

Recommendations for Enhancing Physical Therapist Education: Academic, Clinical and Residency

From the study: Physical Therapist Education in the 21st Century: Innovation and Excellence in Physical Therapist Education

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PTE-21 RECOMMENDATIONS (draft)

I. Shared Beliefs and Values

Recommendation 1

The faculty should promote shared values for trust, respect and collaboration among the entire community of learners. One of the most commonly shared beliefs is in the effectiveness of a dual focus on patient-centered care and learner-centered education.

Evidence-based themes

1. The academic and clinical faculties move the educational enterprise forward when there is respect for diverse opinions and trust among colleagues.
2. The academic and clinical faculties collaborate in seeking opportunities and overcoming barriers in all aspects of the educational program.
3. The academic and clinical faculties, students and patients share a commitment to teach and model patient-centered care.
4. The academic and clinical faculties value learner-centered education.

The Envisioned Future

While the profession has developed a set of core values, the community of learners has yet to fully engage in the process of identifying and inculcating the shared beliefs that represent excellence in education, research and practice in physical therapy. The need for these strongly shared beliefs is crucial for a compliment of faculty to work together in pursuing excellence, and for learners to adopt the beliefs and values modeled for them. We will know this is happening when the faculty and students are able to clearly express their shared beliefs and values, and when patients have confidence in the consistent and clear message from their clinical practitioners. The importance of forming these shared beliefs during the incubation phase of professional learning is that these beliefs are then moved into the context of professional practice.

While the profession continues to embrace evidence-based practice (to varying degrees), the learning communities in clinical and academic settings need to develop stronger shared beliefs about best practice. Similarly, there needs to be shared beliefs about learner centered education and patient centered care that must be integrated through new pedagogies. That integration can be illustrated in the collaboration of researchers, teachers and clinicians, all interacting with the learners at similar points in time or in a variety of settings.

II. Leadership and Vision

Recommendation 2

The profession should be served by visionary leaders in academic and clinical settings who value shared leadership to create a culture of excellence focused on achieving the program's and institution's mission and advancing the profession's societal responsibilities. There should be intentional development opportunities using diverse means for promising leaders.

Evidence-based themes

1. Shared leadership is the norm and focuses on leveraging the institutional mission to advance the profession's goals and responsibilities to society.
2. Management maximizes all of its resources in a creative way to promote innovation and excellence in academic and clinical education.
3. Leaders intentionally build the internal and external value and reputation of the academic or clinical program within the institution.
4. Leaders build a shared vision for the future.
5. Leaders use systems-based thinking to navigate the complex worlds of practice, education, and research; their thinking extends into the networks of people within and beyond their institutions.

The Envisioned Future

Physical therapist education will prepare practitioners who can thrive in a dynamic, rapidly changing health care system that focuses on the health outcomes for individuals and populations through leveraging technology, addressing the social determinants of health, reducing costs, and improving access to care. The public's expectation for greater accountability throughout higher education will continue and will require attention to improved graduate outcomes, the value of research, the need for reduced cost of education to students and society, and acquisition of the necessary resources for the enterprise.

No one person can effectively lead an educational enterprise in this complex environment, thus leaders of the future in academic and clinical settings will need to have a shared, compelling vision in which practice, education and research mutually reinforce and advance each other based on the leaders' deep understanding of the context of all three. How higher education and clinical institutions respond to environmental pressures will vary markedly, thus, in order to thrive, future leaders and the entire physical therapy profession will keep the profession's core purpose central to their missions. There also will be a shared vision of physical therapist education that will require narrow self-interests to be discarded. In order to create the leaders in practice and education

that are required, leadership development will be an integral component of professional education and ongoing professional learning that becomes more intentional to prepare people for formal leadership roles that will continue to exist.

Currently, there is an insufficient cadre of people with the essential leadership skills and abilities who can succeed in the academic and clinical education environment and that will put both educational and clinical enterprises at risk for failure.

III. Drive for Excellence with High Expectations

Recommendation 3

Academic and clinical programs should be characterized by a culture that continuously pursues improvement where current practices are questioned, innovation is valued, and risk taking is embraced to achieve excellence.

