

Roads to Specialization: Post-Professional Pathways and the Rise of Clinical Specialists in Athletic Training

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Goals and Objectives

1. Analyze the roles of post professional pathways in athletic training including post-professional master's, doctorate in athletic training, residency, and continued professional development planning.

2. Define and describe a clinical specialist in athletic training, the current frameworks for developing a clinical specialist, and current certifications/programs that define specialty.

3. Describe the roles and responsibilities of the athletic trainer practicing within the physician's practice setting.

4. Distinguish components of residency training and how the residency trained athletic trainer can be properly implemented into the health care team to enhance development across all settings of Athletic Training.

For athletic trainers, what are the pathways, avenues, and opportunities for the development of advanced practice skills, leadership roles, specialization, and personal/professional development?





Dan Dobrowolski DAT, LAT, ATC, OTC

- 2019 Carthage College Bachelor's Athletic Training
- 2021 Indiana State University Doctorate in Athletic Training
- Current St. Luke's University Health Network Orthopedic Athletic Training Resident
- Previous research, currently under review "Motivating Factors Influencing Athletic Trainers Pursuing Residency Training"
 - Previous abstract presentation at VNATA 2021



Chris Servian LAT, ATC, BCS-O, OT-SC

- 2015 East Stroudsburg University of Pennsylvania graduate in Athletic Training
- 2018 St Luke's University Health Network Athletic Training Residency in Orthopedics graduate
- St. Luke's University Health Network core faculty member and preceptor.
- Currently work in the physician practice setting with Dr. Nicholas Avallone assisting in both the clinic as well as in the surgical setting.
- Among the first cohort to achieve the BCS-O credential

Background

- The educational preparation of the athletic trainer will be enhanced when the 2020 standards are fully implemented and the full transition to master's preparation at the entry level is complete.¹
- Becoming leaders in clinical practice within different athletic training settings requires that knowledge and skill gaps are effectively addressed and navigated with guided development and focused experiences.²



Background

As healthcare is beginning to understand the value and role of the athletic trainer, it is increasingly important for athletic trainers to properly trained with the knowledge and skills to enhance efficiency and quality of patient care within their specialization, setting, and role.³



Background





- This presentation will address advancements of education and professional development for athletic trainers, how it impacts the roles of an athletic trainer, and its correlation to specialty training and professional development in other healthcare professions.
- Residency preparation will be analyzed in depth along with the core foundations of graduate medical education that promote growth toward expertise in accordance with CAATE standards.^{1,2}
- The development toward specialty certification in the field of athletic training will be discussed as a vital component to the progression of the profession.

Professional Development

- As the profession continues to advance, a need for leaders in the form of advanced practice clinicians and clinical specialists in specific content areas has proliferated.
- Preparing athletic trainers to assume these roles in complex systems is of extreme importance and requires training or development of education and skills beyond professional level education.



Professional Development

This preparation can be attained through the pathways. The most effective avenue of preparing advanced practice leaders and clinical specialists is through the delivery of current content knowledge, development of expertise, and the skills to maintain specialty in the ever-evolving landscape of healthcare.

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What are my options?

Continuing Professional Development

Doctorate in Athletic Training

Residency

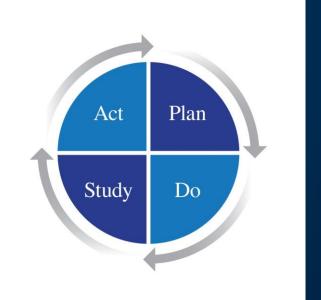
These avenues consist of the post professional masters, doctorate in athletic training, residency, and self-guided professional development planning. Each pathway is designed to provide athletic trainers with experiences that are targeted towards programmatic and individual goals and outcomes that focus on systems-based practice and improving athletic trainer's ability to function within the overall scope of health care.

Postprofessional Master's

PhD

What is Continuing Professional Development?

- Continuing professional development planning is the most common form of professional development within the profession.
- This specific pathway focuses on the identification of goals and processes to improve the current practice of the athletic trainer through either selfguided or mentor guided planning and action.
- This process can look different for every AT but should be designed and focused on the foundations of quality improvement practices to drive the development of the athletic trainer in regard to their own specific goals and values.



