

**Petition to
The American Board of Physical Therapy Specialists
& The American Board of Physical Therapy Education
Residency and Fellowship
for Recognition of**

PRIMARY CARE

**as an Area of Specialty and Residency Practice in
Physical Therapy**

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ATTACHMENTS:

ATTACHMENT A: Primary Care Specialized Knowledge Matrix

ATTACHMENT B: Primary Care Education & Training Matrix

CRITERIA #1: Demand

1) Letters of Support

Over 100 signatures of support were obtained for a primary care physical therapy specialty area of practice (Appendix A). Letters submitted were appropriate and strongly support the demand for this area of specialized practice (Appendix B).

2) Estimate the number of physical therapists currently practicing in the proposed specialty area, documenting the process and providing a rationale for how numbers were derived. Identify the types of practice settings for these physical therapists (e.g., academic, hospital, private practice, managed health care).

Introduction. According to the American Physical Therapy Association (APTA) 2018 Workforce Data there are 217,691 licensed physical therapists in United States. Of these, 68,968 are APTA members, representing 30.14% of the total market share (see Table 1). In 2017 APTA hired a consultant to lead a primary care specialty feasibility practice analysis.

Based on the feasibility practice analysis, reports, and self-identified primary care physical therapists across hospital, private practice, health systems, home health, military, veteran affairs, academic, and rural health settings, it is estimated that approximately 6,152 physical therapists practice in primary care settings. The breakdown is as follows (also see Table 2):

- Rural setting. 5,750 APTA members meet the criterion of rural physical therapists (5,694 by zip code and 56 by self-identification), a setting determined to fall in the defined category of primary care physical therapy. Rural setting was determined using Health Resources & Services Administration (HRSA) criteria.¹ APTA staff identified members within the association's member information system (iMIS) whose zip code matched the HRSA criteria.
- Uniformed services. Per information captured via leaders in the uniformed services, an estimated 402 physical therapists are reported to practice primary care physical therapy in the military or uniformed services, Veterans Administration, and the US Public Health Service, including Indian Health Service, Bureau of Prisons, Food and Drug Administration, and Department of Defense sectors.
- Self-identified primary care physical therapists. During the practice analysis and prior to dissemination of the primary care feasibility pilot survey, active-duty service women and men, APTA members, and nonmembers were solicited by email and by word of mouth to self-identify as working in primary care clinical practice settings; 67 positive responses were received from members in hospital, private practice, health system, home health, academic, and rural health settings. These names were cross-referenced with those identified above, and any duplications were extracted.

The practice analysis survey (Appendix C) was sent to a total of 11,750 physical therapist members and nonmembers, and 1,166 initial responses were received, for a response rate of 9.9%. Of those, 223 respondents (2%) answered “yes” to the first 3 questions on the survey, which determined if they were primary care physical therapists practicing at the self-defined level of a specialist. The yes/no questions were as follows: (see survey results in Practice Analysis Raw Data in Appendix D)

1. Does the initial description of this new specialty describe your own clinical practice?
2. Based on the initial description of this new specialty, I consider myself to be practicing Primary Care Physical Therapy at the level of a Specialist.
3. I am willing to participate in this survey.

Only these respondents were eligible to complete the survey (Consultant Summary in Appendix E.)

Table 1. Total APTA PT Members

PT Members	June	December
2017	65,487	63,856
2018	67,703	65,614
2019	68,968	

Source: APTA membership database

Table 2: Primary Care Feasibility Pilot Sample

Group	Total in Group*	Proposed Sample Size
Military, VA, and others (self-identified)	67	67
Rural health self-identified APTA members	56	56
Federal Section APTA members	494	494
PTs with rural zip codes and with 5+ years of experience	5,697	693
Member of 2+ clinical sections* and with 5+ years of experience	4,632	693

- Excludes education, private practice, health policy, and research sections when determining 2 or more clinical sections. Private practice was excluded because 65% of private practice section members were also members of other sections, and including Private Practice Section members would have resulted in a large number of duplications.

- 3) Estimate the percentage of time that physical therapists currently practicing in the proposed specialty area devote exclusively to practicing in that area. Provide supporting documentation that details the process and rationale for how estimates were derived.**

Based on survey results to question 4.10 noted in Table 3 below, physical therapists working in a primary care model spend, on average (median), 50% of their time practicing in the specialty area of primary care.

Table 3. Percentage of Time Spent in Direct Primary Care Physical Therapy
 4.10 **Please indicate the percentages of your time spent in each of the following types of professional activities. Please indicate by percentages for a total of 100%. (Direct primary care physical therapy patient/client management). Respondents were limited to brief text responses.*

Statistic	Value
Minimum	0
Maximum	100
Sum	10,114
Mean	50.07%
Median	50.00%
Mode	70.00
Standard Deviation	29.38
Valid Responses	202
Total Responses	202

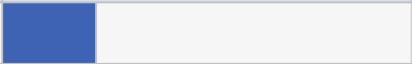

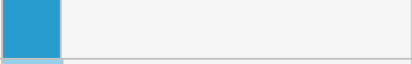
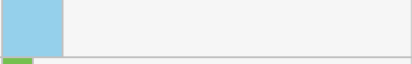
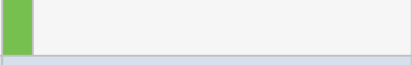
*See Section 4 (results)

- 4) Estimate the number of physical therapists who would likely seek board certification in the proposed specialty area during the first 5 years that board certification would be available. Provide supporting documentation that details the process and rationale for how estimates were derived.**

Based on the 2018 practice analysis survey results from question 4.2 (see Table 4 below) on the percentages of therapists (see Primary Care Practice Analysis Summary) it is estimated that 70% of primary care physical therapists will definitely or possibly take the primary care certification exam within the first 5 years of the approval of primary care as a specialty area of practice. Using the 6,152 estimated practicing primary care physical therapist calculation from petition section 1.2 above, and the 20.4% (Definitely Yes) and 51.6% (Possibly Yes) that represent 'yes' in Table 4 below, between 1,255 (20%) and 4,306 (70%) are estimated to sit for the exam over the next 5 years.

Table 4. Responses to Sit for the Primary Care Certification Exam
 4.2 If a primary care specialty were offered by the American Board of Physical Therapy Specialists, would you apply for a take the certification exam?*

Respondents could only choose a single response.

Response	20%	40%	60%	80%	100%	Frequency	Count
Definitely Yes						20.4%	46
Possibly Yes						51.6%	116
Not sure						11.6%	26
Probably Not						12.0%	27
Definitely Not						4.4%	10
Not Answered							5
						Valid Responses	225
						Total Responses	230

*See also: Primary Care Survey Section 4-5 Results; Practice Analysis Summary PC.

CRITERIA #2: Need

- 1) Describe how functions provided by the physical therapist practitioners in the proposed specialty area will fulfill the mission of the American Physical Therapy Association (HOD 06-93-05-05) “to further the profession’s role in the prevention, diagnosis, and treatment of movement dysfunctions and the enhancement of the physical health and functional abilities of members of the public.”**

Introduction. Physical therapists have a unique role in the health care system providing a distinctive knowledge-base of the movement system, and expertise in mobility and function. The primary goal of physical therapist patient management is to promote purposeful, precise, and efficient movement across the lifespan. The ability of patients/clients to access physical therapists’ services is at the core of the physical therapist’s ability to impact the health of society. Recognizing that physical therapists in primary care roles would help facilitate and increase patient access to physical therapist services, in 2015 the APTA House of Delegates directed the association to explore the roles of and opportunities for physical therapists in primary care, as well as the feasibility of obtaining primary care practitioner status. The adopted charge RC 19-15 states:

“That the American Physical Therapy Association investigate and identify:

- The roles of physical therapists in primary care teams;
- Those services of physical therapists that may qualify as components of primary care delivery; and,
- The current and future opportunities for physical therapists to integrate these roles and services into practice, education, and research.”

