

Building the Physical Therapy Workforce for an Aging America

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Background and Purpose. A landmark 2008 Institute of Medicine report concluded that the health care workforce is not prepared to deliver effective and efficient health care services to older adults, and the numbers of health care practitioners specializing in geriatrics are insufficient to meet the needs of this population. The purposes of this paper are to: (1) advocate for the use of essential competencies developed by the American Physical Therapy Association (APTA) Section on Geriatrics (now known as the Academy of Geriatric Physical Therapy) to guide curriculum development for physical therapist (PT) and physical therapist assistant (PTA) education programs; (2) describe key modifiable barriers to educating PTs and PTAs to meet the health care needs of older adults in the US; and (3) recommend curriculum strategies and enhancements to achieve student readiness to deliver effective and efficient services to older adults at completion of their education.

Position and Rationale. Similar to graduates in other health professions, graduating PTs and PTAs are under-prepared to deliver effective and efficient physical therapy services to older adults. The *Essential Competencies in the Care of Older*

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Adults at the Completion of the Entry-level Physical Therapist Professional Program of Study, and emerging PTA documents, should guide curriculum development and assessment efforts. Course work, including clinical education, must carefully and deliberately include sufficient and targeted learning activities to ensure students acquire the requisite knowledge, attitudes, and skills. Faculty attitudes must convey value for the impact physical therapy can have in achieving optimal aging. Students should interact with a variety of older adults, from fit to frail, including those with multimorbidity.

Discussion and Conclusion. Since older adults will comprise the largest percentage of patients/clients across most practice settings, all PT and PTA graduates must be competent in their care. To enhance PT and PTA education, we suggest a curricular approach that includes important characteristics of the educational setting, practice expectations and competency domains, and critical curricular themes. Modifiable factors influencing decisions regarding geriatric-focused curricular content are highlighted. Through the explicit and concerted efforts outlined in this paper, we believe that the physical therapy profession will be better prepared to meet the workforce needs created by an aging America.

Key Words: Entry-level education, Faculty development, Geriatrics.

BACKGROUND AND PURPOSE

A landmark Institute of Medicine (IOM) Report in 2008, "Retooling for an Aging America: Building the Healthcare Workforce,"¹ provided a discouraging assessment of the readiness of the health care workforce to meet the needs of the rapidly growing older adult population and stressed the critical need to enhance educational preparation in geriatrics. The IOM report examined workforce

data and educational preparation across the spectrum of health disciplines, concluding that (1) the health care workforce in general is inadequately prepared to deliver effective and efficient health care services to older adults, and (2) the numbers of health care practitioners choosing to specialize in geriatrics is critically insufficient to meet the needs of the population.

This is not the first call for greater emphasis on geriatrics in health professional education. This need was widely discussed in the late 1970s and early 1980s.^{2,3} The IOM's 1978 report "Aging and Medical Education"⁴ focused on the changing demographics and the need to better prepare clinicians for these changes. The implementation of geriatric education centers (GECs)⁵ by the US Public Health service in 1983 was spurred by the recognition of this growing and unmet need for better preparation of health care practitioners in geriatrics.

In 1990, the APTA's Department of Accreditation, recognizing the critical need for enhanced geriatric content, received an Administration on Aging grant to support a project aimed at enhancing the aging-related content and learning experiences in physical therapist (PT) and physical therapist assistant (PTA) education programs. A survey was conducted, resource manual produced, and a cadre of physical therapy professionals with advanced knowledge in geriatrics were trained as onsite reviewers for the accreditation of PT and PTA academic programs.

Despite the effort of many over the years, the gap between the need for and the existence of a well-prepared workforce remains large. A crisis is now upon us. Older adults are currently the predominant group using the health care system. Older adults access the health care system at 3 times the rate of other age groups, have longer hospital stays, have more office visits, and spend more money on health care than other age groups.⁶ Given our population demographics, this growth will continue for at least the next several decades. A workforce well prepared to deliver

quality health services in a resource-efficient and clinically effective manner is essential to meet the health care needs of the population. Quality health care for older adults will not be achieved through the services of specialists alone. All health professionals must have a solid preparation in the management of older adults, and students seeking entry to health professions programs should recognize that the majority of them will regularly work with older adults.

The patient demographics within physical therapy mirror other health professions. In the 2011 "Analysis of Practice for the Physical Therapy Profession: Entry-Level Physical Therapists"⁷ commissioned by the Federation of State Boards of Physical Therapy, a large and representative sample of PTs reported the percentage of their typical caseload by age bracket (18 or younger, 19-65, 66 or older). The summary data indicated that, on average, 47% of patients managed by PTs are 66 years of age or older. This compares to 37% of patients between 19-65 and 13% of patients 18 years or younger. The parallel document for the PTA, the "Analysis of Practice for the Physical Therapy Profession: Entry-Level Physical Therapist Assistants,"⁸ reports that, on average, 63.6% of the patients treated by PTAs are 66 years of age or older, 28.8% are between the ages of 19-65, and 5.5% are 18 years of age or younger. Thus, the older adult constitutes an even higher percentage of the PTA's caseload.

