Creating a Vision of Excellence:

Best Practices for Clinical Education in the 21st Century

Northwest Intermountain Consortium Clinical Education Annual Conference

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SAMUEL MERRITT UNIVERSITY

INTRODUCTION

Clinical Education: Where are we?

- Pressures and Barriers
  - Clinics and Clinicians
  - Students
  - Academic Programs

3 Initiatives

- PTE-21: Physical Therapist Education for the 21st Century: A National Study of Innovation and Excellence in Academic and Clinical Education
- Clinical Education Summit: American Council of Academic Physical Therapy
- Best Practices for Physical Therapist Clinical Education

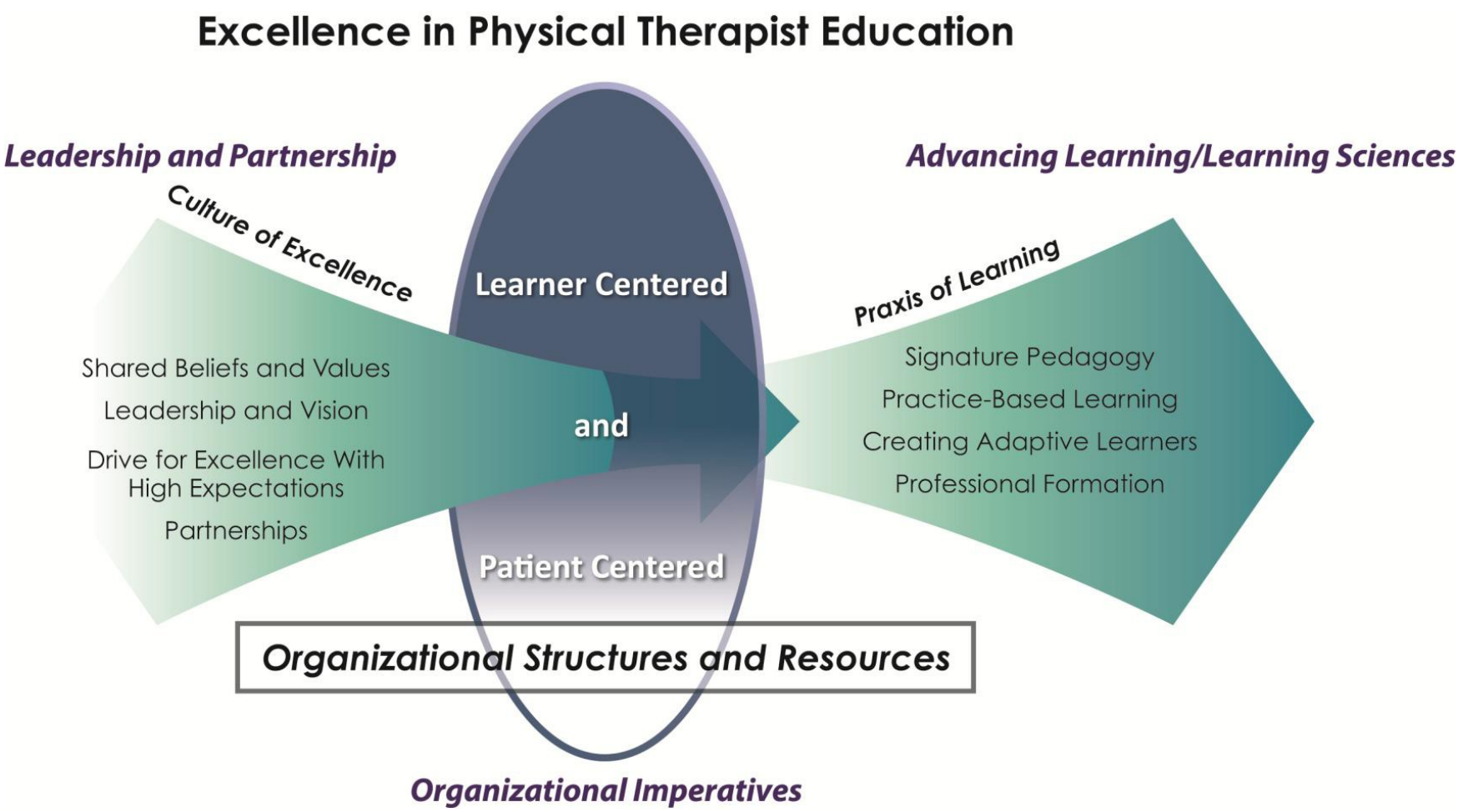
PTE-21 RESEARCH TEAM

Gail M. Jensen, PT, PhD, FAPTA, Creighton University
Elizabeth Mostrom, PT, PhD, Central Michigan University
Laurita M. Hack, DPT, MBA, PhD, FAPTA, Professor Emeritus, Temple University
Terrence Nordstrom, PT, EdD, FAPTA, Samuel Merritt University
Janet Gwyer, PT, PhD, FAPTA, Duke University

PTE-21

- **Background.**
  - Modeled on the Carnegie Foundation for the Advancement of Teaching Preparation for the Professions Program, a qualitative study of professional education in 5 professions: medicine, nursing, law, engineering, and clergy.
  - The physical therapy profession has not had any in-depth, national investigation of physical therapist education since the Catherine Worthingham studies conducted more than 50 years ago.
- **Objectives.**
  - To investigate elements of excellence and innovation in academic and clinical physical therapist education in the United States.
- **Design.**
  - Five physical therapist education researchers from across the United States used a qualitative multiple-case study design.
- **Methods.**
  - Six academic and 5 clinical programs were selected for the study. The academic institutions and clinical agencies studied were diverse in size, institutional setting, geography, and role in residency education. Qualitative case studies were generated from review of artifacts, field observations, and interviews (individual and focus group), and they provided the data for the study.