Having physical therapists play a greater role in primary care has been a priority of APTA’s prior to the 2015 House of Delegate action. APTA’s Guide to Physical Therapist Practice 3.0 (Guide), presents a multidimensional perspective on the role of PTs in primary care and PTs who provide primary care services. The Guide states: “For acute musculoskeletal and neuromuscular conditions, triage and initial examination are appropriate physical therapist responsibilities. The primary care team may function more efficiently when it includes physical therapists, who can recognize musculoskeletal and neuromuscular disorders, perform examinations and evaluations, establish a diagnosis and prognosis, and intervene without delay. For individuals with low back pain, for example, physical therapists can provide immediate pain reduction through programs for pain modification, strengthening, flexibility, endurance, and postural alignment; instruction in activities of daily living (ADL); and work modification.” The Guide also acknowledges the expertise of PTs in the areas of oncology, cardiovascular and pulmonary, vestibular chronic and acute neurological (central and peripheral lesions), women’s and pelvic health, pediatrics, sports-related injuries, and work-related disorders.² APTA’s Vision for the Profession, “Transforming society by optimizing movement to improve the human experience,” focuses on the impact that physical

therapy can and must have on individuals, communities, and populations. APTA's mission statement, "Building a community that advances the profession of physical therapy to improve the health of society," reinforces that concept. The 2019-021 Strategic Plan adopted by the APTA Board of Directors highlights primary care under the main pillar of "elevating the quality of care provided by PTs and PTAs that seeks to expand access to physical therapy in primary care settings." (See Vision, Mission, and Strategic Plan at www.apta.org/VisionStrategicPlan.) The establishment of a recognition process for physical therapist certified clinical specialists in primary care will enhance physical therapist participation in primary care health care delivery models, and patient access to these critical services.

2) Identify specific public health and patient care needs that could be better met by a physical therapist in the proposed specialty area compared to a non-specialist.

Introduction. 'The US Population is projected to grow by 10.3%, from about 326 million to 359 million. The population under age 18 is projected to grow by only 3.5%, while the population aged 65 and over is projected to grow by 48.0%. Subsequently, a primary care physician shortage of 21,100 to 55,200 physicians is projected by 2032. An estimate by the Health Resources and Services Administration indicates that nearly 14,472 primary care physicians are needed to remove the primary care shortage designation from all currently designated shortage areas.³ To put this into perspective, the US has 1 practicing primary care physician for every 1,475 persons. Other professions are trying to fill this gap such as the nursing profession. Currently, the growth rate of the nursing workforce is now 3 times that of the workforce for doctors (9 times that for nurse practitioners), to try to meet increasing demand within primary care.⁴ This shortfall range reflects the projected rapid growth in the supply of Advanced Practice Registered Nurses (APRNs) and Physician Assistants (PAs) and has in part driven House of Delegate and Board of Director actions related to primary care and physical therapist practice. The following will make the case for the need for a primary care physical therapist, whose skill set exceeds that of a non-specialist.³

Physical therapists in the military have been practicing successfully as primary care providers since 1972 in both peace and war-time conditions.^{5,6,7} To adapt to the ever-changing civilian health care system, and to optimize value-based care, the role of physical therapists in primary care models has evolved. The following examples illustrate how physical therapists can bring value to significant public health and patient care need areas—patients with orthopedic, geriatric, sports conditions, tactical athletes, and patients being served in rural settings.

Orthopedic. In the primary care setting, evidence suggests that 15% to 30% of all primary care visits involve orthopedic conditions.^{8,9} The point of entry for many patients with an orthopedic complaint is the emergency department. In an investigation of 54,915 patients evaluated in an emergency department, Bellan et al noted that the most common symptom was back pain (57.1%), and peripheral joint complaints represented 42.9% of all visits.¹⁰ Of interest to the physical therapy profession is that 83% of those

evaluated were discharged by the emergency department physician and only 15.1% were referred to an outpatient clinic.¹⁰ Mackay et al also noted that musculoskeletal complaints are a common presentation in the Emergency Department, as patients are seeking rapid evaluation and treatment.⁹

Physical therapists as movement experts are skilled at diagnosing and managing patients with orthopedic and other movement-related conditions. Childs et al pointed this out in 2005 when they compared examination scores of the following groups: student physical therapists, licensed physical therapists in general, physical therapists who were certified specialists in orthopedics or sports, medical students, physician interns and residents, family practice physicians, orthopedic surgeons, general surgeons, pediatric physicians, gynecologists, and psychiatrists.¹¹ The study focused on musculoskeletal diagnoses commonly encountered in a primary care setting and consideration of orthopedic emergencies that warrant immediate referral to an orthopedic surgeon or the emergency department. Orthopedic surgeons received the highest grade, followed by physical therapists with an orthopedic or sports certification. Family practice physicians, physician interns, general surgeons, residents, pediatricians, internal medicine physicians, medical students, gynecologists, and psychiatrists all scored lower than orthopedists and physical therapists. A similar study by Runkle et al compared the knowledge of civilian physical therapists who do not practice in primary care with military physical therapists.¹² Civilian physical therapists scored lower than military physical therapists on knowledge of managing musculoskeletal conditions, and the authors speculated that the difference is the expanded practice privilege set for military physical therapists practicing as primary care providers. This gap could be addressed through the specialist certification process of a primary care physical therapist.

Physical therapists with continued training after entry-level education that mirrors the skills of a military physical therapist working as a primary care provider can address the public health need of caring for patients with orthopedic conditions and can reduce the burden on emergency departments, urgent care centers, and primary care clinics by effectively managing patients with orthopedic conditions.

Geriatrics. According to Census projections, the US population will increase by 10.3% from 2017 to 2032. Although the population of all age groups are expected to increase, the population of those aged 66 years and older will grow by 60%. Petterson et al project that the total number of office visits to primary care physicians in the US will increase from a base of 462 million in 2008 to 565 million in 2025.¹³ The authors note that older adults have more office visits than do younger adults potentially due to multiple morbidities. Frailty is common in older adults with multiple morbidities or complex chronic conditions. Frailty is defined as a state of increased vulnerability from age-associated decline in reserve and function resulting in reduced ability to cope with everyday or acute stressors.¹⁴ Frailty places older adults at greater risk for adverse outcomes and is associated with increased risk of recurrent falls, fractures, and disability as well as increased health service utilization and mortality.¹⁵ Frailty is estimated to be

present in more than half of older persons with heart failure or chronic obstructive pulmonary disease.¹⁶ Frailty is present in an estimated 32% of community-dwelling patients with Alzheimer's disease, and cognitive impairment is present in up to 40% of people identified as frail.^{17,18} Older persons with urinary incontinence are 6.5 times more likely to be frail than are those who are continent. Frailty is a significant predictor of future falls in community-dwelling older adults.¹⁹ Therefore, frailty is emerging as a predictor of adverse outcomes in older adults, as it is the combination of aging with medical conditions, and is complicated by other factors such as socioeconomic circumstances that lead to worsening health.¹⁵

In addition to outpatient and rehabilitation settings, falls risk assessments commonly are performed in the emergency department. Tsonga et al reported a frequency of falls in older adults with knee osteoarthritis to be 63.2% over the course of 1 year.²⁰ Doré et al reported that participants with knee osteoarthritis had a 39% higher risk of future falls.²¹ Referrals for older adults are common in this setting, including determining patient placement and whether patients are safe to return to their current living situation. Currently in many emergency department or urgent care centers, this decision is being made by health care providers who are not trained to evaluate these patients for safe discharge dispositions. Clinical practice guidelines developed by the Centers for Disease Control and Prevention and the American and British geriatrics societies describe balance exercises as effective and essential components in a falls-prevention program. Not only can primary care physical therapists evaluate if the patient is a falls risk, they can also treat these individuals with appropriate balance exercises to prevent future falls.^{22,23} Currently many patients that are being seen in the primary care setting without involvement of a physical therapist are not being managed effectively. This leads to a fear of movement secondary to a fear of falling. Physical therapists performing falls-risk assessments could fill an important void in this primary care environment, including determining if patients are able to return home safely.