Bardach and Rowles⁹ reported on the contemporary status of geriatric education across 7 health care disciplines, including physical therapy. They noted that the major guidelines and criteria provided by the accrediting and licensing organizations associated with these health professions all included broadly worded statements expecting graduates to demonstrate competence in the care of individuals "across the lifespan" or "across the continuum of care." Very little, if any, further clarification was provided. After interviewing faculty across all 7 fields, Bardach and Rowles concluded that contemporary geriatric education across these health fields continues to struggle with lack of time in the curriculum, lack of faculty qualified in geriatrics, lack of faculty advocates for geriatric content, poor reimbursement for practitioners working in geriatrics, student exposure to geriatrics limited to sick older adults, and lack of student interest in geriatrics. This list of barriers has not changed substantially over the past 30 years.^{10,11}

The purposes of this paper are to: (1) advocate for the use of the essential competencies statements developed by the American Physical Therapy Association (APTA) Sec-

tion on Geriatrics (SOG) (now known as the Academy of Geriatric Physical Therapy) to guide curriculum development for entry-level PT and PTA education programs; (2) describe key modifiable barriers to educating PTs and PTAs to meet the health care needs of older adults in the US; and (3) recommend curriculum strategies and enhancements to achieve student readiness to deliver effective and efficient services to older adults at the completion of their entry-level education.

POSITION AND RATIONALE

Our position is that, similar to graduates from other entry-level health professions programs, graduating PTs and PTAs are under-prepared to deliver effective and efficient physical therapy services to older adults. Lack of explicitly stated competency expectations to guide curriculum development, paucity of geriatric specialists in positions to influence curricula, low perceived value for the impact of working with older adults, and little desire among graduating students to work with older adults all contribute to under-preparation of physical therapy graduates for working with older adults, and under-representation of new graduates in practice settings perceived as geriatric-focused.

The recently developed *Essential Competencies in the Care of Older Adults at the Completion of the Entry-level Physical Therapist Professional Program of Study* (EC-PT, see page 91 of this issue)¹² and emerging documents specific to the PTA (EC-PTA) should be adopted by all PT and PTA education programs to guide curriculum development and assessment efforts. To achieve these essential competencies, entry-level course work, including clinical education, must carefully and deliberately include sufficient and targeted learning activities to ensure students acquire the requisite knowledge, attitudes, and skills to care for older adults. Academic and clinical faculty must display attitudes that convey value for the impact that physical therapy can have on helping older adults achieve optimal aging, and share this with their students. As part of their formal training, students should interact with a variety of older adults, from fit to frail, in meaningful community and clinical education experiences.

Competencies in the Care of Older Adults

Following the IOM's call to action in its 2008 report,¹ many leaders across health fields renewed their efforts to build health care workforce readiness for the care of older adults. Several interprofessional coalitions emerged. The Eldercare Workforce Alliance (EWA)¹³ is one such coalition. This coalition of 28

national organizations, including APTA, addresses workforce shortages, training and compensation, and advancing models of care associated with the health care needs of the older adult.

A second influential coalition spurred by the report was the Partnership for Health in Aging (PHA), initially comprised of 21 professional organizations, including APTA. A major step in determining workforce readiness is identifying expected competencies of the workforce. The PHA took on the task of bringing together a variety of health professions to develop a set of core competencies applicable across health professions. This core set of competencies was developed over a 2-year period of time with the participation of all 21 professional organizations. The document *Multidisciplinary Competencies in the Care of Older Adults at the Completion of the Entry-Level Health Professional Degree* (multidisciplinary competencies),¹⁴ emerged from the work of this coalition. These competencies were endorsed by 31 professional organizations, including APTA, in 2010.

Internal medicine and family medicine have recently identified core geriatric competencies for all residents and medical students, as well as more specific competencies for those entering geriatric-focused residencies.¹⁵ The American Association of Colleges of Nursing has added recommendations for geriatrics as part of the baccalaureate competencies in nursing that supplement the essentials of nursing.¹⁶ Nurse practitioners are striving to ensure an effective blend of generalist and specialist preparation in geriatrics. A national movement is underway to combine adult nurse practitioner (ANP) and geriatric nurse practitioner (GNP) programs to ensure a broader and deeper preparation of the ANP in geriatrics, given that older adults are the largest patient population of the ANP.¹⁷ Leaders in the specialty areas of hospice and palliative medicine and in geriatrics have identified common knowledge areas about the older adult in their fellowship programs and have delivered educational sessions across specialties.¹⁸

The Commission on Accreditation in Physical Therapy Education (CAPTE) expects graduates of CAPTE-accredited PT or PTA education programs to be competent in participating in generalist practice. Both PT¹⁹ and PTA²⁰ evaluative criteria describe this competence in participating generalist practice very broadly. The CAPTE criteria, as well as several other APTA core documents commonly used to guide curriculum development and practice expectation assessments,²¹⁻²³ all speak to the importance of addressing lifespan, continuum of care,

Box 1. Examples of Physical Therapist Curriculum Competencies (CC) Associated With Management of Older Adults as Stated in Commission on Accreditation in Physical Therapy Education (CAPTE) Evaluative Criteria for Physical Therapist Educational Programs.