Post-Professional Master's Degree

Designed for the development and enhancement of clinical skills and areas of focus.

Transition to professional-level Master's

AT vs. Non-AT



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Doctorate in Athletic Training



What is a DAT degree?

 The doctorate in athletic training pathway, is a post professional clinical doctorate designed to provide an already licensed and practicing clinician with further specialization or expertise.

Goals

- The primary goal of the clinical doctorate across all programs is to develop clinicians in regard to advanced practice leadership.
- Programs have several different content areas and delivery.



DAT Motivators Literature

- This degree is not viewed as a transition to practice degree. This pathway most similarly compares to nursing where it is suggested that advanced practice nurses obtain their education at the doctoral level in the form of the DNP.
- Applicants chose to pursue DAT degrees for the following reasons:



What is a PhD degree?

Goals and objectives

- The PhD/EdD pathway is an avenue for athletic trainers to become involved in academia within the profession of athletic training.
- These doctoral research degrees provide athletic trainers with the skills to:
 - Answer questions within the profession
 - Develop athletic training education programs
 - Serve as faculty members
 - Develop curricula
 - Create new knowledge
 - Find innovative solutions to problems the profession faces.



Specialization

What is specialization?

The process of concentrating on and becoming an expert in a particular subject or skill.

How is specialization achieved?

- The CAATE has established 8 content areas in which athletic trainers can become specialists. Additionally, the BOC has developed an orthopedic specialist certification that athletic trainers can attain upon the development of their specialization.
- Specialization is achieved through residencies.
- Specialization can also be achieved through appropriate self guided professional development and focused mentorship.

What is a Residency?

- The residency pathway is a combination of focused clinical and didactic experiences that are designed to create and develop <u>clinical specialists</u> through standards set forth by the CAATE that are confirmed through accreditation.
- Integration of <u>habits of practice-based learning and improvement</u> that drive practice forward towards <u>expertise</u> throughout the career.

Three pillars of residency

- clinical development
- structured didactic curriculum
- scholarship



Residency Goals

- To develop specialists with habits of practicebased learning and improvement to drive towards expertise throughout their career.
- Residencies will also be able to demonstrate knowledge, skills and abilities of the 6 core competencies of the ACGME.
- Demonstrate measurable improvements of the resident professionally and clinically with focused mentor and self evaluation.

CAATE Areas of Specialization

- Prevention and Wellness
 Urgent and Emergent care
 Primary Care
 Orthopedics
 Rehabilitation
 Behavioral Health
- Pediatrics
- Performance Enhancement



Residency Structure

Residencies will follow ACGME guidelines for execution.

- 80% of the 40 hour clinical practice work week within specialty or subspecialty
- 500 total hours of mentor time within specialty or subspecialty
- 260 additional hours of planned didactic education or 5 hours per week

CAATE Core Competencies	CAATE	ACGME Core Competencies
1. Patient-centered Care	3	1. Medical Knowledge
2. Interprofessional Education and Collaborative Practice	1, 2	2. Patient Care and Procedural Skills
3. Evidence-based Practice	2, 6	3. Professionalism
4. Quality Improvement	1, 3	4. Interpersonal and Communication Skills
5. Healthcare Informatics	3, 4	5. Practice-based Learning and Improvement
6. Professionalism	2, 4, 5	6. Systems-based practice

ACGME Competencies

- Patient care and procedural skill
 - Provide compassionate, appropriate and effective treatment of health problems.
- Medical knowledge
 - Knowledge of medical, clinical epidemiological and social behavior sciences, focused around patient center care.

Practice-based learning and improvement

- Ability to investigate and evaluate their ability to care for patients and to appraise scientific evidence. This also involves self-reflection and evaluation to supplement lifelong learning.
- Interpersonal and communication skills
 - Demonstrate interpersonal and communication skills for effective exchange and collaboration with patients, their families, and other healthcare professionals.
- Professionalism
 - Demonstrate commitment to professionalism and high ethical standards.
- System Based Practice
 - Understanding and effectively navigating and comunicating within the system.