Physical therapists with continued training post-entry level education and working in primary care settings are in a unique position to consider the effect of multiple comorbidities in the context of the older patient's complex individual circumstances and prescribe treatment to attain the patient's goals. Physical therapists can prescribe specific tailored interventions that are graded in intensity to match the older patient's abilities. Improving the reserve of the older patient and focusing on function will potentially reduce the manpower and economic strain on the healthcare system.

Sports. Athletes are more likely to be in an environment in which a primary care team is available when they are in the collegiate or work setting. This is not the case for athletes in a rural setting or in many high school settings. For example, in Arizona less than half of the high schools have an athletic trainer or sports certified physical therapist. This lack of supervision leads to coaches having to make decisions on medical abilities to play or not to play, wellness concerns, and primary care complaints of the athletes ranging from rashes, contusions, sprains and strains, to more complex medical decisions such as

concussions during all practice sessions and often during athletic competitions. The coach may have very little information or medical training to answer, treat, or manage these athletes. Another important factor to consider is the number of athletes that the coach must oversee. The athlete may have a medical concern that needs attention, but the coach is the only individual that is trying to cover a team of 30-60 athletes.

Athletes must undergo a pre-participation physical examination (PPE) to participate in athletics. The overall goal in performing a PPE is to promote the health and safety of the athlete in training and competition through the detection of underlying medical problems that may limit competition or place a person at increased risk. Therefore, the PPE is a tool to screen athletes for injuries, illness or other factors that might put them or others at risk. Ideally, the PPE will also identify conditions that might interfere with optimal athletic performance and might require further investigation and/or treatment. For many adolescents, the PPE is their only contact with a medical provider in any given year. One interesting study notes that up to one-third of parents identify the PPE as their student-athlete's only contact with the health care system—even when up to 90% had an identified primary care provider and their insurance covered yearly health maintenance exams. While 95% of parents agreed with the primary goals of the PPE—to detect conditions that might affect participation—and 68 percent believed it should be a minimal examination, one-third thought the PPE should address other health issues and might be a reasonable alternative to routine comprehensive exams.²⁴

Given the above, and viewing the PPE as a point of entry to the health care system, follow-up becomes a critical component of the PPE process. PPEs are currently performed by physicians and physician extenders such as physician assistants or nurse practitioners. Primary care physical therapists have the knowledge, skills, and ability to perform PPEs for athletes, as they are best suited to identify if the athlete's musculoskeletal system has impairments in body structure and function. The physical therapist subsequently can develop the appropriate patient plan of care. Again, physical therapists with continued training after entry-level education that mirrors the skills of a military physical therapist working as a primary care provider can address the broad spectrum health care needs for this patient population.

Tactical Athletes. Tactical athletes can include individuals in the protective services, military, and firefighters. These individuals routinely find themselves in uncontrolled environments and carrying upwards of 40 to 120 pounds in gear.²⁵ The physical demands challenge their physical well-being potentially impacting their livelihood and overall health. Like primary care physical therapists working in the military, physical therapists are educated to diagnose, treat, manage, and determine return to work and sport. Without physical therapists on the front lines to encounter and manage tactical athletes with complex conditions and demands, given the sheer number of patients compared to the number of practicing physicians, one could deduce there is potentially a national compromise when physical therapists are not purposely positioned in primary care teams in the military to care for and return soldiers safely back to service or home.

Establishment of the primary care physical therapist as a specialty area will facilitate physical therapists being included in health care delivery models for this population.

Rural Health. Primary care physical therapists provide care for populations of people who live up to hundreds of miles from their primary care physician, advanced nurse practitioner, or physician assistant. This care occurs in clients' homes, in hospitals, skilled nursing facilities, and in outpatient ambulatory settings. These physical therapists must have expansive knowledge and a vast skill set to best meet the broad and varied needs of this patient population. A primary physical therapist in a critical access hospital must have the ability to practice in nearly every setting: outpatient clinic, acute, nursing home, home health, acute rehabilitation facility, inpatient and outpatient psychiatric practices, and emergency department while addressing the needs of individuals across the lifespan.²⁶ Rural health primary care physical therapists report that acute care in the hospital setting is a common area of need for a physical therapist's expertise. The needed skill set includes managing patients with conditions related to oncology, cardiovascular and pulmonary, neurology, pediatrics, worker's compensation, sports, orthopedics, prevention and health promotion, and women's health. According to Jacobs-Mann, the most common types of conditions seen in rural health physical therapy include farming/industrial injuries, musculoskeletal conditions, and repetitive trauma and vibrations from machinery.²⁷ Mwachofi states: "The National Safety Council ranks farming as one of the most hazardous occupations, with high rates of job-related illnesses, injuries and disabilities that are costly to families and to the economy at large."²⁸ In addition, Metter et al state: "As people age, changes in balance, proprioception, muscle strength, attention, and vision make compensation to environmental hazards more difficult."²⁹ Geriatric injuries reported and treated by primary care physical therapists in rural settings include falls, fractures, joint dislocations, and intracranial injuries. Advanced training to the clinical specialist level is needed to provide the necessary quality of care.

Summary. The information provided above clearly demonstrates how the physical therapist trained and specializing in primary care can positively impact public health. A successful primary care model requires practitioners with advanced training related to patients across the lifespan, with varied medical conditions, seen in multiple settings; training above and beyond what is provided in an entry-level doctor of physical therapy (DPT) program (and for that matter beyond entry-level nursing and medical education). The training will need to prepare practitioners to successfully manage a broad range of patients, from pediatric to geriatric populations. Therefore, clinical certified specialists in orthopaedics, sports, or geriatrics, while having advanced skills and knowledge base, do not have the breadth of training to address the needs of many segments of patients receiving care in primary care clinics. Last, these provided examples do not encompass all patient populations and practice areas that would be relevant to the primary care physical therapist, magnifying the need for training above and beyond entry-level education.

3) Specify how the functions performed by the physical therapists in the proposed area benefit the specific needs of the public's health and well-being.

Highlighting and enhancing the role of primary care is a key element in most proposals designed to improve patient outcomes and promote cost-effective health care delivery in the United States. With the aging population and the waning interest in primary care by US medical school graduates, some have projected a large shortage of general internists and family physicians to care for a growing number of elderly patients.³⁰ A 2019 study by Mabry et al compared the incidence of safety events in advanced-practice physical therapy with events associated with care provided by physicians and nurses.³¹ They found that advanced-practice physical therapy was similar in safety events to other primary care providers. Amidst a projected shortage in general internists and family physicians for the population at large, a primary care physical therapist has the training and practice experience to safely and effectively identify opportunities for prevention of chronic conditions and avoidance of preventable surgeries in individuals and populations as well as manage patients with complex comorbidities who may have treatable neuromuscular or musculoskeletal conditions.

An 2011 article in *The New England Journal of Medicine* states: “the Affordable Care Act promises to add 32 million Americans to the roll of the insured at a time when there is a shortage of primary care providers.”³² The authors state, “we believe that if we are to bridge the gap in primary care and establish new approaches to care delivery, all health care providers must be permitted to practice to the fullest extent of their knowledge and competence.” The challenge will be for all health care professionals to embrace these changes and come together to improve US health care.