CC-4: The physical therapist professional curriculum includes clinical education experiences for each student that encompass:

- Management of patients/clients representative of those commonly seen in practice across the lifespan and the continuum of care;
- Practice in settings representative of those in which physical therapy is commonly practiced;

CC-5: The curriculum is designed to prepare students to meet the practice expectations listed in CC-5.1 through CC-5.66:

- CC-5.18: Identify, respect, and act with consideration for patients'/clients' differences, values, preferences, and expressed needs in all professional activities.
- CC-5.30: Examine patients/clients by selecting and administering culturally appropriate and age-related tests and measures.

cultural competence, and patient values and preferences. However, these documents provide only limited guidance in determining specific knowledge, attitudes, and skills required to achieve competence relative to any specific age group, including the older adult. Box 1 provides examples of the 2013 CAPTE evaluative criteria for PT noteworthy for applicability to the older adult.

The Section on Geriatrics led the physical therapy profession's efforts to develop essential competencies in geriatrics by its active participation in the PHA workgroup that developed the multidisciplinary competencies¹⁴ and in creating the taskforce that translated these multidisciplinary competencies into the PT-specific EC-PT.¹² A parallel taskforce of PTA educators, also supported by the SOG, is currently formulating a list of essential competencies individualized to the PTA, the EC-PTA, also based on the American Geriatric Society's (AGS) multidisciplinary competencies¹⁴ (Board of Directors, APTA Section on Geriatrics, meeting minutes, June 9, 2011).

The 6 members of the SOG taskforce that developed the EC-PT were chosen because of their reputation as experts in PT education and geriatric physical therapy. For each of the 23 competency statements included in the multidisciplinary competencies,¹⁴ the SOG taskforce drafted additional expectations (termed "subcompetencies") specific to the PT at entry-level. Consensus was first

achieved between 2 taskforce members working in pairs on specific multidisciplinary competencies and then consensus was achieved across the taskforce. At the 2010 APTA Combined Sections Meeting, a group of 35 volunteers (PT educators and clinicians) reviewed the draft competencies and provided feedback addressing face and content validity. The taskforce modified the document based on this feedback and shared the changes with the volunteers via e-mail with a request for further review and feedback. The taskforce considered all feedback and modified the document accordingly. The final EC-PT document was approved by the SOG Board of Directors, published both online¹² and in the Section's magazine *GeriNotes*,²⁴ and was mailed to the directors of all PT education programs in the US. The EC-PT is organized around 6 overarching domains of care and 23 bolded statements from the multidisciplinary competencies. Listed under each of the related multidisciplinary competencies are 61 PT-specific subcompetencies.

Complexity of Care: Integrating Heterogeneity and Multimorbidity Into Patient Management

Heterogeneity and the presence of multiple comorbid conditions (multimorbidity) characterize the older adult population,^{1,25-27} often adding substantial complexity to decision making regarding prognosis, treatment

options, and prioritizing goals to optimize benefit. Leaders in geriatrics have expressed concerns that this complexity is inadequately considered by health care practitioners when making clinical decisions.^{1,25,28} Indeed, complexity was identified as 1 of 3 essential knowledge domains in the Advancing Care Excellence for Seniors (ACES) framework that serves as a curriculum guide for the National League for Nursing toward enhanced quality of care for older adults.²⁸ Concern for comorbidity and patients with complex medical profiles is addressed in EC-PT competencies 3A.1 and 3B.1.

Our observation is that most PT and PTA educators recognize and agree that older adults generally have multiple chronic health conditions and complicating contextual factors impacting their health and prognosis. However, this has not necessarily prompted these same faculty to include consideration of multimorbidity and contextual complexities into their non-geriatrics courses. And, in our many interactions with PT and PTA educators, it is our observation that, "geriatric" courses and/or geriatric-specific units within courses generally focus on topics such as managing frailty, confusion, geriatric syndromes, and medically unstable older adults. There often appears to be few opportunities for skill development in the management of the typical older adult who, despite several comorbid conditions and complicating contextual factors, is living independently, is actively engaged in his or her community, and is strongly motivated to continue to remain active and engaged.

Addressing ageism and its influence on patient management. Development of clinical skills is frequently occurring against the backdrop of ageism and negative perceptions about the geriatric work environment. Although, as a group, PT students generally achieve neutral or positive scores on tests of attitudes toward older adults,^{29,30} they also hold many negative stereotypical beliefs about the capabilities and motivation of older adults³¹ and express very low interest in working in settings perceived as primarily geriatric.^{11,32} Students who perceive older adults, by virtue of being older, as being unmotivated, set in their ways, unwilling to listen to their advice, and having low potential for functional improvement, show little interest in learning more about best practices in geriatrics and strategies for success in working with this population. Student PTs and PTAs are anxious to demonstrate their success as a clinician and often gauge that success by the extent to which their patients improve under their care. As such, students express low interest for working with patients who progress

slowly or who are unlikely to return to a high level of community independence.³³

Students desire a vibrant work environment with many opportunities to participate on teams, to expand their skills and experiences, and deliver high-quality care; they generally do not view the geriatric setting as rich in these experiences.^{11,32,34} A conundrum in overcoming age bias in traditional physical therapy settings is that the majority of older adults access physical therapy for short episodes of care when experiencing serious functional limitations lowering their quality of life. Many of these older adults will achieve therapeutic goals resulting in positive outcomes, yet some will have progressive health conditions that continue to impact function. Others, with an acute condition overlying several chronic conditions, progress more slowly than younger cohorts.