Evidence-based themes

1. There is a relentless pursuit of improvement that rejects the status quo, even when the program seems successful.
2. Faculty, learners, and clinicians in the community have a thirst for learning, and are committed to excellence and hold each other accountable to meet high expectations.
3. The education and practice community is willing to take risks to advance practice, teaching, learning and research.

The Envisioned Future

“It is never good enough” will be the shared mantra of excellent practitioners and educators who are compelled to adopt innovative and creative means to improve their work. These practitioners and educators recognize that the status quo cannot be relied upon to continue because rapid, significant change is the norm. The leaders of the future will create an environment that mutually supports practitioners and educators who take risks and hold everyone on the team accountable, including learners, for advancing the shared vision for practice and education. Creating and fostering the development of adaptive learners throughout the continuum from professional education through practice is essential for cultures that embrace change and the drive for excellence.

IV. Curriculum and Practice-based learning

Recommendation 4:

Learning for and through practice should be THE central foundational component grounding the development of curricula (academic and clinical) as it brings together excellence/high quality practice through integration of clinical research and teaching focused on learning through ongoing dynamic assessment and feedback.

Evidence-based themes:

1. An essential component of situated learning is the INTEGRATION of the academic and clinical worlds.
2. Faculty and learners are frequently and consistently engaged in authentic situated contextual learning experiences centered around patients.
3. These learning experiences are built into the academic curriculum EARLY and then integrated and further developed across academic and clinical environments.
4. Clinical research and practice are visible and integrated components of the academic learning environment.
5. Ongoing and dynamic formative and summative assessment for learners is direct, clear and critical in order to advance clinical practice, and learners embrace these opportunities for growth across academic and clinical environments.
6. The faculty are committed to comprehensive curricular assessment that integrates multiple perspectives including the rich experiences from situated clinical practice that brings evidence back to faculty for changing what they do.

Recommendation 5:

While there is no ONE model of curriculum directly linked to excellence, all curricula should have robust, purposeful opportunities for situated learning that occurs in the context of practice. This learning is intentional, early, and continuous and is built on a shared partnership between academic and clinical communities/organizations.

Evidence-based themes:

1. Educators make use of both explicit & implicit curricula grounded in practice in developing goals for students and residents, but it is the implicit and enacted curricula that have the biggest impact.
2. The integration of faculty with differing primary roles, (e.g. research, teaching and practice) has a positive impact on learning in the classroom and the clinic.

3. Clinicians are respected contributors to the educational program and have voice and presence in the evolution of the curriculum and clinical research.
4. The early introduction of clinical education in the curriculum, in a variety of forms, is planned to provide a strong but temporary contextual and continuous scaffold for learning that can shift and expand over time across the curriculum.
5. An overwhelming response from students that confirms their passionate engagement in learning that is meaningful, authentic and continuous across the curriculum.

Recommendation 6:

The profession should foster active practice learning communities that includes both professional students and residents. This expanded community of learners provides opportunities for experiencing and understanding the roles of supervision, coaching, and mentoring that are all fundamental to workplace learning.

Evidence-based themes:

1. The integration of professional and postprofessional learners (e.g. professional students, residents, graduate students, fellows) in clinical and academic environments enhances reciprocal teaching and learning that is fundamental to learning for and through practice.
2. Residency programs and the presence of residents extends the community of learners in academic and clinical settings and provides opportunities for a reflective look at teaching and learning at multiple levels across participants.

Recommendation 7:

The profession should be more intentional in grounding the conceptual foundation and sequential development of the physical therapist curriculum on movement and the movement system.

Evidence-based themes:

1. The current vision statement for the profession is “Transforming society by optimizing movement to improve the human experience.” There were examples of the central role of movement within the curriculum in all of the academic cases. The use of language, key concepts and other important organizing elements for curricular design were diverse and variable. There is both challenge and opportunity in findings ways to integrate a shared view of the movement system across the “traditional systems-based models” (musculoskeletal, neuromuscular, cardiopulmonary, etc).
2. The role and centrality of movement as it relates to our bodies and function is central to the profession and clearly visible in both academic and clinical teaching and learning environments. Use of observation of the human body for

- understanding movement and function, the application of concepts and theory related to motor learning and performance, analysis of movement, and touch are all components of teaching and learning environments in physical therapy and are often more tacit than explicit.
3. While successful patient outcomes in the clinical environment are dependent upon a strong integration and understanding of how to analyze movement and successfully engage patients in movement, the integration of social-cultural aspects in improving movement and function receive less curricular attention.