As of December 2017, only 1 in 5 Americans met the US Physical Activity Guidelines for Health.³³ Carson et al reported that 8.3% of deaths were attributed to inadequate levels of physical activity, based on analysis of mortality data 1990-1991 through December 31, 2011, from the National Health Interview Survey for adults 25 years of age and older.³⁴ Physical inactivity and obesity are associated with several types of cancer, diabetes, Alzheimer's, and a host of other ailments.³⁵ Additionally, the high numbers of US individuals with obesity and other preventable diseases—caused by a lack of physical activity—is a national threat: 1 in 13 American troops are overweight³⁶ and 27% of young adults are too heavy to serve in the military.³⁷ Insurmountable military discharges are due to overweight. Returning to the population at large, Waters and Graf reported in October 2018 that Americans spent about \$480.7 billion dollars in direct health care costs in 2016 on conditions related to obesity and overweight.³⁷ Eight out of the 10 most expensive chronic diseases are more frequent in an inactive population. This costs America \$1.45 trillion annually, in direct medical costs and loss productivity.^{38,39} Primary care PTs would be educated and have the skills to perform annual checkups, diagnose a variety of movement-related disorders and identify barriers to general well-being.

Entry-level physical therapist education provides foundational knowledge and skill regarding generalized, noninvasive review of systems in the 4 primary areas of practice: musculoskeletal, neuromuscular, cardiovascular and pulmonary, and integumentary. Physical therapists who seek additional training related to the primary care specialization will have advanced skills allowing them to enhance the health care of a wide range of patient populations, many presenting with complex conditions and health histories.

By definition, the primary care physical therapist specialist is educationally, clinically, and practice-wise prepared to encounter and benefit the spectrum of most ages of the population; functions to improve the health of varied populations presenting with complex health care needs. The primary care physical therapist specialist is an experienced physical therapist practitioner who:

- Instead of specializing and limiting practice to 1 area of physical therapy has advanced expertise to practice across the lifespan to both evaluate and treat clients across a wide spectrum of health conditions.
- Has attained this experience through formal post-professional education or through many years of experiential learning opportunities.
- May be working in a variety of settings including a rural setting where patient choices for physical therapist services are limited, an acute/urgent care or emergency department setting, a hospital-based outpatient setting, or a private practice setting.
- Is practicing at a higher level of care (more efficiently and effectively), including a higher level of decision-making, than nonspecialists are providing.

Although primary care specialists may be ABPTS board-certified in another specialty, they do not limit their practice to that area of specialization.

4) Describe and document, with references, how the public's health and well-being may be at risk if physical therapist practitioners do not provide services in the proposed specialty area.

Introduction. Evidence suggests that the current health care system overutilizes diagnostic imaging, surgery, and opioids. These 3 areas will be discussed in the context of how primary care physical therapists can directly reduce patient risk and address public health concerns.

Diagnostic Imaging. The American College of Physicians and the American Pain Society have published guidelines stating that patients with acute low back pain (LBP) of less than 4 weeks should not receive imaging, yet the use of advanced imaging increased dramatically from 2002 to 2008 among emergency room physicians. Liu et al note that clinical practice guidelines and several international campaigns such as Choosing Wisely® recommend that lumbar spine imaging be avoided in the emergency department for adults without traumatic LBP in the absence of red flags.⁴⁰ This recommendation is supported by various studies, including a review that reported no

difference in health outcomes between LBP patients who obtained imaging and those who did not, yet multiple studies exist describing overuse of the imaging modalities. Celina et al reported an important overuse of head computed tomography (CT) scans in patients aged 18-45 with mild head injuries.⁴¹ Celina et al noted that the main promoting factor for inappropriate ordering was injury mechanism. Only 2% of head CT scans were positive; that is, correlating with signs of suspected skull fracture and motor vehicle accident with high-energy impact. Inappropriate and unnecessary diagnostic imaging is associated with increased patient exposure to radiation, prolonged patient wait time for receipt of appropriate care, increased emergency department patient length of stay, patients undergoing more invasive procedures of limited or questionable benefit, and increased costs to the health care system. Studies have shown that patients who access a physical therapist prior to seeing a physician or physician extender are less likely to undergo diagnostic imaging testing. Thus patients seeing a primary care physical therapist working in an interdisciplinary primary care model would be less likely to undergo not only the testing but also subsequent more-invasive procedures often ordered based on imaging results.

For most patients with musculoskeletal conditions entering a primary care clinic, diagnostic imaging would not be indicated early in the plan of care, but recognition of patients who do need imaging followed by subsequent ordering of the appropriate imaging modality is essential for any primary care provider who is serving as an entry point into this health care delivery model. The primary care physical therapist will have this skill-set, as evidenced by the performance of physical therapists serving in a primary care role in the military and a large academic medical center.

Moore et al examined the diagnostic accuracy and appropriateness of orthopedic surgeons, physical therapists, and non-orthopedic physicians of referral of patients with musculoskeletal conditions for magnetic resonance imaging.⁴² The clinical diagnostic accuracy was significantly better by physical therapists and orthopedic surgeons than by those who did not practice in the area of orthopedics, and there was no significant difference in accuracy between the physical therapists and the orthopedic surgeons. It was also concluded that physical therapists made appropriate referrals to magnetic resonance imaging 100% of the time.⁴² Boissonnault et al investigated a university medical center in which physical therapists (with advanced training) obtained ordering privileges for plain film radiographs.⁴³ The medical center initiated a direct access program in which imaging privileges were deemed necessary to perform their duties effectively. A pilot study was conducted with 81 patients, and the author reported that physical therapists referred 9.9% of patients for imaging. A physician randomly reviewed charts from this patient population and determined that physical therapists made appropriate decisions 100% of the time. James and Stuart studied physical therapists serving in the role of primary care providers (specifically as an entry point for patients) and the ordering of imaging.⁴⁴ They concluded that patients received expedited care and that referral to radiology was reduced by 50% if seen initially by a physical therapist. In addition, 14 out of 14 orthopedists felt that the practice of physical therapists as primary

care extenders should be permanently adopted. Based on the studies mentioned above, there appears to be reduced risk of patient over-exposure to radiographic studies, decreased overutilization, and decreased image-related health system overspending when primary care physical therapists are included in the primary care health delivery system models.

Surgery. Early access to physical therapists' services has also been shown to reduce the ordering of advanced diagnostic imaging, which often leads to surgeries that may not have been necessary.⁴⁵ Many surgeries carry significant risk of down-stream complications such as deep vein thrombosis, infection, and death in some cases. One example is lumbar and lumbosacral spinal fusion for treating several degenerative disorders such as spinal disc herniation, lumbar spinal stenosis, and spondylolisthesis. The posterior rigid pedicle screw fixation system offers initial stability, a high fusion rate, and good recovery of normal sagittal parameters in the lumbar spine, but at a cost of adjacent spinal segments deteriorating rapidly. This leads to excessive mobility and increased intradiscal pressure in the adjacent segments. These biomechanical changes can lead to new complications, such as adjacent segment degeneration accompanied by facet hypertrophy, facet arthritis, and a higher risk of adjacent segment disease.

A second example is arthroscopic partial meniscectomy surgery when performed on Americans middle-aged and older. Nine randomized studies provide strong evidence that knee arthroscopy provides no greater pain relief or other improvements when compared with placebo or added to exercise.^{46,47} A recent randomized study compared exercise therapy of sufficient quality and quantity (1 hour, twice-weekly supervised progressive neuromuscular and strength exercises for 12 weeks) to arthroscopic partial meniscectomy alone.⁴⁸ Exercise was superior to arthroscopic surgery for improving muscle strength and equally good at reducing catching, locking, clicking, and pain when twisting the knee. Again, patients seeing a primary care physical therapist working in a primary care model early in a care management timeline would be less likely to undergo these invasive procedures, thus eliminating the risk of serious postoperative complications.

