmes. In Press. 2025

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Part 1 Participants

FELLOWSHIP-
TRAINED (FT): N=7

RESIDENCY-
TRAINED (RT):
N=24

BOARD-CERTIFIED
WITHOUT
RESIDENCY/
FELLOWSHIP
(BNT):
N=35

NO ADDITIONAL
CERTIFICATION
(NBNT): N=81

Kareha, Shotto, Bays, Bradley, Tews, Holmes. In Press. 2025

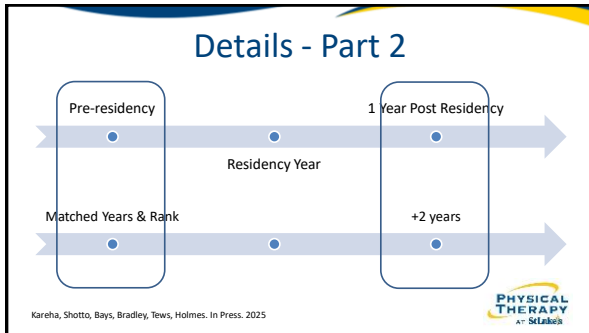
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Details – Part 2

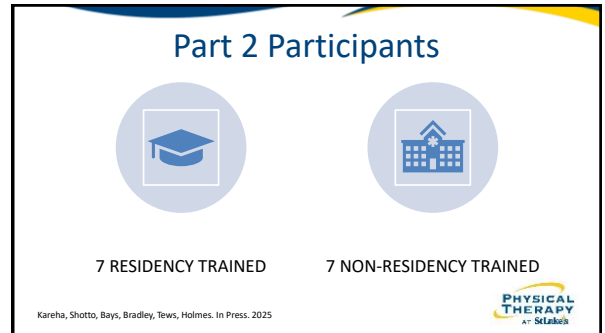
- **Setting:** Physical Therapy at St. Luke's
- **Residency Group Inclusion:**
 - All PTs with >40 cases of FOTO data PRIOR to starting residency
 - >40 cases of FOTO data within 1 year POST residency
- **Case Control Group Inclusion:**
 - ±6 months of experience from resident group
 - ±5 percentile points from resident group