These interactions, particularly if occurring in settings viewed by the student as uninspiring and depressing, are likely to reinforce negative stereotypes rather than dispel them. Without exposure to older adults who are aging well, students' perceptions of old age and the range of prognostic possibilities are shaped only by experiences with older adults who are aging poorly.

Qualified Faculty

The 2008 IOM report¹ emphasizes the need for more geriatric specialists across professions, not only to deliver clinical services, but also to guide clinical practice, lead change, and educate generalist practitioners. In physical therapy, this lack of specialists is particularly evident among academic faculty. Geriatrics is not listed among the top 10 primary areas of core faculty content expertise on CAPTE's summary data of faculty in PT education programs.³⁵ Interestingly, pediatrics is identified as the fourth most common primary area of content expertise among PT faculty. Perhaps even more alarming is that only 4.3% of this faculty cohort identified geriatrics as even a secondary area of expertise. Similar data on primary and secondary content expertise for PTA faculty is not reported.³⁶

This lack of academic faculty with expertise to guide geriatrics suggests a lack of advocates with sufficient expertise to guide curriculum development efforts related to aging and the older adult. By default, this limitation also places more responsibility on clinical instructors, working directly with students and their older adult patients, to ensure students attain essential competencies in this area. Yet the economics of geriatric care, accompanied by restrictive payer policies, pose unique challenges and barriers to ensuring the clinical instructor has the

requisite expertise and sufficient time to adequately guide learning activities and assure readiness for practice in geriatrics. The quality of health care services provided and the willingness of health professions students to seek employment in settings focused on older adults are strongly influenced by practitioner attitudes toward older people.^{29,32,34,37-39} Faculty (academic and clinical) with expertise in aging and geriatrics are critical for modeling positive attitudes toward working with older adults, and advancing student preparation for working with older adults.

Targeted Clinical Experiences

Clinical education is critical in developing competent, entry-level practitioners ready to work with older adults. Breaking down stereotypes, guiding students through complex decision making with real patients, demonstrating a patient-centered approach, and teaching communication and patient education strategies are best applied through active engagement with older adults under the guidance of a skilled practitioner. Advancing economic constraints in the health care environment make it increasingly difficult for academic programs to maintain partnerships with geriatric-focused clinical sites, particularly at the intensity level required to achieve requisite competency.

Reduced reimbursement for rehabilitation services juxtaposed with increased productivity expectations severely limit the time available for clinicians to supervise students in the real-world clinical setting. In some instances, reimbursement is restricted to services provided by licensed personnel,⁴⁰ making student supervision and teaching more of a distraction than a core value for many facilities with a heavy investment in services for older adults. In all settings, geriatric health care providers are being asked to deliver more services with fewer practitioners. Staffing changes are frequent and full-time professionals are increasingly being replaced by per diem staff. Cost containment efforts push earliest possible discharge from high-cost, acute care facilities into lower cost environments, placing greater pressure on skilled nursing facilities, rehabilitation facilities, and home care to accept a greater number of patients, and patients with a higher level of acuity and complexity. These external factors all impact PT and PTA education programs' ability to place students in clinical rotations where they are able to work and interact with older adults. Although it is clear that positive and enriching geriatric-focused clinical education experiences can be delivered,^{34,41,42} issues associated with reimbursement for services provided for older adults by students

and productivity expectations have made it increasingly difficult to replicate these examples broadly.

PT and PTA Post-Entry Opportunities to Enhance Skills in Geriatrics

A number of postprofessional opportunities exist for enhancing competence in geriatrics. The American Board of Physical Therapy Specialties (ABPTS) offers specialty certification in 8 different practice areas, including the geriatric clinical specialist (GCS) certification. Available to PTs since 1992, the GCS is the second most popular area for specialization (representing 10.9% of all ABPTS certified specialists in 2013); specialization in orthopedics (representing 59.3% of all ABPTS certified specialists in 2013) is by far the most popular area for ABPTS specialty certification.⁴³

A limited number of post-entry-level clinical residencies, credentialed by the American Board of Physical Therapy Residency and Fellowship Education, provide PT clinicians (most often a PT within the first 2 years of practice) with focused and mentored learning experience combined with didactic content and individual evaluation toward achievement of advanced skills in the specialty practice area.⁴⁴ As of the end of 2013, there are only 11 credentialed physical therapy residency programs in geriatrics in the US, and 2 programs seeking approval.⁴⁵ This is among the lowest number of physical therapy residencies of any of the established residency tracks. In contrast, there are 73 credentialed orthopedic residencies, with another 13 developing; 25 residencies in neurologic physical therapy and 28 in sports physical therapy, each with 3 additional residencies in development; and 14 in pediatrics, with 2 developing. To date, no credentialed fellowship programs exist for geriatric physical therapy. The reasons for the lagging development of geriatric residencies and fellowships are unclear. One can speculate that the lack of openness of recent graduates to working with older adults and financial constraints of geriatric practice settings contribute to their slow development.