RESULTS & CONCLUSIONS



POLICY RECOMMENDATIONS

- Transforming physical therapist education
  - 30 recommendations that can be enacted by individual faculty and individual institutions
  - 9 action items that require systemic change through collaboration of the entities in physical therapist education, particularly APTA, the Education Section, ACAPT, and CAPTE

Jensen GM, Nordstrom T, Mostrom E, Hack L, Gwyer J.
National Study of Excellence and Innovation in Physical Therapist Education, Part 1—Design, Method, and Results.
Phys Ther. 2017;97:857–874.

Jensen GM, Hack L, Nordstrom T, Gwyer J, Mostrom E.
National Study of Excellence and Innovation in Physical Therapist Education: Part 2—A Call to Reform.
Phys Ther. 2017;97:875-888

American Council of Academic Physical Therapy

Clinical Education Summit

October 12-13, 2014, Kansas City, MO

Summit Report and Recommendations

Summit Supporting Organizations

AMERICAN COUNCIL OF ACADEMIC PHYSICAL THERAPY

APTA American Physical Therapy Association

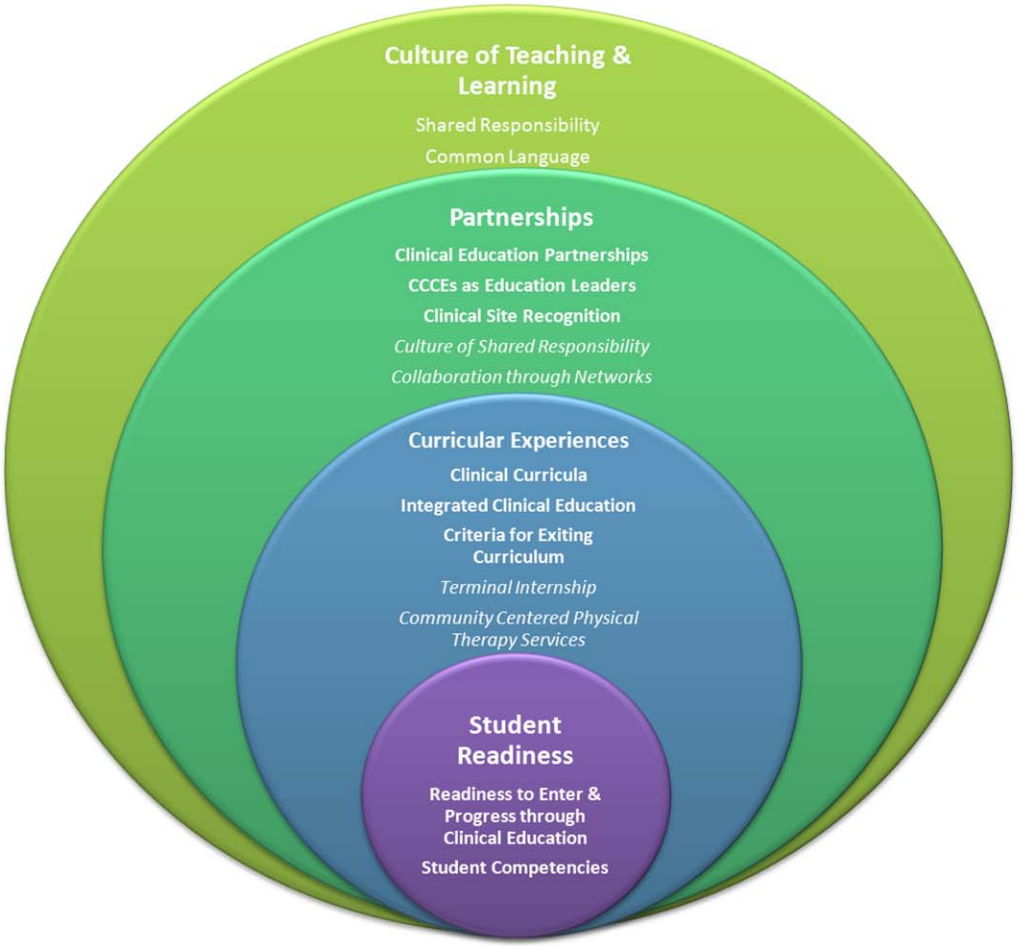
fsbpt

JOURNAL OF PHYSICAL THERAPY EDUCATION

EDUCATION SECTION American Physical Therapy Association

SUMMIT VISIONING PROCESS

Harmonization Recommendations



Recommendations Diagram Note: The proposed recommendations offer a systemic and interconnected approach to strengthening clinical education. A culture of teaching and learning will be the basis of strong partnerships and quality curricular experiences that achieve student readiness. The harmonization recommendations appear in **bold***;* the innovation recommendations are in *italics.*

BEST PRACTICE FOR PHYSICAL THERAPIST CLINICAL EDUCATION (RC 13-14)

ANNUAL REPORT TO THE 2017 HOUSE OF DELEGATES

EXECUTIVE SUMMARY

In 2014, the House of Delegates approved 2 motions specific to investigating the future of physical therapist education: *RC 12-14: Promoting Excellence in Physical Therapist Professional Education*, and *RC 13-14: Best Practice for Physical Therapist Clinical Education*. In response to RC 12-14, The APTA Board of Directors (Board) established the Excellence in Physical Therapist Education Task Force (EETF) that presented 8 recommendations to the Board in 2015. At its November 2015 meeting, the Board approved the recommendations forwarded by the EETF, which included establishment of the Education Leadership Partnership as the vehicle to address those recommendations. Similarly, in response to RC 13-14 the Board created the Best Practice for Physical Therapist Clinical Education Task Force (BPCETF). The work of the BPCETF began in January 2016 and concluded in January 2017.