Opioids. The US makes up approximately 4% of the world's population yet accounts for 80% of the world's opioid use. Ninety-one million Americans—one-third of the US population—were prescribed opioids in 2015.⁴⁹ The amount of prescription painkillers dispensed in the US has increased fourfold from 1999 to 2013.⁵⁰ During this time, the number of deaths from opioids has quadrupled. The CDC in 2016 released specific prescribing guidelines to curtail the inappropriate prescription of opioids. Evidence indicates that early access to a physical therapist's services reduces the risk of opioid prescription and abuse.⁵¹ Thackeray et al's retrospective study states: "Among Medicaid recipients with new-onset LBP, the index provider's prescription and imaging decisions and patient demographics were associated with PT referrals and participation. A referral to PT and subsequent PT participation was associated with reduced opioid prescriptions during follow-up."⁴⁵ Therefore, a primary care physical

therapist managing the care of patients with acute and chronic conditions focusing on nonpharmacological management can reduce the number of patients taking opioids and, subsequently, reduce associated misuse, morbidity, and mortality.

Summary. The 3 examples of diagnostic imaging, surgery, and opioid management demonstrate the need for alternative models of care delivery as noted by Fairman et al in the New England Journal of Medicine.³¹ Primary care physical therapists can provide timely and effective patient management with a resultant significant reduced risk of major health complications. Designation of primary care physical therapist as a clinical specialist will facilitate participation of physical therapists in these practice models, and the required associated training will help ensure the needed competency.

- 5) Describe the reasons that the needs described above are not or cannot be met by physical therapists who do not have specialized education and training in the specialty area. If these needs currently are being met by nonspecialist physical therapists, describe how the needs could be better met by a physical therapist in the proposed specialty area than by a nonspecialists.**

Introduction. The goal of entry-level education is to produce graduates who are competent in a broad range of clinical settings and working with patients across the life span. Considering the sheer numbers of practice settings in which a new graduate might practice (acute care, aquatics, cardiovascular and pulmonary, hand therapy, neurological, geriatrics, orthopedics, pediatrics, sports, women's health, wound management, and primary care) and the inherent limited entry-level clinical education experiences, it is unreasonable to expect a graduate to be competent in all of these areas, working with patients of all ages, with varying degrees of medical complexity. This reality, and consideration of the aging population with growing numbers of comorbidities and increased complexity, presents the health care system with a significant challenge of meeting the needs of the population at large. The situation is magnified by the trend toward discharging patients from hospital settings in shortening timeframes, which means practitioners working in primary care settings are managing patients who are much more acutely ill. The challenge is producing and recognizing practitioners with a knowledge base and skill set of sufficient depth and breadth to competently manage patients with ever-increasing complex conditions. We believe this challenge can be met only by the creation of a physical therapist primary care clinical specialty and a primary care physical therapist residency education experience.

ABPTS states the following regarding clinical specialization: "Clinical specialization in physical therapy responds to a specific area of patient need and requires knowledge, skill, and experience exceeding that of the physical therapist at entry to the profession and unique to the specialized area of practice."⁵² Following this guiding statement, specific examples of patient need, and the required post-professional knowledge and experience required to address those needs, have been documented under Criterion #2: NEED in this document.

Summary. It is unreasonable to expect time-limited, entry-level physical therapist education programs to adequately prepare new graduates to provide quality care in a primary care setting. This petition is following ABPTS's recommendations by responding to a "specific area of patient need" that necessitates specialized "knowledge, skill, and experience" that must be specifically and intentionally sought out after entry-level training and generalist practice.

- 6) Describe the reasons that the needs as described above are not or cannot be met by other health professionals (including other allied health professions and beyond). If the needs are currently being met by other health professionals, describe how the needs could be better met by a physical therapist in the proposed specialty area than by a nonspecialist.**

Introduction. Initially noted in the United States military, the need for primary care physicians was greater than the supply, and thus the concept of the physician "extender" was born. In the 20th to 21st centuries, the need for primary care services in the civilian population also outpaced the number of physicians entering the specialty area of primary care. Concurrent with the increased demand in the primary care sector was the advancement of physical therapist practice and education. This has resulted in physical therapists evolving into a preferred provider for patients with a broad range of medical conditions. The current US medical model is based on "sick care" and relies on nurse practitioners and physician assistants as physician extenders in the primary care setting. Common conditions (e.g., neuromusculoskeletal, traumatic injuries, vestibular, high blood pressure) make up at least 60% of primary care and 15% of emergency room visits.⁵³ Physical therapists are movement experts and as such arguably are the best to initiate and/or be included on primary care teams to address movement-related health promotion, injury and chronic condition prevention, diagnosis, prognosis, and management of a wide variety of these common disorders. This unique background and training is what differentiates physical therapists from other providers participating in primary care models.

As movement system experts, physical therapists make unique contributions to patient-centered care in primary care settings:

1. The incorporation of physical therapists in patient-centered care optimizes patient outcomes and reduces health system costs (cheaper care and reduced unnecessary interventions and imaging).
2. Many primary care patients need care best provided by physical therapists. The population in the US is expected to grow 12% by 2030 and with the greatest growth in the 65+ age category.⁵⁴ Physician shortage is estimated to be between 40,000 and 105,000 by 2030, with the shortage of primary care practitioners in the 14,000 to 49,000 range. According to Houston et al, "Musculoskeletal complaints account for 10% to 15% of all visits to primary care physicians, and 70% of all new musculoskeletal injuries are treated by primary care physicians. [With] 90% of common nonsurgical orthopedic complaints are thought to be

manageable in the primary care setting, [a primary care physical therapist would provide invaluable expertise]."⁵⁵

3. Musculoskeletal dysfunction (MSKD) represents a large percentage of a primary care practitioner's caseload and is the least understood by them.⁵⁴ MSKD is the fourth leading diagnosis category for primary care practitioner visits.⁵⁶ Overall, more than 65 million health care visits were made in 2010 for musculoskeletal injuries. By far, the largest share of these visits was to physician offices, accounting for nearly 80% of all visits and for 62% of visits for musculoskeletal injuries.⁵⁷ Primary care physicians (PCPs) lack confidence in diagnosing and treating musculoskeletal complaints, indicated by surveys of PCPs regarding the areas in which they are least confident; MSKD is at the top.^{58, 59} In one survey of 297 primary care physician respondents, more than 80% reported a low level of confidence in performing a musculoskeletal physical examination.⁵⁸ In summary, primary care physicians are not well prepared to treat musculoskeletal disorders secondary to their limited education in treating such conditions.⁵⁹ Freedman and Bernstein concluded that musculoskeletal content taught in medical schools is not sufficient to provide optimal care for musculoskeletal patients.⁶⁰ Research conducted by Childs et al, suggests that PTs including DPT and MPT students were more knowledgeable in managing musculoskeletal conditions than were most physician specialists except orthopedic surgeons.⁶¹ Recognizing an orthopedic specialist could also address musculoskeletal conditions, a primary care physical therapist's training and work experience render this therapist with a greater depth of knowledge across a wider body of and management of non-musculoskeletal medical conditions, thus creating greater access to care and appropriate care early in the treatment course.
4. Approximately 38% of emergency departments are at or over capacity (50% for urban and teaching hospitals), and many hospitals report increased difficulty maintaining on-call physician coverage.^{62, 63} Physical therapists are filling this gap in many hospitals. Typical diagnoses evaluated by physical therapists for triage or physical therapy primary care include patients with the following:⁶⁴
 - a. Back pain
 - b. Shoulder pain/injuries
 - c. Knee pain/injuries
 - d. Ankle pain/injuries
 - e. Cervical pain/injuries
 - f. Vestibular or balance disturbances
 - g. Acute or chronic wound presentation or trophic changes of the skin, including general lower-extremity edema
 - h. Injury from a fall or recent history of falls or other trauma, except those at risk of head or spinal injury
 - i. Signs and symptoms of chronic neurological deficits and subsequent complications, except spinal cord injury patients T6 and above

A sample of surveyed emergency department PTs indicated that patient management most often involved patient education, self-management of the

patient's condition after discharge, and discharge planning.⁶⁵ Procedural interventions directed at pain management, exercise prescription, and assistive device training, though less frequent, were still utilized with a significant proportion of patients. Other services provided to varying degrees included safety assessments, consultation for other emergency department specialists, manual therapy, splinting, wound care, vestibular interventions, and requests for in-house imaging.