The Envisioned Future

There is no debate that physical therapist education embraces the centrality of integration of clinical practice, clinical cases and clinical experiences as critical to the preparation of physical therapists. The concept of learning for practice through practice provides an important goal for the profession. This concept is grounded in a rich body of research across disciplines on the power of situated learning. This focus on learning for practice should be done early as it creates a scaffold for contextual and continuous learning; learning that sticks. When clinical research is an active and visible aspect of the learning environment, the application and understanding of evidence-based practice is transformative. There is no single recipe for designing and implementing an excellent curriculum and a curriculum grounded in excellence. The facilitation of the learning process that is done through a true collaborative partnership between academic and clinical communities is non-negotiable. A community of practice and learners that also includes professional and post-professional learners provides the environment for continuous reflection on the teaching and learning environment. Given our strong consensus on the role of movement in the work of the physical therapist, the profession would benefit from a focused look at shared language, concepts and theoretical application about movement that has a broad and inclusive reach for professional and post-professional curricula and patient care.

V. Preparing Physical Therapists for Practice in the 21st Century: Creating Adaptive Learners

Recommendation 8:

Academic and clinical faculty should focus teaching/learning on the development of adaptive learners. Educators should be supported in learning how to develop adaptive learners. Adaptive learners are engaged in continuous learning, have strong self-monitoring (meta-cognitive) and self-assessment skills, are confident and motivated, able to embrace feedback, reflect and learn from their experiences, and incorporate new learning into practice.

Evidence-based themes:

1. Faculty are willing to explore the uncertainty in practice to engage the learner and as an important focus for teaching and learning.
2. While the use of evidence in practice should be non-negotiable in the teaching/learning environment, this should be done in learning situations that engage the learners in the struggle with the complexity and uncertainty of practice.
3. Facilitation of accurate learner self-monitoring by providing timely feedback grounded in high expectations for excellence and quality is a critical element in the development of the adaptive learner.

Recommendation 9:

All faculty should understand how to facilitate the development of clinical reasoning skills and sound clinical judgment within their learners. This should be done through explicit faculty development activities that assist all faculty in enhancing their competence in pedagogy of learning for practice.

Evidence-based themes:

1. While academic and clinical faculty demonstrate a basic understanding of important aspects of the teaching/learning environment that facilitate the development of students' clinical reasoning skills, **not all demonstrate a depth of understanding of related pedagogical language/concepts.** This variability in faculty understanding of the language and multidimensionality of clinical reasoning processes limits the effectiveness of the teaching and learning process toward realizing desired outcomes.
2. Excellent residency programs have an intentional focus on facilitation of clinical reasoning skills and sound clinical judgment through the mentorship process.

The Envisioned Future

Ongoing research on learning in professional education is an important knowledge base for all educators in the profession. A deeper understanding of the core concepts and underlying educational research on the development of adaptive learners is essential to the design of innovative, excellent didactic and clinical curricula. The learning environment has to embrace the discovery and use of evidence and find ways to facilitate learners' ability to manage decision making in uncertain conditions. The development of students and therapists' clinical reasoning abilities demands well-crafted learning experiences grounded in well-established teaching and learning strategies. The ability to facilitate the critical skills of meta-cognition demands an ongoing process of critical self-reflection by both learners and teachers.

VI. Professional Formation: The Role of Moral Agency

Recommendation 10:

Academic and clinical educators should provide purposeful mentoring early in and throughout a learner's career to help the learner assume the role of moral agent on behalf of patients and clients and assimilate the professional obligations of a physical therapist. This can help physical therapists resist the stresses that can be experienced with meeting these obligations in the reality of practice, and reduce the level of stress as practice changes to more clearly reflect these obligations.