3 Principle Challenges

1. A comparison of current clinical education models suggested that inadequate clinical education and postgraduate professional development experiences contribute to unwarranted variation in physical therapist practice;
2. The overall capacity for clinical education placements is limited, leading to competition among physical therapist academic programs; and,
3. Economic factors affecting academic institutions, students, and facilities providing clinical education experiences significantly impact clinical education.

3 Initiatives in the Profession

WHAT DID THEY RECOMMEND?

Values & Mission

PTE-21	Best Practices Task Force	Clinical Ed Summit
• Shared values of mutual trust, respect & collaboration • Dual values of learner-centered teaching and patient-centered care • Include professional & post-professional education in the mission of clinical sites		

Partnerships

PTE-21	Best Practices Task Force	Clinical Ed Summit

• *Create strong, equal academic-practice partnerships that foster excellence*
• Create, develop, and support fair, creative and responsible partnerships
• Move to a fully integrated, practice-based learning model with the clinical faculty as full partners
• Recognize unique responsibility of academic programs to partner w/ community to develop programs that place positive health outcomes in the community as 1° focus
	• Develop a framework for formal partnerships between academic programs and clinical sites…
	  • Clinical supervision
	  • Clinical instructor training
	  • Communication
	  • Evaluation plan
		• Academic and clinical institutions will partner to provide best practices in clinical education...
		  • Mutual sharing of information
		  • Flexible and customized
		  • Shared responsibility for clinical education at administrative levels.

Structure, Plan, Design

PTE-21	Best Practices Task Force	Clinical Ed Summit
• Require early authentic clinical experiences • Develop models of learning environments across academic and clinical settings centered on practice-based learning • Require academic programs to participate in residency education	• Formal preparation for practice includes professional education, followed by an internship, mandatory post-professional residency, and staged licensure • Structured clinical education curriculum… • Min/Max time • Role & structure for clin ed w/in didactic phase • Essential clinical education settings, experiences, and patients • Role of simulation • Residency • Standardize schedules, etc.	• Common language and terminology • Clinical curriculum that develops a generalist not constrained by setting or length • All programs offer goal oriented, diverse active learning experiences embedded w/in didactic curriculum prior to terminal experiences • Terminal internship results in generalists who meet entry level criteria • *Networks for collaboration* • *Models for terminal internship that consider competencies*

Structure: Finance/Money

PTE-21	Best Practices Task Force	Clinical Ed Summit
• *Take action to demonstrate and increase value of clinical education* • Use reasonable productivity standards that recognize CI/Student team • Articulate financial and other benefits from clinical education	• Clinical education includes • Unique professional identifier • National matching system • Outcomes of care through registries • Data entry and management systems	

Faculty Development

PTE-21	Best Practices Task Force	Clinical Ed Summit
• *Infuse learning sciences into preparation of all faculty* • Faculty development programs focus on teaching & learning strategies in the learning sciences		• Academic and clinical sites partner to provide continual development and support of clinical educators

Learner Performance

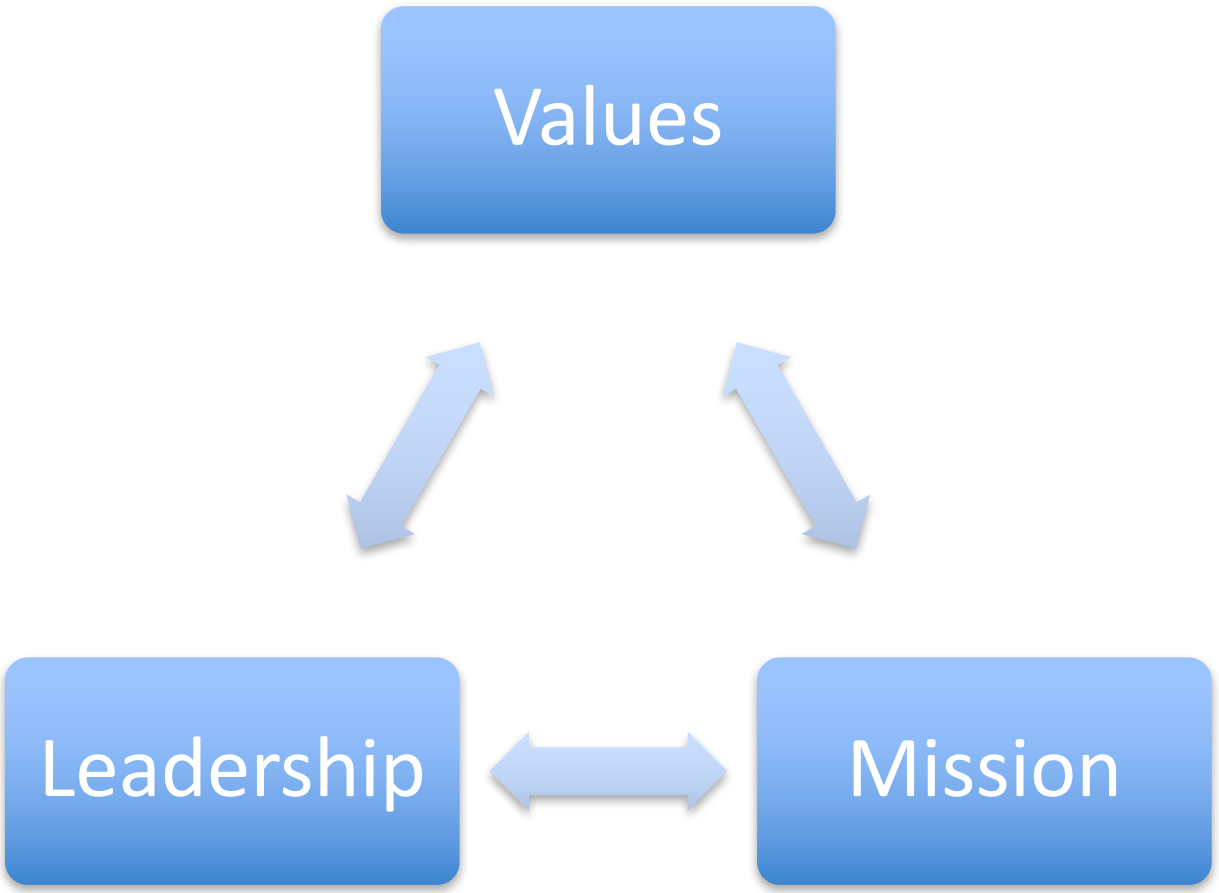
PTE-21	Best Practices Task Force	Clinical Ed Summit
• Develop continuum of learner performance expectations grounded in key competencies • Comprehensive, longitudinal approach for standardization of performance based learning outcomes across the learner continuum • Establish explicit development of learners' clinical reasoning skills • Develop moral courage & ability to respond to substandard practice in all PT	• Structured clinical ed curriculum that… • Define essential competencies for transition to entry-level practice • Standardized tools for measurement of competencies • Framework that includes student readiness to enter each stage of clinical education	• Student readiness to enter & progress through clinical education • Entry-level criteria for exiting curriculum

