

Exploring Excellence: Author Reflections on *Educating Physical Therapists*

By Elizabeth Mostrom, PhD, PT, FAPTA; Gail M. Jensen, PT, PhD, FAPTA;
Laurita M. Hack, PT, DPT, PhD, MBA, FAPTA; Terrence Nordstrom, PT, EdD,
FAPTA; and Jan Gwyer, PT, PhD

In this essay, Drs. Mostrom, Jensen, Hack, Nordstrom, and Gwyer share their reflections on their decade-long investigative inquiry into excellence and innovation in physical therapist education in the United States—which culminated in their groundbreaking book, *Educating Physical Therapists*. The project was born out of the recognition that the profession of physical therapy, and the healthcare system in which physical therapists practice, have undergone significant change over the half century since the previous comprehensive national study of physical therapist education occurred.

The authors, respectful of the challenge to replicate the valuable work found in the Carnegie Foundation's Preparation for the Professions Program, set out on what they describe as “an invigorating and inspiring journey” that took them coast to coast over a 10-year quest. In the book, they engage the reader immediately with their excitement at the opportunity to review state-of-the-art instructional programs and clinical sites, leading to an in-depth analysis of where PT education is headed in the future. They confirm that

PT education is shared by engaged participants in the academic and clinical settings, with a focus on students and patients as the “nexus” of the educational endeavor.

Of particular interest to JHR readers are the many examples of excellent teaching and effective learning identified in the book—with a caveat. The authors also share their disappointment that PT education often may not adequately prepare students to manage the challenges of balancing intellectual knowledge, technical skills, and moral challenges in practice. They found PT education generally lacking in the successful development of a professional identity that goes beyond rituals or experiences, such as professionalism ceremonies that are not further developed into “a recurrent curricular emphasis on teaching moral professional purpose and commitment.” They point out that journals such as JHR have “much to offer the profession” in integrating the humanities across the curriculum.

In Part 3 of the book, the authors offer 30 recommendations that they believe “have the potential

to transform physical therapist education.” They clearly provide direction to individual educators for changes that can be made beginning today.

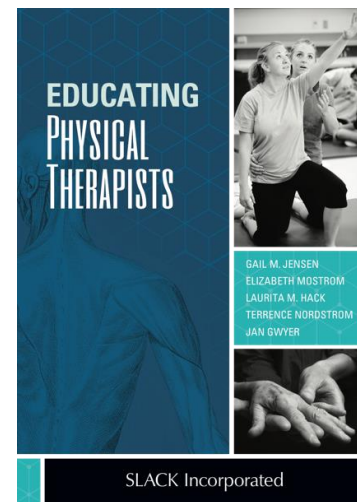
Effective change needs to happen with a system-wide perspective involving multiple stakeholders. To that end, the authors strongly support the integration of the humanities into PT education as a way in which to cultivate and develop “adaptive learners”—PT clinicians who can raise the level of care and promote safe and effective PT practice in our 21st-century healthcare system.

Readers of *Educating Physical Therapists* are invited by the authors to share the experiences and insights that evolved during this study and to use what they have gleaned to promote excellence in the academic and clinical settings—where not only future physical therapists, but all rehabilitation professionals, are educated. We are grateful to the authors, all leaders in education, for their vision, their passion, and their outstanding commitment to the excellence in education that results in excellence in care.

—Nancy Kirsch, PT, DPT, PhD, FAPTA



Research team with Dr. Lee Shulman, Charles E. Ducommun Professor of Education Emeritus, Stanford University; President Emeritus, The Carnegie Foundation for the Advancement of Teaching



Educating Physical Therapists. Thorofare, NJ: Slack Inc.; 2019.

Most journeys begin with a destination in mind but uncertainty about the exact route to be traveled along the way. So it was with our 10-year journey to investigate excellence and innovation in physical therapist education in the United States.