To further enhance physical therapists' clinical decision-making skills and expertise in the design and delivery of effective exercise programs for aging adults, the Section on Geriatrics of APTA established its Certified Exercise Experts for Aging Adults (CEEAA) program. From 2009 through 2014, almost 900 physical therapists will have become CEEAA-certified.⁴⁶

A new designation for the PTA was first introduced in 2008, Recognition of Advanced Proficiency in Geriatrics for the PTA. Currently, around 40 PTAs hold this designa-

tion.⁴⁷

DISCUSSION AND CONCLUSION

The health professions in the US are not going to meet the health needs of older Americans solely by increasing the numbers of specialists in their disciplines. Less than 1% of physicians,²⁷ pharmacists, physician assistants, nurse practitioners, or PTs⁴³ are board-certified or credentialed in geriatrics.¹ General practitioners need a high level of competence in working with older adults, whether they are ill, disabled, or well. This does not negate the importance of specialist preparation in geriatrics. The specialist has been, and will continue to be, the expert who helps infuse meaningful geriatric content into entry-level curricula; the role model who demonstrates best practices and positive attitudes toward older adults and geriatric clinical practice; a guide to the incorporation of best practices into the clinical environment. However, the general practitioner, as well as practitioners who see their specialty in non-geriatric practice areas (orthopedics, neurology, cardiovascular and pulmonary, etc), are in reality all frontline practitioners for many older adults who make up a large percentage of their caseload. They must all be prepared to work with older adults.

Despite the importance of the topic, remarkably little has been done to explicitly examine the extent to which PT and PTA education programs incorporate geriatrics into their curricula. In a 1985 survey of all PT programs in the US, Granick et al,⁴⁸ concluded that geriatric content was fragmented, most typically offered as 10-15 clock hours of didactic content threaded throughout one 3-credit course. Only 10% of programs indicated they included a specific geriatrics course as part of the required curriculum. According to a 1990 APTA national survey of PT and PTA program directors, funded by the Administration on Aging, 17% of PT education programs indicated they had a stand-alone full-semester course on geriatrics and 75% threaded geriatrics through the curriculum. Additionally, only 21% of PT education programs and 30% of PTA education programs indicated that at least 75% of their students complete a geriatric clinical experience.⁴⁹ In a 1995 study focused on PT student intentions to work with older adults, Dunkle and Hyde¹¹ found that 44% of PT students indicated that aging-related content was threaded throughout the their curriculum, 42% indicated it was delivered in a stand-alone course, and 7% indicated it was delivered in both threaded and stand-alone coursework. However, the authors noted that students in the same cohort differed in their responses about how

the content was delivered, thus questioning reliability of the responses.

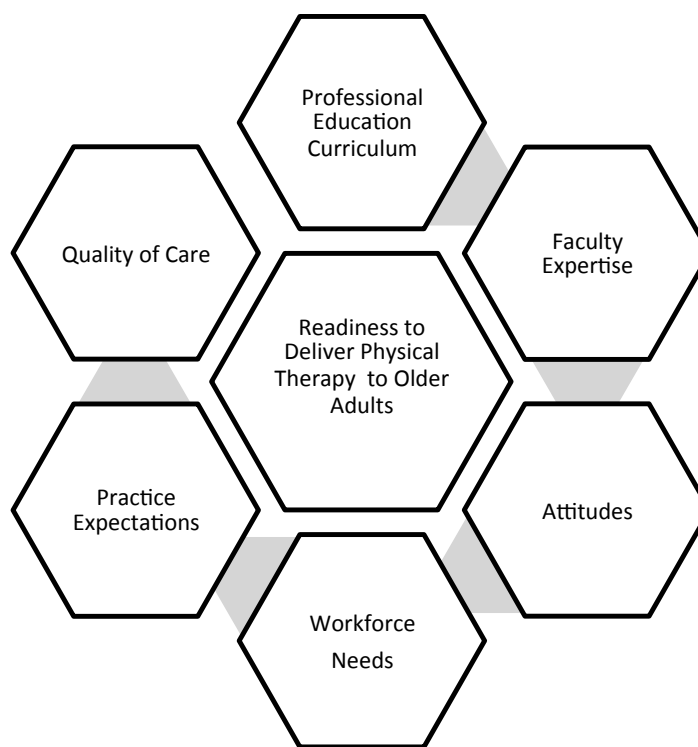
In 2001, a special issue of the *Journal of Physical Therapy Education* (JOPTE) was devoted to curricular initiatives to better prepare physical therapy graduates to work with older adults. Included was an article that surveyed the explicit aging-related content in PT education programs in the US. This article concluded that, despite substantial improvements in didactic geriatric content since the mid 1980s, inadequacies continued.⁵⁰ The themes running through the 2001 special issue were similar to the themes described 15 years earlier⁴⁸ and to the themes we continue to struggle with today: preparing students for the heterogeneity and complexity of the older adult patient/client, diminishing resources, interdisciplinary teams, health education and health promotion for older adults, neutral or

negative attitudes among students and faculty, and difficulty accessing geriatric-focused clinical education opportunities.⁵¹

Very little published work was located that examined the status of geriatrics in PTA curricula. Personal communications from PTA educators active in their regional clinical education consortia and in national special-interest groups for PTA educators indicated that the issues faced by PTA programs are similar to those identified by PT programs. Additionally, more stringent limitations to academic and clinical hours or credits imposed by most community colleges and by CAPTE makes adding content particularly difficult (oral and written communication, June 2013: Holly Clynch, PT, DPT, GCS; Fran Wedge, PT, DScPT, MSc; Maggie Thomas, PT, MA).