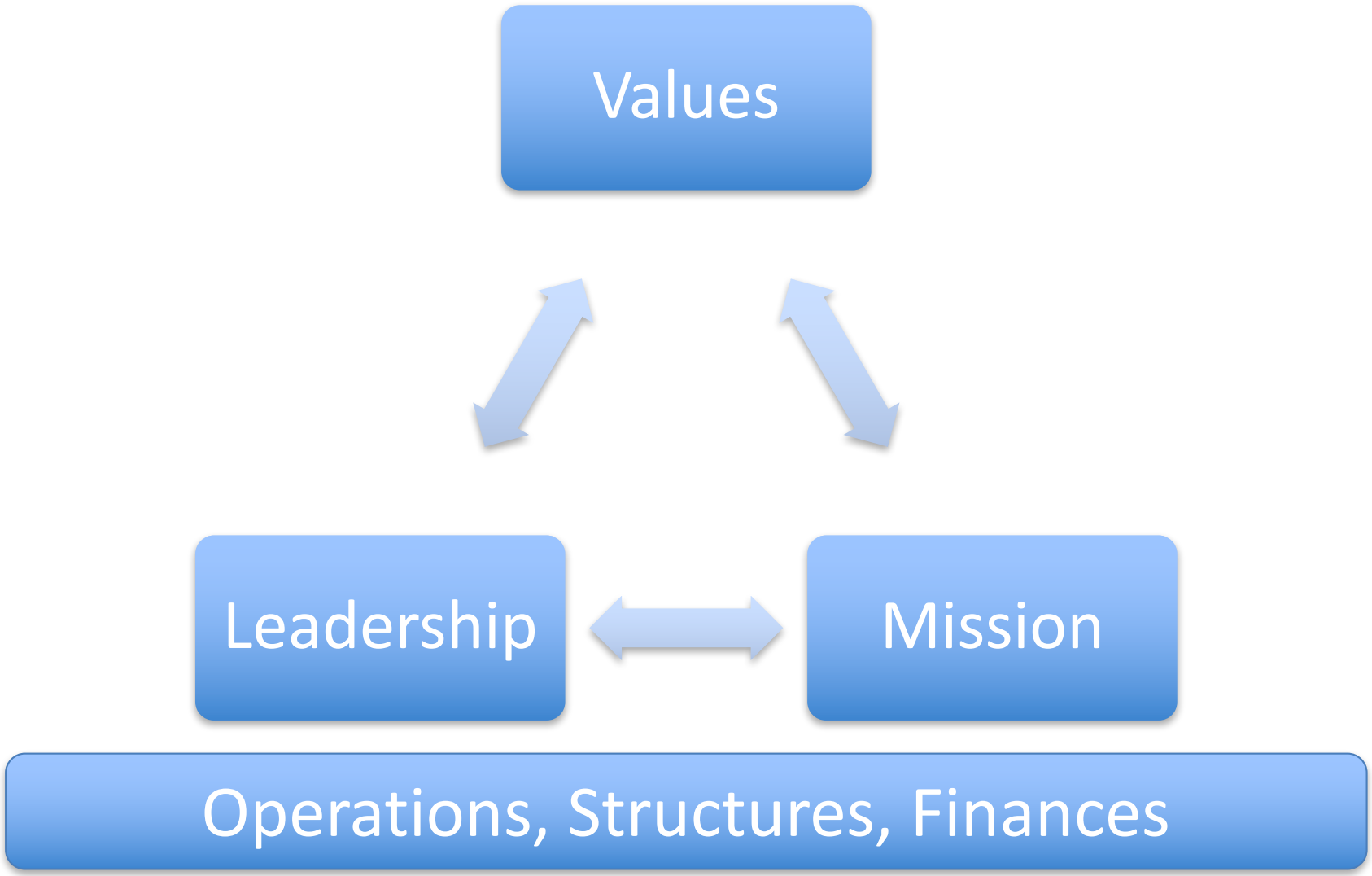
Education Research

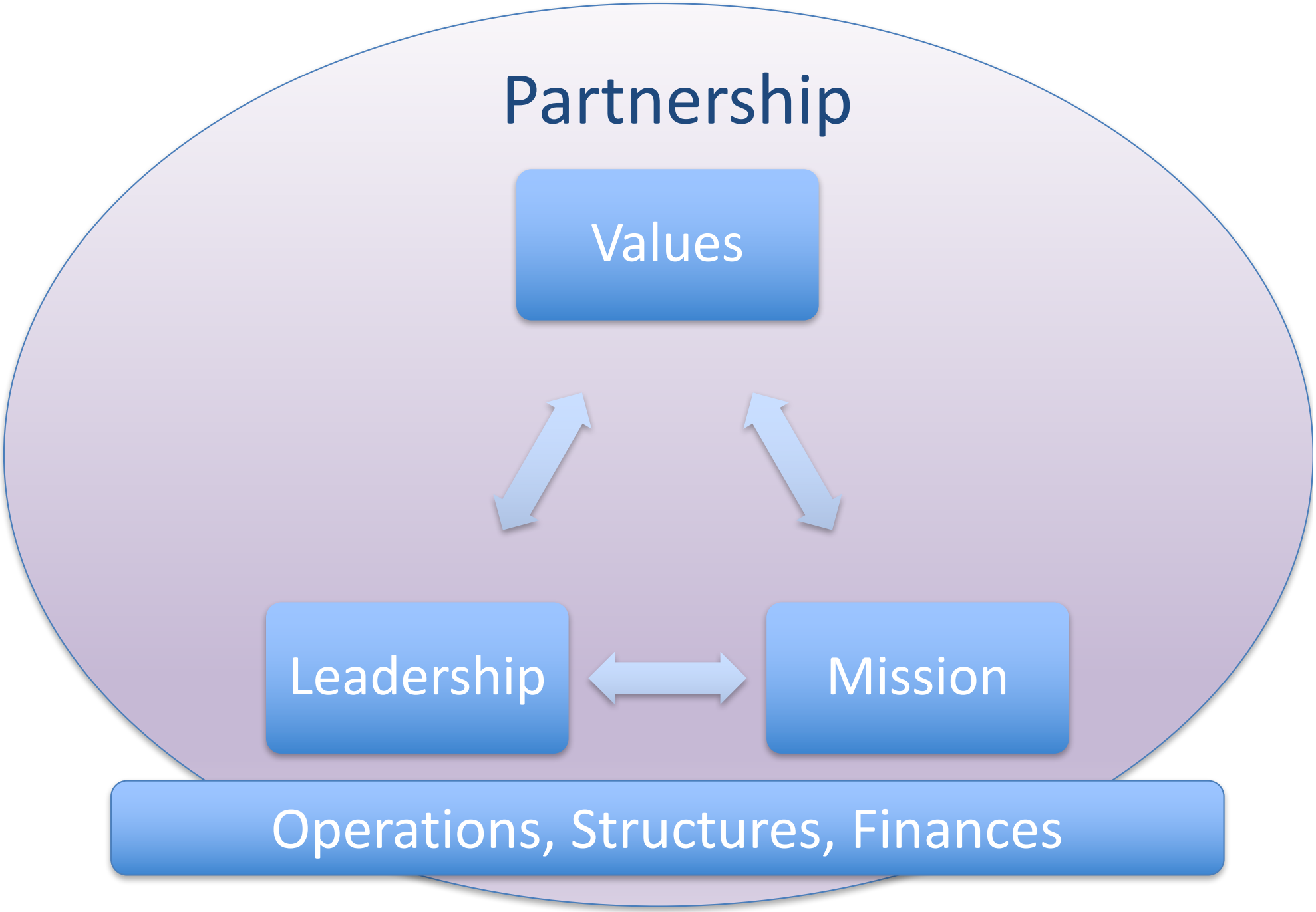
PTE-21	Best Practices Task Force	Clinical Ed Summit
• PTE-21 recommendations and actions, taken as a whole, are intended to frame the needs for education research	• That the profession's prioritized education research agenda include a line of inquiry specific to clinical education	

Given all of this…

WHAT NOW?