Kareha, Shotto, Bays, Bradley, Tews, Holmes. In Press. 2025

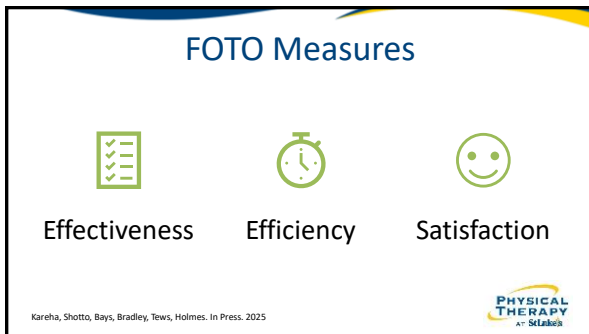
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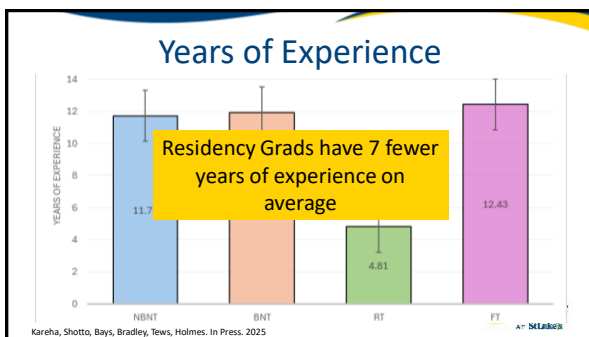
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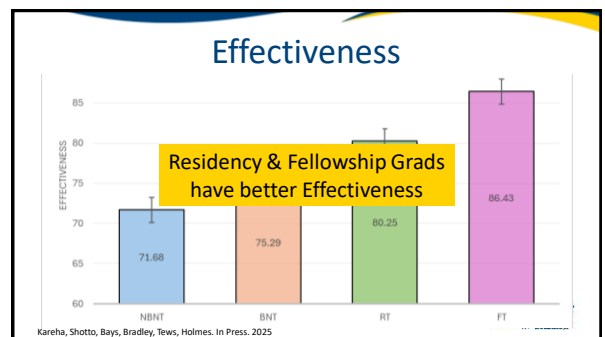
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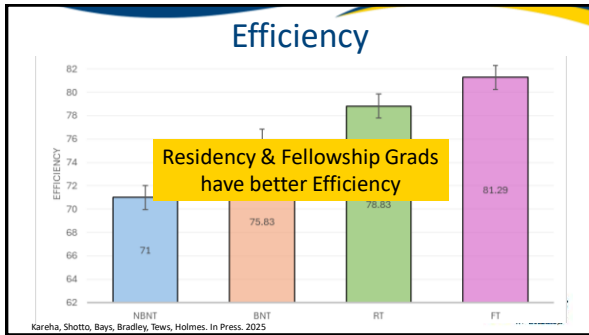
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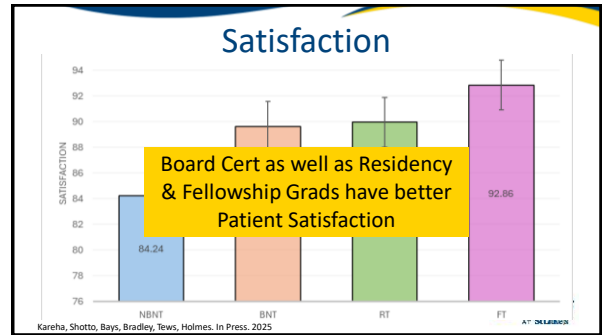
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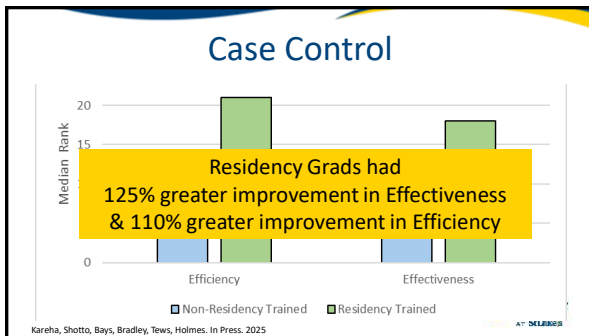
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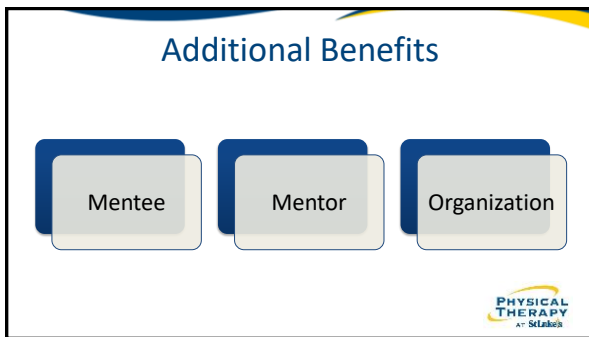
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Mentor Benefit



JOB SATISFACTION



RECIPROCAL
LEARNING



ORGANIZATIONAL
PRIDE



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Organizational Benefits



NETWORKING



WORK
ENVIRONMENT



COST EFFECTIVE



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SLUHN PT Survey



82%- Residency



92%- Fellowship



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Clinical Impact

- Clinical decision making & diagnostic accuracy
- Enhanced manual therapy skills
- Better EBP implementation
- More efficient patient outcomes
- Better treatment of complex cases



SLPT Value of Residency Survey, 2024



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Professional development

- Increased confidence
- Valuable mentorship opportunity
- Improved networking opportunities
- Leadership development
- Elevate clinical standards

SLPT Value of Residency Survey, 2024



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Clinic Benefits

- Raises standards and expectations
- Promotes knowledge sharing
- Improved relationship with referring providers
- Culture of continuous learning

SLPT Value of Residency Survey, 2024



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Take Home Message

Patient
Outcomes

Reciprocal
Growth

Network
Benefit



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Questions?



<https://www.inc.com/jim-schlecker/why-great-leaders-ask-great-questions.html>



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