Our reasons for embarking on this project were many, but chief among them was the need for a comprehensive, systematic, nationwide study of physical therapist education in the United States. Such an investigation had not taken place for almost half a century. During that same time, however, there were constant and often dramatic changes occurring in the healthcare system, the nature of healthcare delivery and practice, and higher education. All of these shifts meant that the educational preparation of health professionals needed to be examined and evolve to meet new demands and expanding societal expectations for the health professions and future professionals.

In considering our route, we were fortunate to have the wisdom and example of an undertaking initiated in the 2000s by the Carnegie Foundation for the Advancement of Teaching, which funded and conducted a series of comparative studies of professional education. The impetus for these studies grew out of the scholarship and influential work of philosopher William Sullivan, author of *Work and Integrity: The Crisis and Promise of Professionalism in America*,¹ and the vision and leadership of Dr. Lee Shulman, then President of the Carnegie Foundation. The foundation's Preparation for the Professions Program (PPP) led to a landmark set of comprehensive studies of professional education that, in the words of Dr. Shulman, aimed to "...demonstrate how the professionals, on whom we all depend for so much of the quality of our lives, can learn to balance...technical, intellectual and moral equations. That's what professions do."^{2(p.xv)} In contrast to the well-known Carnegie-sponsored Flexner study of medical education that found tremendous variation in quality and rigor across schools, Shulman's vision was to focus on excellence and innovation, and on uncovering new understandings of how people learn. *Ambulando discimus* (we learn by "going about") remained the hallmark of these studies as research teams visited exemplars of excellence in each of their fields.

The PPP resulted in 5 far-reaching investigations of preparation for the professions of the clergy, law, engineering, nursing, and medicine; concurrently, they afforded an opportunity for a cross-professions examination of education in those fields and others. Each of the studies culminated in the publication of a book describing the study findings and outlining recommendations for reform that emanated from those findings.³⁻⁸ Today, the PPP findings and recommendations are having a significant influence on the evolution of professional education in each of the

disciplines studied.

Our Methodology

Following in the footsteps of this landmark set of studies was a tall order. However, the signposts they had erected provided a source of inspiration and perseverance as we sought funding to conduct a similar study of physical therapist education, and as we began our investigative journey. Indeed, the Carnegie studies provided a roadmap for what was to come, and paved the way for our study. Like the PPP studies, we too "learned by going about" as we closely examined excellence and innovation in professional PT education. We studied participants across the continuum—from the initial preparation for entry into the profession through post-professional residency education in both academic and clinical settings.

Collectively, we brought to the endeavor more than 150 years of experience in physical therapist education, expertise in educational research and qualitative inquiry, and a deep belief in the need for and purpose of our study. Finally, we brought an abiding hope that the findings from our study would engender the kinds of deliberative reflection, rich conversation, and thoughtful reform that had resulted from the PPP studies, and that would promise a bright future for physical therapist education well into the 21st century.

After two national calls for nominations, our final sample for the study was selected and our course was charted—one that would take us on an invigorating and inspiring journey to both coasts and other regions in between, visiting 11 sites (6 academic and 5 clinical) that were identified as exemplars of excellence and innovation in physical therapist education.

Our Results

Our book, *Educating Physical Therapists*, is the culmination of our 10-year journey. It is divided into 4 main parts that trace our steps from its initial conception to publication.

Part 1 of *Educating Physical Therapists* sets the scene for what is to come. We frame our work in the historical context of physical therapy’s emergence as a healthcare profession in the 20th century, the changing nature of the healthcare field and its professional education at the same time, and the recent Carnegie Foundation studies of professional preparation.