Figure 1 provides a “big picture” schemat-

Figure 1. Modifiable Factors Influencing Decisions Regarding Geriatric-Focused Content in Physical Therapy Education Programs



Readiness of graduates to deliver physical therapy services to older adults is influenced by internal and external factors, of which many are modifiable.

Professional education curriculum guided by accreditation standards yet highly influenced by institutional mission and faculty complement.

Faculty expertise across the continuum of patient care and spectrum that optimally represents needs for physical therapy services.

Attitudes displayed by academic and clinical faculty that convey value for working with older adults.

Workforce needs as reflected in demographics of the society.

Practice expectations are influenced by expectations of the profession and patients' needs.

Quality of care assures that the patient's needs to achieve optimal aging are afforded the first priority.

ic of the many factors influencing program decisions about the extent to which geriatrics is emphasized in their program. These factors are both internal and external to the program and all are, to some extent, modifiable. Programs and faculty have a major influence on the readiness and interest of their graduates to provide best practice to older adults across the continuum of fit to frail.

Both PT and PTA professional education curricula have 2 closely linked components, didactic and clinical. The entry-level PT program is typically a 3-year full-time graduate program with a minimum of 30 weeks of supervised clinical practice,¹⁹ culminating in the Doctor of Physical Therapy degree. The PTA program is typically a 2-year full-time program with a minimum of 13 weeks and maximum of 18 weeks of supervised clinical practice²⁰ culminating in an associate degree as a physical therapist assistant.

Although at different levels of depth and expectation for autonomous decision making, both PT and PTA education programs tend to first introduce relevant foundational materials in the biological, physical, behavioral, and social sciences; and then apply and build upon this content in the clinical sciences. Clinical sciences content, a major portion of most programs, is often organized around single body systems (musculoskeletal, cardiopulmonary, neurological, etc). Thus, clinical reasoning skills within these courses are narrowly focused on a single body system. Alongside these clinical science courses, and more variably presented, are the contextual factors and various roles of the PT or PTA. Clinical synthesis or clinical integration across content is often sequenced toward the end of the program of study, focusing on management of complex patients, which may include examples of older adults.

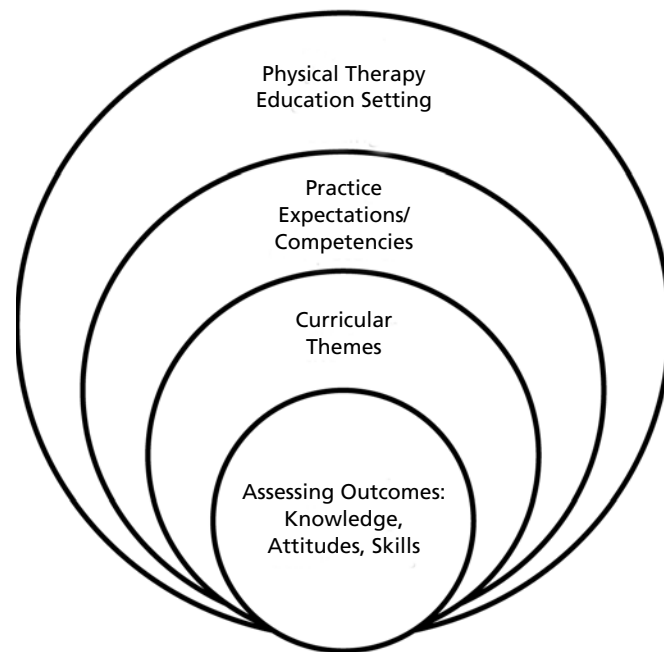
Clinical education experiences are critical to the development of competent, entry-level practitioners. Typically, the majority of full-time clinical experiences occur toward the end of the academic program. Although an academic faculty member stays in close contact with the clinical instructor and provides support as needed, the clinical instructor is the primary person designing, implementing, and assessing individualized student learning experiences and performance in the clinical environment. In addition to the required full-time clinical experiences, many programs also include integrated clinical experiences. These experiences occur on a part-time basis during semesters in which students are taking a full didactic course load. These are often early or specialized experiences for students to engage with patients and experience clinical practice concurrent with didactic

learning.