Values
Leadership
Mission


Values
Leadership
Mission
Operations, Structures, Finances


Partnership
Values
Leadership
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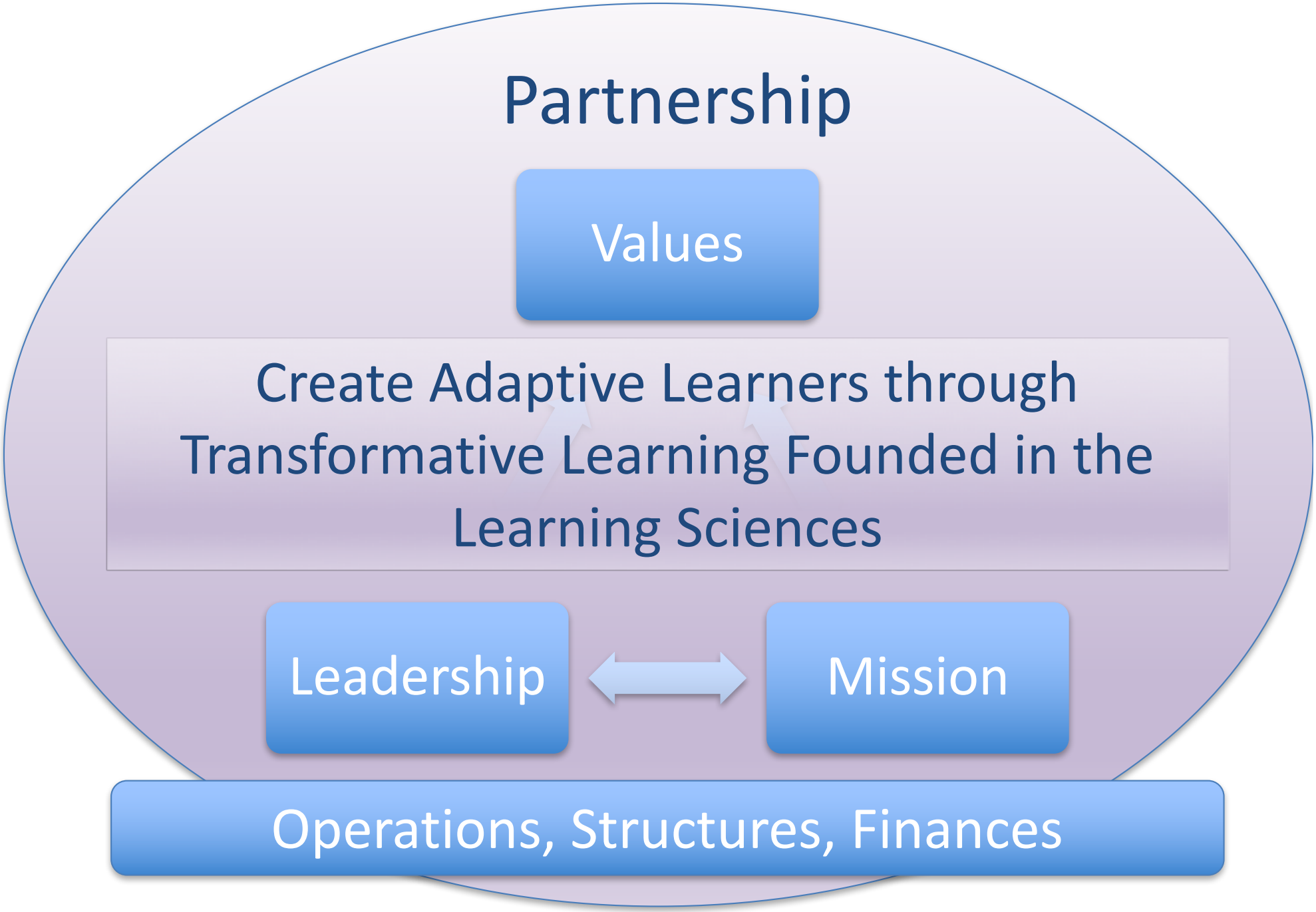
Operations, Structures, Finances


Partnership
Values
Create Adaptive Learners through Transformative Learning Founded in the Learning Sciences
Leadership
Mission
Operations, Structures, Finances

Selected References

- Cuter WB, Miller B, Pusic M, Mejicano G, Mangrulkar et al. Fostering the development of master adaptive learners: a conceptual model to guide skill acquisition in medical acquisition. Acad Med. 2017;92:70-75.
- Frenk J, Chen L, Bhutta ZA, et al. Health professionals for a new century: transforming education to strengthen health systems in an interdependent world. Lancet. 2010; 376:1923-58.
- Kezar A, Carducci R, Contreras-McGavin M. Rethinking the ”L” word in higher education. ASHE Higher Education Report 2006. (31)6. K Ward, LE Wolf-Wendel series editors.
- Schumacher D, Englander R, Carraccio C. Developing the master learning: applying learning theory to the learner, the teacher, and the learning environment. Acad Med. 2013;88:1635-1645.

Table: Comparison of Recommendations Regarding Clinical Education by Category

Category	PTE-21[1]	Best Practices in Clinical Education Task Force[2]	ACAPT Clinical Education Summit[3]
Values	1. *Cultivate and make explicit the shared values within the learning community that will create a drive for excellence in education. Do so by strengthening the mutual trust, respect, and collaboration for all members of the community; particularly the learners.* 2. *Demonstrate the dual values of:* a. *learner-centered teaching, focusing on the needs, skills and interests of the engaged learner; and* b. *patient-centered care, focusing on the needs, interests, and goals of the patient, across all educational venues, whether in academic or clinical settings.* *29. Include professional and postprofessional education in the missions of clinical education sites. All clinicians at clinical education sites should recognize the need to contribute to clinical education, either by direct teaching, or by supporting the CI/student team.*		
Partnership	2. Create strong, equal academic-practice partnerships that foster excellence (Action Item) *7. Create, develop and support fair, creative, and responsible partnerships between academic and clinical organizations in both clinical and classroom teaching: educational programs can't exist in isolation and be excellent* *8. Move from an uneven model for clinical learning, where there are not true partnerships, to a fully integrated, practice-based learning model with the clinical faculty as full partners with the academic*	RECOMMENDATION 3: That a framework for formal partnerships between academic programs and clinical sites be developed that includes infrastructure and capacity building, and defines responsibility and accountability for each (ie, economic models, standardization, sustainable models, etc.). Infrastructure and capacity must be developed across all stages of clinical education, to include: • Models of clinical supervision (eg, trainee to instructor ratios, academic faculty as preceptors);	II. Clinical Education Partnerships Recommendation: Academic and clinical institutions will partner to provide best practices in clinical education. Implementation Steps: Establish formal partnerships and mutual sharing of information among clinical, academic, and administrative leaders engaged and contributing to curricular development. These partnerships can be flexible and customized for each institution and partner. Provide multiple options/opportunities for engagement