5. Many primary care physicians, PAs, and ARNPs use medical assistants to extend their services and increase their ability to see more patients. Medical assistants perform tasks such as drawing blood, taking vital signs, and starting the history, but have little-to-no education in patient examination or diagnosis, nor in providing the actual direction of care. Even though using medical assistants enables the physician to see more patients in a given day, the medical assistant's presence does not reverse the overall undertreatment or delayed treatment for common conditions. Many of the diseases on the rise in our country are related to cardiovascular health, such as diabetes, high cholesterol, high blood pressure, and heart disease. Cognitive disease is dramatically on the rise, also, as noted by statistics from the Alzheimer's Association.⁶⁶ Many, if not all, of these diseases can be positively impacted by exercise and diet. Providing handouts does not constitute proficient, effective education and treatment standards, although this is most commonly included in usual care in a primary care office visit without a physical therapist.

What is needed is a specialist in exercise and movement, specifically a primary care physical therapist who can identify and interpret the effect of contributing factors such as vital signs, diet, health risk factors, and home and work environments. Including a physical therapist on the primary care team to address movement system-related conditions early in care positively influences disease management and prevention. This model of care has been implemented and demonstrated to be effective in the US Army, Kaiser, US Department of Veterans Affairs, and in many other countries. A physical therapist with the appropriate training can provide a broad health screening annually and then track the patient's health status over time.

Summary. Through entry-level doctor of physical therapy education, all physical therapists are educated, to a degree, across the practice areas of pediatrics, geriatrics, pelvic health, oncology, home health, cardiovascular and pulmonary, and other areas. To provide competent and quality care in a primary care environment the physical therapist's knowledge base and skill set must be deepened across all of these practice areas. This professional development is best accomplished by the creation of primary care residency programs and recognition by the ABPTS clinical specialization process. Recognition of physical therapists who have completed the rigorous primary care clinical practice and training will help position physical therapists to become valued primary care team members.

CRITERIA #3: Specialized Knowledge

- 1) Describe in detail the specialized knowledge of physical therapist practice required for the proposed specialty area. Petitioners should make sure they are describing the specialized knowledge of a Specialist rather than an experienced non-specialist.**

The specialized knowledge of primary care physical therapist practice requires comprehensive declarative and procedural expertise for practice. This requires critical development of advanced clinical competence and in-depth knowledge across the body systems, across multiple specialty areas, and across the lifespan. The primary care specialist has a deeper depth of knowledge across practice areas than that of an experienced non-specialist. They have a broad advanced knowledge base across all practice areas as compared to an orthopedics or neurologic specialist for example who might have a narrow and deeper depth of knowledge in their respective specialty practice area.

The primary care physical therapist must demonstrate advanced skill and efficiency in medical screening, disease screening (e.g. identifying risk factors, and assisting in management of non-communicable disease through lifestyle education and exercise), as well as psychosocial screening (complex pain behaviors, social determinants of health and associated impact, recognition and referral for psychological health conditions); and demonstrate advanced ability to effectively and safely coordinate care. This includes special attention to and ability to rapidly screen and refer for conditions requiring further medical work-up (e.g. diabetes, cardiovascular disease, cancer, fracture, psychological health conditions including depression and suicidal ideation). The primary care specialist demonstrates advanced knowledge in interpreting and integrating results of imaging and laboratory studies into patient management.

The primary care specialist demonstrates advanced application of these sciences in providing efficient and collaborative patient care across the continuum and in various healthcare settings. The primary care specialist demonstrates system-based practice with advanced awareness of, and responsibility to, population health, and systems of health care. This advanced knowledge allows the specialist to optimally promote health, prevent disease, and promote efficient use of system resources in providing patient care.

The primary care specialist is capable of leading a team of health professionals in the management of the patient. This includes guiding team collaboration in disease management and prevention and promoting health and wellness through movement and education. The primary care specialist has advanced knowledge and ability to incorporate principles of population health, epidemiology, and chronic disease management to promote lifespan care across the continuum. A specialized knowledge that is unique to this specialist is in practicing through sustained patient partnerships

outside of an episodic model. Whereas other physical therapists (non-specialists, or PTs in other areas of specialty) often practice in an episodic model of care where there is a clear start (injury or condition onset) and end point (discharge).

2) Relate in detail how this advanced knowledge has its base in biological, physical, behavioral, and clinical sciences. In addition to providing the required narrative, the petitioner must submit the required table/matrix.

The advanced knowledge required for this area of specialization will have as its base in the biological, physical, behavioral, and clinical sciences. Practice in this specialty area is to be regarded independently of the managerial, procedural, or technical services needed to support that practice and of the environment in which the specialty practice occurs.

The foundational science necessary for a primary care specialist is rooted in biological and physical science with advanced knowledge across multiple organs and body systems throughout the lifespan. It is imperative for the primary care physical therapist to understand risk factors for chronic disease, the implications of system impairments across a diverse population, and how to effectively integrate this knowledge in the care coordination of the patient across the lifespan. As one condition may affect multiple systems and predispose a patient to associated secondary conditions, the primary care specialist must have a working knowledge of conditions that span the continuum of this diverse population of patients. An example of this is the primary care physical therapist who has a patient report a history of chronic renal disease and understands this is likely secondary to systemic atherosclerosis in which case the patient likely also has hypertension, systemic vascular insufficiency, and is at an elevated risk for cardiac events. The therapist would more closely monitor vitals to ensure they are safely incorporating aerobic exercise and dietary optimization into the care plan. The primary care physical therapist can holistically approach movement assessment and management with advanced consideration of multi-system impact (neurologic, musculoskeletal, cardiopulmonary, gastrointestinal, genitourinary, immunologic, psychiatric/behavioral involvement). They demonstrate advanced knowledge of chronic conditions across the lifespan as well as general health promotion/wellness principles in the application of exercise physiology and exercise prescription.

Advanced knowledge and application of behavioral science principles is critical for a primary care physical therapist specialist. To effectively manage a diverse population across the lifespan and continuum of care, the primary care physical therapist must integrate knowledge of behavior change theory (e.g., motivational interviewing), biopsychosocial factors (e.g., culturally competent care, trauma informed care, pain, and fear avoidance behaviors), and the impact of social determinants of health on wellness and disease. They must have advanced knowledge of and ability to educate and coach patients regarding the impact of health behaviors on disease prevention and wellness

across the lifespan (e.g., sleep behavior, nutrition, smoking/alcohol use, physical activity, healthy relationships, stress management). Additionally, they must also have an ability to screen these aforementioned areas to determine when a referral to another provider (e.g., registered dietician for nutrition management) is most appropriate. As a primary care provider, advanced knowledge and skill is required in the recognition and referral for psychological health conditions including but not limited to consistent depression and suicide screening/prevention.