Given the marginal success over more than 30 years to better prepare practitioners for working with older adults, it is critical that a very overt and deliberate approach be adopted. Figure 2 depicts the major elements of a curricular model and their interrela-

tionships. The characteristics of the educational setting described in Figure 2 provide a snapshot of the essential atmosphere and values of the program. Program faculty must be knowledgeable and committed to the inclusion of unbiased and integrative content that effectively addresses each essential com-

Figure 2. Key Elements of a Curricular Approach to Guide the Preparation of Students in the Management of the Older Adult



Characteristics of the Educational Setting

- Embraces the concept that competent generalist practice requires high skill in care of older adults
- Seeks out and applies well-grounded practice expectations/essential competencies to guide curriculum development about aging and care of the older adult
- Threads aging-related content throughout curriculum; and, provides focused “stand-alone” content at critical points to integrate and apply across content areas
- Engages in regular and ongoing curriculum review to assure threaded content remains adequately represented and contributes effectively to practice expectations
- Employs knowledgeable faculty who serve as positive role models for working with older adults
- Facilitates opportunities for positive student interaction with older adults across functional levels
- Provides clinical education experiences in settings supportive of best practices in care of older adults
- Regularly encourages reflection-on-action/ reflection-in-action to examine attitudes and stereotypical beliefs and their impact on the value placed on older adults and intentions to work with older adults

Practice Expectations/Competency Domains

- Health Promotion and Safety
- Evaluation and Assessment
- Care Planning and Coordination Across the Care Spectrum
- Interdisciplinary and Team Care
- Caregiver Support
- Health Care System and Benefits

Critical Curricular Themes

- Stresses optimal aging across functional levels, regardless of age
- Rejects ageism and stereotypical beliefs about older adults
- Reinforces medical and contextual complexity; effective decision making with complex older adults
- Utilizes a patient-centered approach sensitive to patient-directed care decisions
- Employs effective communication with older adults, other team members, caregivers, and families

petency. Faculty must hold each other accountable for including threads of geriatrics throughout courses, as applicable; academic and clinical faculty must regularly role model clinical reasoning and decision making that incorporates complexity, demonstrates respect for the patient, and utilizes a patient-centered approach; all faculty must seek out and implement creative approaches for positive student interactions with a wide range of older adults.

The practice expectation and competency domains identified in Figure 2 are the 6 overarching domains that anchor the EC-PT and soon-to-be completed EC-PTA. These competencies are intended to represent practice expectations of every graduate, not just those expressing interest in specializing in geriatrics. The essential competencies documents interpret the CAPTE generic terminology of “across the continuum of care” and “across the lifespan.” These competency statements can be particularly useful for new faculty, for any faculty member preparing a new course, as an essential component of curriculum review efforts, and as a student and clinician self-assessment tool. Building these competencies into curriculum and course development efforts is critical to ensure student competence and readiness to treat older adults upon entry to practice.

The critical curricular themes were chosen carefully. They are all closely interconnected and all include knowledge, attitudes, and or skills deemed essential in preparing students to deliver effective and quality care aimed at fostering optimal aging. The concept of *optimal aging*, a refinement of Rowe and Kahn’s⁵² concept of *successful aging*, is defined as “the capacity to function across many domains—physical, functional, cognitive, emotional, social, and spiritual—to one’s satisfaction and in spite of one’s medical conditions.”^{53(p26)} This vision of the fundamental goal of our interventions and interactions with older adults naturally leads to a patient-centered and patient-directed approach in which the practitioner provides expert guidance and patient/family education but allows the patient/family to make care decisions; requires practitioners to be aware of and guard against decision making based on age biases and stereotypical beliefs about older adults; considers and interprets the impact of medical and contextual complexity on prognosis and plan of care; and has the skills to effectively communicate with older adults for informed and effective decision making.

The pervasiveness of age bias as a factor affecting practitioner attitudes about older adults is well described.^{30,33,34,54,55} Increasingly, evidence in the social and clinical sciences

Box 2. Guiding Principles of American Geriatric Society’s Expert Panel on Care of the Older Adult With Multimorbidity²⁵

- Elicit and incorporate patient preferences into medical decision-making
- Recognize the limitations of the evidence base, interpret and apply the medical literature specifically to older adults with multimorbidity
- Frame clinical management decisions within the context of risk, burdens, benefits, and prognosis (eg, remaining life expectancy, functional status, quality of life)
- Consider treatment complexity and feasibility when making clinical management decisions
- Use strategies for choosing therapies that optimize benefit, minimize harm, and enhance quality of life

indicates that education can shape attitudes related to ageism when combined with positive experiences in enriching clinical education placements.^{39,56} An implicit, and often explicit, message in many of these studies is that students and practitioners have particularly strong biases against working in settings where a large percentage of the patients are not just old, but are old and frail. Practice settings that provide services to a wide range of patients, including many older adults, don’t tend to be viewed as geriatric. The term geriatric often conjures up images of very frail older adults in nursing home settings.

The frail older adult is, indeed, one category of patients that PTs and PTAs work with frequently. However, we also work with very fit older adults and older adults who are functionally independent but may be struggling to maintain that independence. Schwartz⁵⁷ labels these categories: “fun,” “function,” “frailty,” and “failure.” Framing initial conceptualization of older patients around each of these categories, and using these categories to drive discussion and reflection about patient goals, prognosis, intensity, and functional focus of the plan of care and interventions, can help students recognize the heterogeneity across the older adult population, allow for more explicit reflections on age bias within each category, and reasonably narrow down discussions of goal setting within each category.