Category	PTE-21[1]	Best Practices in Clinical Education Task Force[2]	ACAPT Clinical Education Summit[3]
	program. The practice-based learning model requires clinical faculty to become full partners in the academic program, and fully integrated clinical learning spaces must be accessible to students and faculty. 21. *Recognize the unique responsibility as academic programs to partner with the community in developing and implementing programs that place positive health outcomes to the community as their primary focus.*	• Mandatory clinical instructor training, certification, and recertification; • Effective communication among all stakeholders across all phases of clinical training; • A comprehensive evaluation plan for clinical education.	(webinars, surveys) that are inclusive and flexible enough to serve both major medical institutions and smaller facilities, such as small clinics and community-based sites. Acknowledge the Center Coordinator of Clinical Education (CCCE)/ institution/practice through possible joint positions or faculty appointment. *I. Culture of shared responsibility for clinical education, Administrative levels.* *Develop, define and facilitate a model for bidirectional relationships between clinical organizations and academic institutions in order to communicate, educate and assess the benefits of sustainable clinical education for all stakeholders. Form a shared commitment to assess the value of clinical education for all stakeholders through aggregation of current evidence and further research.* *IV. Innovative community-centered physical therapy services.* *Building on current models, discover, develop and test innovative community-centered physical therapist services that can be integrated into physical therapist professional education to meet societal needs.*
Structure/ Plan/ Design	10. *Require early authentic clinical experiences, which are essential for teaching and learning through our signature pedagogy in the context of practice and make signature pedagogy more evidence-based, explicit, and visible in all learning environments.* 13. *Develop models of learning environments across academic and clinical settings centered on practice-based learning with clear visibility of active clinical teaching,*	RECOMMENDATION 1: That formal preparation for practice includes physical therapist professional education, followed by a clinical internship and mandatory postprofessional residency, and is accomplished through a process of staged licensure and specialty certification. RECOMMENDATION 2:	I. Common Language for Communication Recommendation: Academic and clinical faculty will develop, disseminate, use, and periodically review standard terminology and definitions for physical therapy education VI. Clinical Curricula Recommendation: The physical therapist program should have clinical curriculum

Category	PTE-21[1]	Best Practices in Clinical Education Task Force[2]	ACAPT Clinical Education Summit[3]
	classroom/ lab teaching, research, and practice. The situated learning that is central to practice-based learning needs to be intentionally structured and sequenced and occur early, often, and continuously. 14. *Require academic programs to participate in residency education, as it provides essential opportunities for interaction, mutual reflection, and reciprocal teaching and learning between professional and postprofessional learners in communities of practice.*	That a structured physical therapist clinical education curriculum that includes, but is not limited to, the following elements be developed and implemented: • Determination of a minimum and maximum amount of full-time clinical education that can be integrated into the didactic phase (prelicensure) of physical therapist professional education. Once determined, this standard shall be universally adopted; • Define the role and structure for clinical education experiences within the didactic phase of physical therapist professional education programs; • Define essential clinical education settings, experiences, and exposure to patient and client populations that shall be required for all physical therapist students in the didactic phase of physical therapist professional education programs Define minimal student competencies required for engaging in integrated full-time clinical education experiences during professional education and postgraduate clinical internship phases, including knowledge, skills, and behaviors; • Define the roles of simulation and learning technologies as part of clinical education in the phase of professional education; • Enhance existing residency and certification processes to complement the total of the professional education and postgraduate clinical internship phases; • Identify opportunities for standardization of clinical rotation schedules, onboarding requirements, or other factors that may influence program and site capacities and efficiencies.	that develop a generalist, not constrained by setting or length. Implementation steps: We recommend a model for tiered clinical education experience with specific objectives and outcomes via collected data to maximize efficiency and effectiveness. The total number and total combined length of clinical experiences need to be explored through funded research in order to define a current minimum standard. Examine existing models including how the 30-hour minimum requirement from CAPTE was established. Technology and simulation could be used to implement and/or achieve competencies VII. Integrated Clinical Education (ICE) Recommendation: All programs will offer goal oriented, diverse active-learning experiences that are developed in collaboration with invested stakeholders and embedded within the didactic curriculum, prior to terminal experiences. Implementation steps: Consider multiple models including addressing online, part-time and simulations. Definitions are needed to clarify concepts within ICE. Some elements should be common to all ICE experience. Perhaps ICE could be competency-based with each program having the flexibility in how competencies are taught. However, ICE should be managed and structured by academic programs and partner clinic sites. VIII. Terminal Internship

Category	PTE-21[1]	Best Practices in Clinical Education Task Force[2]	ACAPT Clinical Education Summit[3]
			Recommendation: Terminal internship models focus on the graduation of generalists who meet entry level criteria. Identify/define what the minimum expectations are for a generalist ready to enter the profession. What is a competency-based level of performance for the generalist? *II. Collaboration through networks.* *Establish demonstration projects to explore possible models for networks that create grassroots partnerships of teaching between clinical learning environments and academic institutions to promote excellence in clinical teaching, coordinated models of placements, sharing of information and resources and aligning academic and clinical curricula.* *III. Terminal internship* *Explore, develop and test models for terminal internships that consider competency vs time based structures, minimal length of experience to meet entr-level requirements that includes practice management, impact of length of internship on clinical sites/CI's, settings, advantages/disadvantages of licensure, stipends.*
Structure- Finance and Money	9. Take decisive action to demonstrate and increase the value of clinical education in the profession 28. *Use reasonable productivity standards in clinical education sites that recognize the contribution of the clinical instructor (CI)/student team to patient care with analysis over relatively longer time frames.*	RECOMMENDATION 4: That clinical education be incorporated into the recommendations approved by the Board of Directors that were forwarded to the Education Leadership Partnership regarding education data management systems, and include but not be limited to the following elements:	