In Part 2, we describe our research design and methods and, importantly, our evolving conceptual frameworks over the course of the study. The end result of that evolution is a final conceptual model of Excellence in Physical Therapist Education that serves as a framework for the presentation of our findings and synthesis of those findings in the remaining chapters in this part. The model highlights dimensions of excellence and their component elements, which we identified across both academic and clinical sites. The dimensions are the:

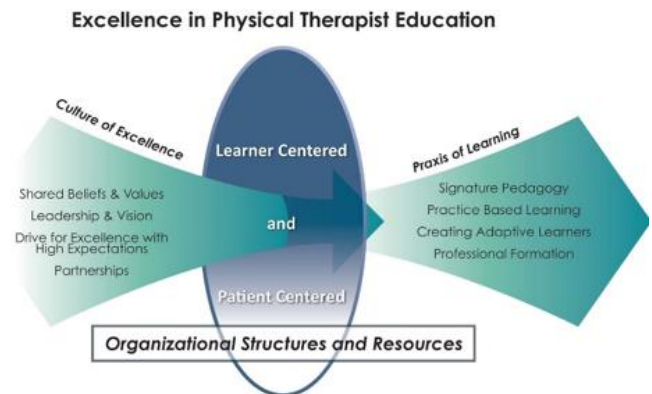
Culture of Excellence, composed of the elements of shared beliefs and values, distributed leadership and vision, a drive for excellence with high expectations, and academic/clinical partnerships

Praxis of Learning, composed of the elements of a signature pedagogy, practice-based learning, creating adaptive learners, and professional formation

Organizational Structures and Resources—the

foundational dimension

At the center of the model and essential to all the dimensions is a *Nexus*, a metaphoric lens, where the paired and highly valued aims of learner- and patient-centering in the educational enterprise come together.



PARTICIPANT ENGAGEMENT

As we present the study findings in the chapters in Part 2, we hope readers will sense our thrill of engagement with participants at each site; each visit was truly enlightening and energizing. To that end, we provide substantial grounded data drawn from observations and interviews to give voice to our participants. In addition, we constructed paradigm cases meant to serve as illustrative vignettes of—or stories about—the model dimensions and/or elements “in action” so that readers might better see, hear, and feel what we had the privilege of experiencing directly as we visited participating sites and interacted with numerous academic and clinical faculty, students, residents, and administrators.

A HUMANITIES COMPONENT

Of particular interest to *JHR* readers will be our findings about the *Praxis of Learning*. We observed many examples of excellent teaching and learning practices, yet we found less understanding of

underlying learning theory and concepts central to facilitating robust learning—and to creating life-long learners. Similar to the Carnegie studies, we also found that there was a strong and visible focus on developing professional identity as experienced through rituals such as white coat ceremonies, among others. The intentional development of professional formation, however—which requires stronger and recurrent curricular emphasis on teaching for moral professional purpose and commitment—was lacking. This is where integration of the humanities across the curriculum and the role of a journal such as this one has much to offer the profession.

Our Recommendations

Like the Carnegie PPP studies before us, our findings, while identifying and celebrating markers of excellence, also allowed us to see areas for improvement; this led to the formulation of 30 recommendations that we suggest have the potential to transform physical therapist education in the future.

Part 3 of *Educating Physical Therapists* presents our 30 recommendations, delving more deeply into the meaning and implications of our findings, considering them in light of literature and evidence from other health professions and disciplines, to offer an expanded perspective on how to facilitate and accelerate positive change as we move forward into the 21st century. Each of the chapters in this part shines a light on one of the 3 major dimensions in the model and links the recommendations to those dimensions and the elements that comprise them.

A *JHR* RESONANCE

We believe that *JHR* readers will find that many of these recommendations resonate with your own

concerns about and commitments to improving the preparation of rehabilitation professionals. As forecast earlier, recommendations related to professional formation and strengthening learners' understanding of and ability to enact our social contract, will be of particular interest to readers of this journal. We see the integration of the humanities into professional education as an essential component for preparing adaptive learners who can navigate uncertain situations in complex systems, act as advocates and moral agents, and demonstrate the moral courage to address societal needs, call out and seek to change substandard practice, and meet our professional obligations.