Evidence-based themes

1. Faculty and clinicians have a deep understanding of their own professional identity, the profession, and the service the profession gives to society, and they expect their learners to do the same.
2. Mentors accept the obligation to model patient centered practice and professionalism for their learners, because it is the "right thing to do".

Recommendation 11:

Academic and clinical faculty should strengthen teaching and learning for professional social responsibility to provide learners with a deeper understanding of their social obligations as moral agents, thereby encouraging future action around important topics such as work force diversity and health disparity.

Evidence-based themes

1. Examples of learning experiences for social responsibility were evident but not prevalent, and not necessarily driven philosophically by identified community or societal needs.
2. There was awareness at academic sites that their student bodies did not reflect the diversity that would be desired in today's society, but there was little evidence of emphasis on activities to change the situation.

The Envisioned Future

Physical therapists continue to develop a strong sense of patient-centered care, with recognition of their moral obligation to place patient and client needs ahead of personal needs, thereby demonstrating a full understanding of the meaning of being part of a profession. Physical therapists also will recognize their individual and collective responsibilities to society. This will be demonstrated by continued involvement in professional organizations and by increased engagement with community groups to support initiatives that promote the health of populations.

Academic institutions will take leadership in extending the role of physical therapists in improving health across society and globally. This will be reflected in the content of physical therapist education curriculum and in the presence of programs that provide direct support to the community.

VII. Organizational Context

Recommendation 12:

Neither the profession, nor the academic and clinical program, should expend resources in attempting to identify a narrow set of curricular models or academic organizational structures for physical therapist education.

Evidence-based themes

1. All 11 academic and clinical sites studied used different curricular models.
2. There were varied structures for how each of the academic programs were housed within the University. While each structure brought different challenges, the program's leadership was able to provide skilled vision and administrative navigation that facilitated excellent, sustainable, and thriving programs. Thus, we cannot conclude that structure is a critical component of excellence.
3. There were varied patterns for the length and timing of clinical education experiences. A focus on the critical ingredient of intentional, early and continuous learning focused on patient care, rather than a defined length of the final clinical experience such as a year-long internship, was essential.

Recommendation 13:

Effort should be expended in increasing program size to assure the necessary resources and economies of scale to improve the quality of programs.

Evidence-based themes

1. The class sizes among the programs examined are higher than the current national averages. Those larger class sizes (still less than 100) was an intentional programmatic administrative strategy that brought increased resources, such as more faculty and revenue, to meet educational goals. These resources were important in the program's ability to excel and thrive.
2. Increased faculty size allowed academic program to support the faculty roles of research, teaching, service and clinical care that are necessary to provide excellent physical therapist education.

Recommendation 14:

The economic models that clinical education sites use should include tangible and intangible benefits and costs over a longer time frame for analysis. Those models should be linked to the institution's mission and the responsibility to prepare the necessary quantity and quality of physical therapists to meet society's needs. Economic considerations should include the value of clinical education for staff learning and development and for recruiting and retaining highly qualified practitioners.

Evidence-based themes

1. Because clinical programs saw clinical education as central to their mission, they integrated the cost of clinical education into their core operation. They were sufficiently satisfied that the clinical education program did not have a negative effect on their financial performance they did not need to examine the cost in precise detail.
2. For the most part, clinical instructor/student teams were regarded as a single physical therapist unit for the purpose of patient care assignments and volume-based productivity expectations. During the initial phases of the clinical assignment, the clinical team helped absorb some of the CI/student load as the student was oriented. This model leveled out patient care assignments over time as students entered and left the clinical site.

The Envisioned Future

Academic and clinical education programs engaged in physical therapist education will display a diversity of models and organizational structure that are built on the 13 recommendations included here. There is no substitute for highly skilled leaders who are able to navigate complex organizational structures and dynamic environments and maintain a sustained commitment to the profession's public purpose and core aims. These leaders surround themselves with engaged, dynamic professional colleagues in a vibrant community of practice focused on learning and excellence. While economic models for revenue generation through multiple means (e.g., tuition, development, grants, or clinical revenues) are an essential component of these organizations, the programs will be respected, valued partners within their organizations and have influence over their resources.