Category	PTE-21[1]	Best Practices in Clinical Education Task Force[2]	ACAPT Clinical Education Summit[3]
	30. *Recognize and more clearly articulate the financial and other benefits from clinical education, including savings related to recruitment and retention, and by contributions of students and academic programs to professional development.*	• A unique "professional (secure, or protected) lifetime" identifier is assigned to individuals at the time application or acceptance. • A national clinical education matching program is used for assigning students to clinical education sites. • Outcomes of care provided by physical therapist students/interns/residents are included inpatient/clinical outcome registries. • Data entry and data management systems are interoperable with other data systems relevant to physical therapist education (eg, CAPTE, FSBPT, ABPTRFE, CPI, CSIF). • Data is accessible to researchers, academic programs, regulatory bodies, program evaluators, clinical training sites, and interested parties.	
Faculty Development	3. Infuse the learning sciences into the preparation of academic, clinical, residency, and fellowship faculty 12. *Implement faculty development programs/activities focused on teaching and learning strategies grounded in the learning sciences, as the profession must develop a shared language, understanding of, and competence in the pedagogy of learning for practice. The learning that occurs in the context of practice (situated learning) is powerful and critically important in the development of professionals and should be a central focus of faculty development.*		III. Clinical Faculty Preparation/Development Recommendation: Academic and clinical sites will partner to engage in continual development and support of clinical educators. Implementation Steps: Enlist resources from APTA to revamp CI training (web-based, cost effective). Make judicious use of simulation and other technology. Bring clinical educators in as consultants to help develop clinical teaching training programs. Evaluate CI's through new means such as a post-affiliation survey. Make training for clinical teaching more accessible for CI's. For those not APTA members, give library access. Determine evaluative criteria for CI's. Institutions collaborate with clinical sites to engage in research. Workshops for CPI training

Category	PTE-21[1]	Best Practices in Clinical Education Task Force[2]	ACAPT Clinical Education Summit[3]
			need to be more user friendly (not just web-based version). Revamp CPI (for use with multiple students, etc.). Offer more informal learning/mentoring via use of technology. Offer clinical education models where more advanced students mentor first year students. Establish a two-way communication model between institutions and clinical sites. Create CI specialty certification. Broaden roles of CI's to do more within the academic program- teaching, etc. Create a "CI for a day" experience.
Learner Performance	4. Develop a continuum of professional performance expectations that are grounded in key competencies and support excellence in learner development 15. *Establish a comprehensive, longitudinal approach for standardization of performance-based learning outcomes across the learner continuum that is grounded in foundational domains of professional competence. These learning outcomes will require development of performance-based assessment measures aligned with standardization of learning outcomes that are integrated and cumulative. Adaptive learners assume responsibility for their learning through openness to feedback, self-and situational awareness grounded in strong self-monitoring skills, and a lifelong commitment to learning.* 17. *The profession must establish a comprehensive, longitudinal approach for the explicit development of learners' clinical reasoning skills that spans entry-level through clinical residencies and continues*	RECOMMENDATION 2: That a structured physical therapist clinical education curriculum that includes, but is not limited to, the following elements be developed and implemented: • Define essential competencies for transition into entry-level (restricted license) practice including knowledge, skills, and behaviors; • Develop and implement standardized tools for measurement of expected student competencies at all phases of physical therapist education to ensure that student and graduate competencies are consistent with expected student outcomes; and RECOMMENDATION 3: That a framework for formal partnerships between academic programs and clinical sites be developed that includes infrastructure and capacity building, and defines responsibility and accountability for each (ie, economic models, standardization, sustainable models, etc.). Infrastructure and capacity must be developed	IX. Student Readiness to Enter and Progress through Clinical Education Recommendation: Develop a requisite core set of knowledge, skills, attitudes and professional behaviors to move into early, intermediate and final fulltime clinical experiences. X. Student Competencies Recommendation: Establish a process for identifying how and if students meet clinical core performance competencies upon entering each level of full-time clinical experience. XI. Entry-level Criteria for Exiting Curriculum Recommendation: Commission a work group to explore and articulate a profession-wide definition of entry-level graduate competence, which is contemporary and adaptable to a changing health care environment.

Category	PTE-21[1]	Best Practices in Clinical Education Task Force[2]	ACAPT Clinical Education Summit[3]
	across the therapist's career. This comprehensive approach to clinical reasoning will require that academic and clinical faculty develop robust teaching, learning, and assessment strategies. 19. *Develop the moral courage and ability to respond to substandard practice in all physical therapists. Teaching and learning activities must help physical therapists resist the stresses that can be experienced with meeting these obligations in the reality of practice, and lead to reduction in the level of stress as practice changes to more clearly reflect these obligations. Just as learning in clinical courses must be practice based, so too should the learning experience in these areas be grounded in actual practice, leading to learners who have strong self-monitoring skills and are able to function as moral agents in complex and uncertain situations. (Unwarranted variation in practice).*	across all stages of clinical education, to include: • Student readiness to enter each stage of clinical education;	
Education Research	PTE-21 recommendations and actions, taken as a whole, are intended to help frame the needs for education research in physical therapist education	RECOMMENDATION 5: That the physical therapy profession's prioritized education research agenda include a line of inquiry specific to clinical education.	

[1] Jensen GM, Hack LM, Nordstrom T, Gwyer J, Mostrom E. National study of excellence and innovation in physical therapist education: Part 2- A call to reform. *Phys Ther*. 2017;97:875-888. Numbers correspond to the numbers in the referenced article. Items in red text are action items for the profession.

[2] American Physical Therapy Association. Best Practice for Physical Therapist Clinical Education (RC 13-14). Annual Report to the 2017 House of Delegates. 2017.

[3] Academic Council of Academic Physical Therapy. Clinical Education Summit: Summit Report and Recommendations. 2014. Items in regular font are "harmonizing" recommendations and those in italic font are "innovation" recommendations.