INSIGHTS FROM INVITED AUTHORS

In Part 4 of the book, we attempt to answer the question, “Where do we go from here?” by crafting visions for the future, sharing the voices and perspectives of a group of distinguished invited authors. Drs. Ruth Purtilo and Patricia Benner offer insights on educating for professional responsibility and integrating the habits of head, heart, and hand in professional education. Dr. Scott Reeves and colleagues highlight the need to understand and embrace interprofessional education. Dr. Joy Higgs stresses the centrality of practice-based education for realizing excellence and future-oriented practice. Drs. Stephen Loftus and Kathryn Huggett explore directions for education research in the health professions. Drs. Steven Chesbro and William Boissonnault identify opportunities for professional education from the perspective of a health profession's organization (APTA). Finally, we end Part 4 with our own vision—“a reimagining” of the profession, professional curricula, and the educational enterprise for the 21st century.

COLLECTIVE INNOVATION

Our investigative and reflective journey during the completion of this study was one of constant learning and development over the years enriched by the experiences and insights shared by study participants, consultants, and audience members who asked thought-provoking questions as we presented emerging findings as the study unfolded. Through this book we invite readers to join us on that journey and hope that as you retrace our steps, you will be inspired to envision alternative paths and forge new trails that will advance excellence and innovation in education not only for physical therapists but for all rehabilitation professionals.



From Left: Gail M. Jensen, Terrance Nordstrom, Jan Gwyer, Laurita M. Hack, Elizabeth Mostrom

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About the Authors



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Dr. Elizabeth Mostrom is Professor Emerita at Central Michigan University where she previously served as Professor and Director of Clinical Education for the Doctoral Program in Physical Therapy, School of Rehabilitation and Medical Sciences. She holds a BS degree in Health Education from West Chester State College, an MS in physical therapy from Duke University, and PhD in Educational Psychology from Michigan State University. Dr. Mostrom is a qualitative and education researcher whose scholarly publications and presentations span the areas of student and professional learning and development in academic and clinical settings, expertise in clinical practice and teaching, patient-practitioner interaction, and qualitative methods. She has been a contributing author to several books including *Expertise in Physical Therapy Practice (1st and 2nd ed.)*, the *Handbook of Teaching for Physical Therapists (2nd ed.)*, *Realising Exemplary Practice-Based Education* and *Educating for Moral Action: A Sourcebook in Health and Rehabilitation Ethics*. She coauthored/edited the third edition of the *Handbook of Teaching for Physical Therapists* with Dr. Gail Jensen. She is a co-investigator for the national study described in this book review, Physical Therapist Education for the Twenty First Century (PTE-21): Innovation and Excellence in Physical Therapist Academic and Clinical Education. Dr. Mostrom is a past editor of the *Journal of Physical Therapy Education* and is a Catherine Worthingham Fellow of the APTA. She is a recipient of the APTA's Mary MacMillan Scholarship and Lucy Blair Service Award and was the APTA's Education Section Polly Cerasoli Lecturer in 2013.



Gail M. Jensen, PT, PhD, FAPTA, FNAP

Dr. Jensen is Dean of the Graduate School and College of Professional Studies, Vice Provost for Learning and Assessment, Professor of Physical Therapy, and Faculty Associate, Center for Health Policy and Ethics, Creighton University. She is known nationally and internationally for scholarly contributions in expert practice, clinical reasoning, professional ethics, and interprofessional education. Dr. Jensen is author or coauthor of more than 85 publications in peer-reviewed journals and has coauthored 12 books, including the fourth edition of *Clinical Reasoning in the Health Professions*, third edition of *Handbook of Teaching for Physical Therapists*; *Leadership in Interprofessional Health Education and Practice*; *Realising Exemplary Practice-Based Education*; *Expertise in Physical Therapy Practice (2nd edition)*; and *Educating for Moral Action: A Sourcebook in Health and Rehabilitation Ethics*, and a

forthcoming book, *Clinical Reasoning and Decision Making in Physical Therapy*. She led the research team that recently completed a National Study of Excellence and Innovation in Physical Therapist Education funded by the American Physical Therapy Association and several APTA components. The book, *Educating Physical Therapists*, was published in 2019. Dr. Jensen is a Catherine Worthingham Fellow of the American Physical Therapy Association and a Distinguished Scholar fellow in the Physical Therapy Academy of the National Academies of Practice. Dr. Jensen received her PhD in educational evaluation with a minor in sociology from Stanford University. She holds a master's degree in physical therapy from Stanford University and a bachelor's degree in education from the University of Minnesota.