Practice-based learning and improvement

Deliberate Practice

 Highly structured activities explicitly directed at improvement of performance in a particular domain.

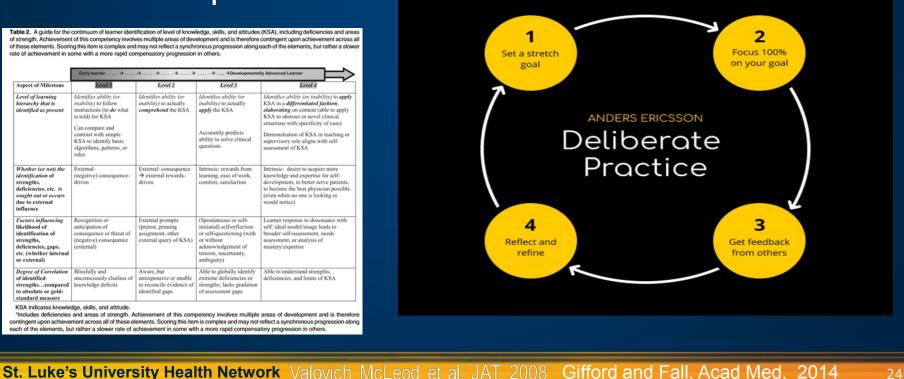
Residency training optimizes the conditions for deliberate practice.

Table 2. A guide for the continuum of learner identification of level of knowledge, skills, and attitudes (KSA), including deficiencies and a of strength. Achievement of this competency involves multiple areas of development and is therefore contingent upon achievement across all of these elements. Scoring this item is complex and may not reflect a synchronous progression along each of the elements, but rather a slower rate of achievement in some with a more rapid compensatory progression in others

	Early learner								
Aspect of Milestone	Level 1	Level 2	Level 3	Level 4					
Level of learning hierarchy that is identified as present	Identifies ability (or inability) to follow instructions (to do what is told) for KSA Can compare and	Identifies ability (or inability) to actually comprehend the KSA	Identifies ability (or inability) to actually apply the KSA Accurately predicts	Identifies ability (or inability) to apply KSA in a differentiated fashion, elaborating on content (able to apply KSA to abstract or novel clinical situations with specificity of case)					
	contrast with simple KSA to identify basic algorithms, patterns, or rules		ability to solve clinical questions	Demonstration of KSA in teaching or supervisory role aligns with self- assessment of KSA					
Whether (or not) the identification of strengths, deficiencies, etc. is sought out or occurs due to external influence	External: (negative) consequence- driven	External: consequence → external rewards- driven	Intrinsic: rewards from learning, ease of work, comfort, satisfaction	Intrinsic: desire to acquire more knowledge and expertise for self- development, to bettre serve patients, to become the best physician possible (even when no one is looking or would notice)					
Factors influencing likelihood of identification of strengths, deficiencies, gaps, etc. (whether internal or external)	Recognition or anticipation of consequence or threat of (negative) consequence (external)	External prompts (pretest, priming assignment, other external query of KSA)	(Spontaneous or self- initiated) self-reflection or self-questioning (with or without acknowledgement of tension, uncertainty, ambiguity)	Learner response to dissonance with self: ideal model/image leads to broader self-assessment, needs assessment, or analysis of mastery/expertise					
Degree of Correlation of identified strengthscompared to absolute or gold- standard measure	Blissfully and unconsciously clueless of knowledge deficits	Aware, but unresponsive or unable to reconcile evidence of identified gaps	Able to globally identify extreme deficiencies or strengths; lacks gradation of assessment gaps	Able to understand strengths, deficiencies, and limits of KSA					

KSA indicates knowledge, skills, and attitude

*Includes deficiencies and areas of strength. Achievement of this competency involves multiple areas of development and is therefore contingent upon achievement across all of these elements. Scoring this item is complex and may not reflect a synchronous progression along each of the elements, but rather a slower rate of achievement in some with a more rapid compensatory progression in others.