The primary care physical therapist holds a unique set of knowledge and skill based in clinical sciences that facilitates effective management of a diverse population across the lifespan. Primary care specialists must demonstrate advanced knowledge of appropriateness criteria for ordering imaging studies, laboratory tests, and other diagnostic tests (e.g., EKG), as well as advanced ability to integrate results and make appropriate recommendations and referrals in a collaborative model of patient management. The primary care specialist has advanced understanding and ability to apply principles of pharmacokinetics and pharmacodynamics and how this impacts management of patients with chronic disease across the lifespan. Additionally, they have advanced knowledge in population health combined with ability to recognize hallmark signs of chronic disease and efficiently make appropriate referrals within the healthcare team. Identifying and triaging these elements facilitates efficient and effective care in coordinating with the other appropriate team members. For example, a patient presenting with a musculoskeletal disorder may include genetic, morphologic, biomechanical, and psychosocial aspects of the condition that require recognition, referral, and integrated treatment planning. Another example would be the patient with a chronic condition that falls and sustains a proximal humerus fracture and now needs a splint. The primary care specialist may be able to review the laboratory values to determine albumin levels to consider nutritional status, review the platelet levels to consider the potential for bleeding, perform an integumentary screen, and consult with other medical care providers before providing a splint that does not cause integumentary shear to prevent additional complications. The physical therapist without a primary care specialty may not have the advanced knowledge across body systems and clinical sciences (e.g., interpretation and application of laboratory values) to take a comprehensive multi-system management approach to this patient.

Unique to a primary care specialist, expert judgment across body systems is applied with patients ranging from very young to aging years and across healthcare settings (e.g., hospital-based facilities, outpatient clinics, home care, emergency department, rural areas, prison or other underserved settings and populations). A primary care physical therapist consistently applies a holistic clinical management approach and does not hone in immediately on conditions specific to one area of specialty as they are versed in advanced skill sets across the existing ABPTS specialty area of practices. For example, a patient presents to primary care with worsening chronic low back pain, prediabetes, and obesity with new onset tingling in both lower extremities. Systems review identifies elevated glucose levels, hypertension, and positive responses to depression screening.

The primary care specialist in gathering a thorough history identifies food and housing insecurities driving excessive carbohydrate intake and poor irregular sleep patterns. The primary care specialist conducts an appropriate physical examination and contributes these findings in collaboration with the medical provider, coordinates with social services and the mental health team. Prescribing physical activity and movement must take into consideration the inflammatory state, response of blood glucose levels to activity, and the emotional state the patient is in. Because of their advanced foundational, behavioral, and clinical science expertise, primary care specialists can quickly discern clinical presentations allowing for most efficient immediate physical therapy care or conference with primary care physician or other specialist.

<p>Foundation Sciences (Biological / Physical)</p>	<p>Human Anatomy & Physiology</p> <ul style="list-style-type: none"> ● Cardiovascular & Pulmonary ● Musculoskeletal ● Genitourinary ● Integumentary ● Lymphatic ● Immunologic ● Neurologic ● Gastrointestinal ● Vestibular ● Endocrine <p>Movement Sciences</p> <ul style="list-style-type: none"> ● Kinesiology/clinical biomechanics ● Kinematic and kinetic analysis of functional movements, postural control, and gait ● Ergonomics ● Locomotion ● Motor control and learning ● Effects of movement dysfunctions on multiple body systems, including immediate and long-term ● Interrelationship among social, cognitive, and movement systems <p>Exercise Physiology</p> <ul style="list-style-type: none"> ● Consideration for health conditions in exercise prescription ● Adaptation of exercise interventions for safety and general health/wellness <p>Human Growth & Development Across the Lifespan</p> <ul style="list-style-type: none"> ● Developmental biomechanics and lifespan changes ● Physiology of aging ● Muscle performance development and changes with aging ● Mental function and changes with aging (e.g., screening for dementia)
<p>Behavioral Sciences</p>	<p>Biopsychosocial Model</p>

	<ul style="list-style-type: none">● Role of biopsychosocial model in relation to primary care practice (e.g., inter-professional management strategies, exam and management strategies that address psychosocial and personal factors)● Relationship of pain to disability● Influence of the primary care physical therapist's behavior on the patient's behavior and vice versa● Fear avoidance behaviors and other negative coping strategies related to pain and loss of function● Pain neuroscience education and other patient-centered behavioral pain approaches● Appropriate referrals to other pain management healthcare providers <p>Communication Theory</p> <ul style="list-style-type: none">● Communication and nonverbal language to meet the needs of patient/client● Multidisciplinary medical team communication in the collaborative management and delivery of primary care services <p>Psychology/Psychiatry</p> <ul style="list-style-type: none">● Common psychiatric symptoms, syndromes, and classifications● Effect of psychiatric disease and treatment on cognition, learning, and function● Recognition of and referral for psychological health conditions● Suicide Screening and Prevention● Psychosocial issues with aging <p>Occupational health</p> <ul style="list-style-type: none">● Recognition of occupational and work-related diseases and injuries● Support return-to-work, preserve, and restore working capacity <p>Health Promotion and Disease Prevention</p> <ul style="list-style-type: none">● Behavior change, stages of change, and readiness for change● Theories and practice of behavior change for clinical practice (e.g., Cognitive Behavior Therapy, Acceptance Commitment Therapy, Motivational Interviewing)● Impact of health behaviors on general health, disease risk, and prognosis for specific conditions across the lifespan● Principles of prevention and wellness● Sleep Science● Exercise for wellness recommendations (e.g., Health and Human Services, American College of Sports Medicine) on quantity, quality, and mode
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	<ul style="list-style-type: none"> ● Recommendations for nutritional needs across the lifespan (e.g., understanding professional organizations and government agencies guidelines and common dietary plans) ● Nutrition impact on chronic disease <p>Sociology/cultural competence</p> <ul style="list-style-type: none"> ● Cultural competence and sensitivity <p>Teaching and learning theory (e.g., learning styles, teaching methods, assessment of learning)</p>
Clinical Sciences	<p>Pathology</p> <ul style="list-style-type: none"> ● Immunology ● Pathokinesiology ● Signs and symptoms of disease/injury ● Disease/Injury process and progression ● Tissue inflammation, healing, response to exercise, and repair ● Complications and considerations specific to bariatric medicine and obesity <p>Pain Science</p> <ul style="list-style-type: none"> ● Central nervous system pain physiology ● Peripheral nociceptive pain physiology ● Peripheral neuropathic pain physiology ● Output mechanisms and expressions (e.g., Immune, endocrine, sympathetic, behavioral) ● Social and psychological impacts related to pain <p>Emergency/Trauma Medicine</p> <ul style="list-style-type: none"> ● Triage of acute neurologic and musculoskeletal conditions presenting to emergency/trauma departments ● Early identification of yellow/red flags ● Falls risk and safety assessments (including assessment and provision of assistive devices/equipment) ● Educational subject matter expert for acute neurologic and musculoskeletal conditions ● Referral for further intervention (e.g., including referral to other specialty care, medical work-up, imaging, social work, further PT services as necessary) ● Discharge planning <p>Medical and Surgical Considerations</p> <ul style="list-style-type: none"> ● Medical Screening ● Imaging Studies <ul style="list-style-type: none"> ○ Appropriateness criteria for ordering imaging ○ Integrating results with clinical examination data ○ Applying results in referral/consultation management ● Laboratory Science

	<ul style="list-style-type: none">○ Screening of lab values○ Integrating results with clinical examination data● Diagnostic tests and measures (e.g., EKG, electrophysiological exams)● Pharmacology<ul style="list-style-type: none">○ Pharmacokinetics and pharmacodynamics○ Pharmacological treatment of co-morbidities and common conditions○ Drug interaction and polypharmacy○ Evidence and education in regard to supplements● Nonsurgical medical interventions (e.g., steroid injections, nerve ablations, medial branch blocks) and implications for Primary Care Physical Therapy● Surgical and invasive interventions (e.g., laparoscopic arthroscopic procedures, joint arthroplasties, cardiac and vascular procedures) and implications for Primary Care Physical Therapy <p>Population Health & Epidemiology</p> <ul style="list-style-type: none">● Epidemiology of chronic disease (e.g., implications for lifespan management, impacts on population health)● Recognition of hallmark signs for chronic disease process and ability to make appropriate referral/consultations <p>Practice Considerations</p> <ul style="list-style-type: none">● Systems-Based Practice (e.g., actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value)● Principles of physical therapy evaluation and treatment of patients across the lifespan with musculoskeletal, neuromuscular, cardiovascular, pulmonary, integumentary, or cognitive impairments● Provision of advanced care across the lifespan for patients who self-refer or are referred to physical therapy● Models of differential diagnosis and clinical reasoning such as hypothesis-oriented algorithm for clinicians (HOAC) model or the prospect theory● Collaboration and coordination throughout the continuum of care
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3) Discuss in detail how this specialized knowledge differs from the knowledge base required of a recent graduate from a professional physical therapy program. In addition to providing the required narrative, petitioner must submit the required table/matrix.