Laurita M. Hack, PT, DPT, PhD, MBA, FAPTA

Dr. Laurita Hack has a BA from Wilmington College, an MS as the first professional degree in Physical Therapy from Case Western Reserve University, an MBA from the Wharton School, University of Pennsylvania, a Ph.D. in higher education administration from Penn, and her Doctor of Physical Therapy degree from the MGH Institute of Health Professions.

She has clinical experience in outpatient, nursing home, and homecare practice, especially in geriatrics, and has taught in the areas of practice management, geriatrics, clinical decision-making, evidence based practice, ethics, and health care systems.

Dr. Hack's research interests include development of clinical expertise, the physical therapy workforce, and physical therapy education. She is a coauthor of *Expertise in Physical Therapy Practice*, *Evidence into Practice*, and *Educating Physical Therapists*. She is a co-investigator in the grant, Physical Therapist Education for the Twenty First Century (PTE-21): Innovation and Excellence in Physical Therapist Education.

She has served the APTA as President of the Community/Home Health, Health Policy, and Education Sections, and as Vice Speaker and Secretary of the APTA. Her APTA honors include: being named a Catherine Worthingham Fellow of the APTA, the Lucy Blair Service Award, and the Baethke-Carlin Award for Teaching Excellence. She was APTA's 2018 Mary McMillan Lecturer.



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Dr. Nordstrom is a Professor in the Department of Physical Therapy and the Vice-President of Enrollment and Student Services at Samuel Merritt University in Oakland, California. He is an experienced clinician, clinical manager and educational administrator. His primary areas of teaching and research are in the areas of professional formation, ethical reasoning, and moral agency among physical therapist students. Dr. Nordstrom has served as Vice President and

President of the American Council of Academic Physical Therapy. He served on the Ethics and Judicial Committee of the American Physical Therapy Association, including as Chair. He is a Catherine Worthingham Fellow of the American Physical Therapy Association and a Fellow of the National Academy of Practice. He is a member of the research team with Gail Jensen, Jan Gwyer, Laurie Hack, and Elizabeth Mostrom that conducted the study, *Physical Therapist Education for the 21st Century: A National Study of Excellence and Innovation in Academic and Clinical Education*. He is the author of several papers and book chapters in the area of physical therapy education and research. He received his BA degree at the University of California, Santa Cruz, his MA degree in physical therapy from Stanford University and his EdD from the University of San Francisco.



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Dr. Jan Gwyer is Professor Emerita at Duke University. She served as a Professor of the Doctor of Physical Therapy Division, Department of Orthopaedics, School of Medicine, Duke University, Durham, North Carolina. She holds a Bachelor of Science Degree from the Medical College of Virginia and Master's and Doctor of Philosophy Degree from the University of North Carolina at Chapel Hill. Dr. Gwyer has been a practicing physical therapist for 45 years, in both inpatient and outpatient settings, with her practice focused on aspects of rehabilitation for adult patients. She has been an educator and researcher for over 30 years. Her expertise focused on higher education, clinical education, career patterns and workforce issues in physical therapy. She is a coauthor of *Expertise in Physical Therapy Practice*, 1st and 2nd editions, and several related articles that led to the research project that resulted in this book. She has also coauthored *Evidence into Practice* with Dr. Laurie Hack, a text on the integration of clinical decision making, respect for patient values, and evidence from the literature into practice. Dr. Gwyer has held several leadership roles in the APTA, serving on the board of the American Physical Therapy Specialists, the Clinical Instructors Education Board, and on the APTA Board of Directors. She has received APTA awards including the Lucy Blair Service Award and the Catherine Worthingham Fellow of the APTA.