Practice Based Learning and Improvement

- Deliberate Practice Elements
- 1. <u>Highly motivated learners</u> with good concentration.
- 2. <u>Well-defined learning objectives</u> that address knowledge or skills that matter clinically.
- 3. <u>Appropriate level of difficulty</u> for the medical learners.
- 4. <u>Focused, repetitive practice of knowledge or skills.</u>
- 5. Rigorous <u>measurements</u> that yield reliable data.
- 6. Informative <u>feedback</u> from educational sources (e.g., mentors, simulators).
- 7. Frequent monitoring and error correction that <u>continually refines</u> and optimizes practice.
- 8. Performance <u>evaluation</u> toward reaching a mastery standard.
- 9. <u>Advancement</u> toward the next clinical task.





General Competency (e.g., Medical Knowledge): Sub-Competency Stated (Reference to corresponding ACGME milestone)											
Critical Deficiencies	Level 1		Level 2		Level 3 (Ready for Unsuper Practice)	vised	(Read	Level 4 ly for Advanced Pra	actice)		Level 5 (Aspirational)
Behaviors are not within the spectrum of developing competence Significant deficiency in learner performance	What are the expectations fo beginning learn	or a mile her? learn adva begi perfo suffi unsu prac Wha learn well	t are the stones for a her who has unced beyond nner, but is r orming at a le cient for upervised tice? t should the her be able to at this point training?	d not V evel k a c c o do	What does a grad of a professional program look like What additional knowledge, skills, attitudes have the obtained? Are they ready for certification?	? and ?y	reside What know attitu obtai	does a graduat ent look like? additional ledge, skills, and des have they ned? hey ready for alty certificatior	d	exper What encor	does clinical tise look like? are stretch goals to urage continued ession towards ery?
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Comments:											

Novice Advanced beginner Competent Proficient Expert

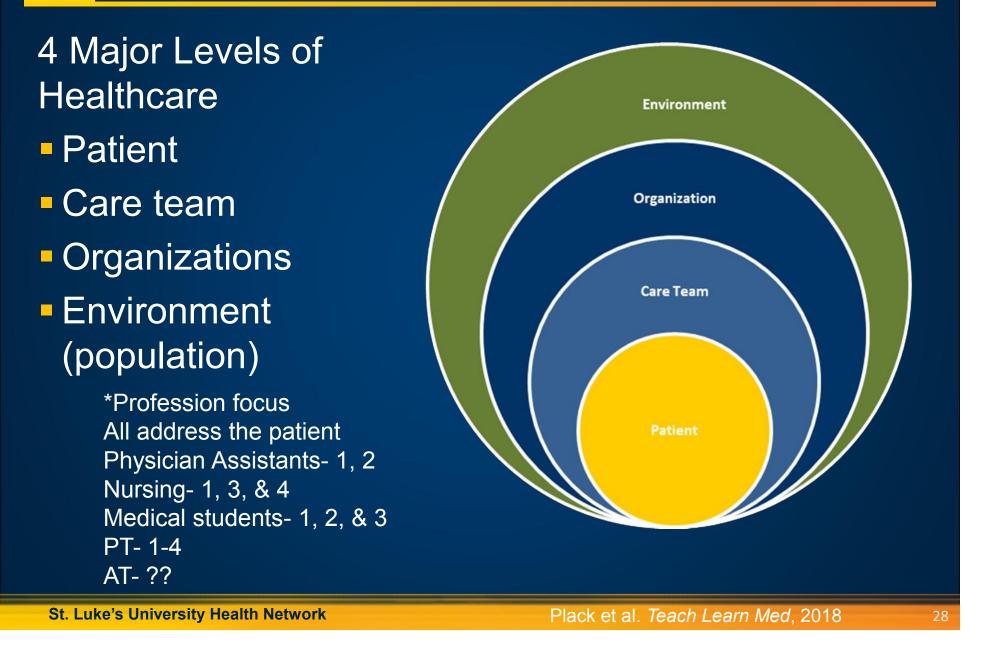
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Systems-Based Practice

Professional accountability; understanding both individual and team responsibility

- Ensures high function and effecting work environment to improve patient care delivery.
- Difficult to implement and measure
- Systems thinking is defined as the ability to analyze systems as a whole
 - Recognize essential interrelationships within system and subsystem and be able to effectively communicate within that system.