Ensuring that practitioners consider the heterogeneity of older adults has been identified as an imperative across health professions. In response to concerns that practitioners do not adequately consider complexity and multimorbidity in their decision-making frameworks, an AGS expert panel²⁵ recently produced a clinical reasoning framework based on 5 guiding principles for managing patients with multimorbidity. These guiding principles are listed in Box 2. These simple and straightforward principles serve as reminders of critical decision-making steps to assure multimorbidity and con-

textual complexity is given adequate focus in patient management. The AGS advocates a decision-making process that is flexible, anchored in patient preferences, patient-driven, reflective, inclusive, and pragmatic in applying evidence to guide decision making. Students should be required to incorporate these steps into their clinical reasoning paradigm.

Ironically, stereotypes about who falls into the category of “old” versus “not old” can also detract from the delivery of best practice for physically active and independent older adults who are often not perceived as old. This can be beneficial in that the older adult is less likely to be undertreated because of stereotypical views about performance capacity or motivation of “old” people. However, if the perception of someone as not being old is accompanied by assumptions that no consideration or adaptations need to be made related to aging-related physiological changes, multimorbidity, or contextual complexity, then delivery of best practice can also be compromised. Faculty should overtly discuss the importance of considering the potential complexity of all their older patients, provide concrete decision-making strategies, and give examples of how to effectively accommodate patient complexity without compromising the goal of optimal aging. Best practice requires unbiased decision making that does not ignore complexity inherent in many of our older patients but, rather, gives the patient options for best plans of care that maximize function given the unique and inherent complexity of this individual. Both academic and clinical educators must carefully consider their own conduct, learning experiences, and terminology used in conjunction with older adults.

The EC-PT highlights the importance of effective communication and interpersonal and interprofessional relationships in the care of the older adult. The titles of 3 of the 6 organizing domains of the essential competencies highlights this emphasis: Care Planning and Coordination Across the Care

Spectrum, Interdisciplinary and Team Care, and Caregiver support. All 6 domains have specific subcompetencies addressing interpersonal communication skills and interprofessional collaboration. Ensuring students have the skills to feel confident communicating with patients, families, and other health care professionals under a variety of circumstances is imperative. The importance of interdisciplinary team training was highlighted in 2011 with the APTA endorsement of the PHA *Position Statement on Interdisciplinary Team Training: An Essential Component of Quality Health Care for Older Adults*.⁵⁸ The need for strong interdisciplinary/interprofessional (ID/IP) team care relates back to the medical and contextual complexity of many older adults and the health care system itself. Minimizing patient complications and adverse events is enhanced by a team that communicates well, understands the roles of various team members, and recognizes the needs of the individual patient, particularly during transitions in care. Didactic preparation and clinical opportunities that allow students to experience positive team interactions and its benefit on patient outcomes are often exemplified through service learning activities that expose students to older adults as well as make them a member of an ID/IP team.^{31,37,38,41,42}

Individual patient-practitioner communication, also critical, requires explicit discussion and practice, particularly with complex patients.^{32,59} Lack of confidence and inexperience interacting with older adults with communication impairments (eg, vision, hearing, speaking, cognition) is often identified as one of the underlying reasons students are uncomfortable working with older adults. Communication can also be impacted by generational differences that require students to recognize and be sensitive to different generational norms and to truly respect the decisions of their older patients, even if the decisions are counter to the student's recommendations.⁶⁰ Students often voice frustration when a patient decides on a course of action that seems less than optimal to them.

The themes of patient-centered care and effective communication are often intertwined. Weaving this content through courses and providing opportunities for simulations and role playing help prepare students. Clinical experiences need to carefully and overtly address communication skills. Directed experiences such as integrated clinical activities that provide opportunities to communicate with individuals with communication limitations (eg, hearing loss or dementia) and receive reflective feedback can be very beneficial in developing skills and building confidence.

Student beliefs, values, and attitudes can be positively influenced by professional role models and by reflective interactions with older adults.^{11,29,31–34,39,41} Dispelling stereotypes and immersing students in enriched geriatric environments with positive role modeling and supportive instructors is key to turning the tide of interest. Academic and practice communities should join forces to create clinical education opportunities for students that will positively impact student decisions to seek positions where they will work with older adults. Such collaboration can only help to close the gap between demand and supply for health professionals that are qualified and motivated to work with older adults across the continuum of fit to frail.

This paper provides a review of recurring efforts over several decades to encourage more comprehensive preparation of students for working with older adults. Despite these efforts, the health care workforce, including that for physical therapy, remains underprepared. The essential competencies for PTs are critical to curriculum development and preparation of a physical therapy workforce that is qualified and willing to work with older adults. Cooperation among academic and clinical communities is essential to ensure positive learning experiences to accomplish this. We provide a model that summarizes the characteristics of the educational settings, required practice expectations, and curricular themes related to the management of the older adult that should be utilized by all PT and PTA education programs. This paper also notes major modifiable factors that can influence the readiness of graduates to meet the health care needs of older adults. Through the explicit and concerted efforts outlined here, we believe that the physical therapy profession will be better prepared to meet the workforce needs created by an aging America.

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