System Based Practice



BOC Specialty Certification

BCS-O: Board Certified Specialist in Orthopedics
Voluntary exam to verify mastery of advanced knowledge, skills, and experience with the specialized area of clinical practice of orthopedics.



Pathways to Eligibility

Pathway 1

- Successful completion of a CAATE accredited residency in Orthopedics from 2012 and forward
- 2 years of practice experience

Pathway 2

- 4 years or 3500 hours practice experience
 - 1200 hours must be in a mentored relationship
 - 1000 hours must be completed within 1 year of exam application
- 260 hours of professional development
 - Continuing education, Journal clubs, Grand Rounds

BCS-O Examination Domains

Medical Knowledge

- Form D/D by interpreting hx
- Focused based exam using EBM to form D/D
- Determine appropriate testing based in hx and exam
- Synthesize findings of exam and studies to determine dx
- Form POC in collaboration if interdisciplinary team and Pt.
- Analyze outcomes

Procedural Knowledge

- Execute POC with advanced clinical decision making with modifications for optimal outcome
- Pre procedural care
- Intra procedural care
- Post procedural care
- Pre operative
- Intra operative
- Post operative

Professional Practice

- Patient centered process
- Quality care programs
- Value based care
- Cost containment to improve outcomes
- Collaboration with interdisciplinary team
- Professional Development
- Reflective practice



How to prepare for the BCS-O

- Residency training/create an accredited residency
- Develop your portfolio (Research, etc.)
- Integrate PBLI
- Self Assessment (Needs assessment on BOC site for exam)
- Target your professional development
- Attend physician conferences
- Identify mentors (Physicians, PA-C, Experienced ATs)
- Understand the system
- Educate stakeholders
- Collect data
- Refine quality improvement

Why is BCS-O Important?

- Provides Athletic Trainers a measurable standard to demonstrate advanced knowledge and specialization in Orthopedics.
- Demonstrates that the Athletic Trainer can provide quality patient centered care, and understands systems-based practice.
- Demonstrates a persistent pursuit of clinical and professional improvement with aspirations of becoming and expert.



Professional Development Pathways							
CPM	PPM	DAT	PhD	Res			
Designed and focused on the foundations of quality improvement practices to drive the development of the athletic trainer.	Designed for the development and enhancement of clinical skills and areas of focus.	Develop clinicians in regard to advanced practice leadership.	Avenue for athletic trainers to become involved in academia within the profession of athletic training.	Designed to create and develop <u>clinical</u> <u>specialists.</u>			

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The Bottom Line

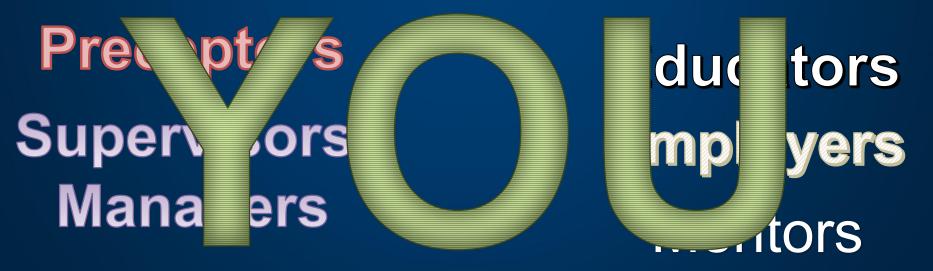
As the profession continues to advance, a need for clinical specialists and advanced practice leaders within specific content areas has emerged to improve efficacy and efficiency within clinical practices, improve patient outcomes, and enhance interprofessional collaborative practice.



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The Bottom Line

Central messaging regarding the role, purpose and goals of the post-professional pathways needs to be consistent. A lack of consistency can be a limiting factor for the growth of post-professional education because ATs may lack the knowledge of these pathways as well as the outcomes of each pathway.





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