In addition to the following narrative – please see attached Attachment A: Primary Care Specialized Knowledge Matrix (*Sheet 1: Primary Care vs Entry Level*).

Primary care physical therapists (PCPTs) provide comprehensive wellness, triage, diagnostic, intervention, and management services within the primary care pathways for individuals with physical, functional, and wellness needs. These services encompass the roles and responsibilities illustrated in the Guide to Physical Therapist Practice's Patient/Client Management Model and described elsewhere throughout the guide including but not limited to:

- Preventative services
- Wellness, fitness, and health promotion
- Management of disease and disability
- Administration/ordering of tests (e.g. imaging, blood lab tests, and electrodiagnostic testing)
- Consultant
- Educator

The PCPT demonstrates competence and knowledge across body systems, across multiple specialty areas, and across the lifespan in order to provide effective triage management, focused intervention, and care navigation. In collaboration with other members of the primary care team, the PCPT is responsible for the on-going evaluation, management, and care navigation of patients with or at risk for developing functional limitations as a result of disease, injury, or lifestyle behaviors. The PCPT holds key roles in both population and individual patient health. From a population health perspective, the PCPT is responsible for identifying and addressing local population health trends and risk factors affecting health, such as transportation, employment, food security, education, violence, or drug exposure, etc. The PCPT may hold a role in optimizing community health, such as developing or improving safe places for community members to walk/exercise or offering individual and group exercise and weight management education opportunities for individuals with noncommunicable diseases such as diabetes and hypertension. From an individual patient perspective, the PCPT is skilled in the evaluation and interdisciplinary management of a wide variety of case presentations. Upon patient evaluation, the PCPT is routinely responsible for 1) determining which patients are appropriate for independent self-care management vs. traditional rehabilitation management vs. other specialty care, 2) determining the need for additional diagnostic workup (imaging, labs, electrodiagnostics, etc.) and 3) identifying individual medical, psychological, and socioeconomic risk factors and coordinating care appropriately.

Depending upon the patient/clients' primary needs, the PCPT may be the initial point of contact (direct triage) or they may serve as an in-house consultant, receiving a 'warm hand-off' from primary care providers when appropriate cases arise (Figures 1 and 2). Ideally, the PCPT would be co-located or in close proximity to other members of the primary care team, however, offering virtual access to patients and other primary care team members is a sound solution where this is not possible. In some cases (e.g. VA model) the PCPT may be physically embedded within a primary care team, while in other cases (e.g. rural settings) the PCPT may work more independently with virtual collaboration and a strong referral network of interdisciplinary providers and other PT specialists. The primary care team (and/or providers for networking and referral) may include physicians, nurse practitioners, physician assistants, nurses, care managers, dietitians, pharmacists, social workers, physical and/or occupational therapists.

Figure 1: The Warm-Handoff Pathway⁶⁷

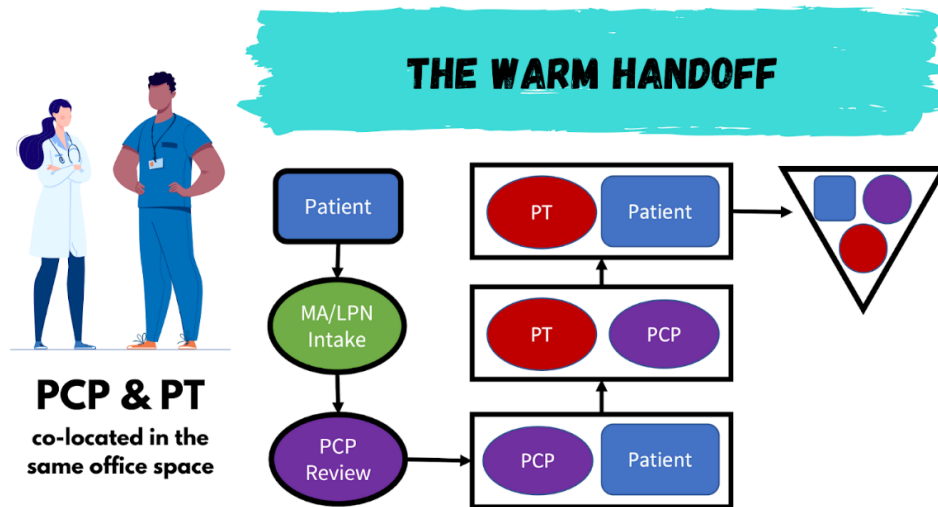
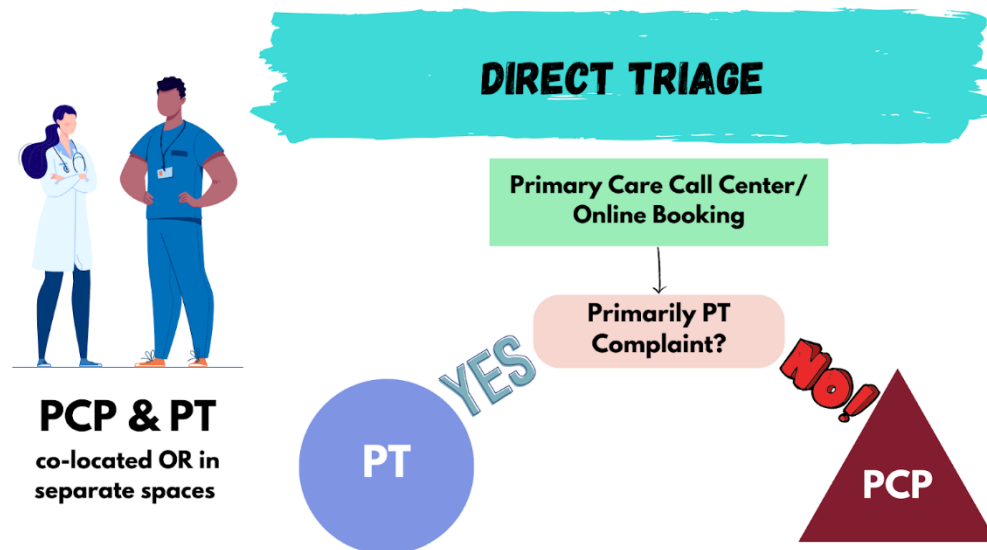


Figure 2: The Direct Triage Pathway⁶⁷



The PCPT must be able to adapt to the needs of the patient, community, and setting in which they work. In some primary care settings, the PCPT may provide ongoing treatment and management services. In other primary care models, the PCPT's activities may focus on patient triage, subsequent care navigation, and treatment initiation with referrals to other rehabilitation generalists or specialists when the needs are complex, outside the PCPT's individual skill set, or the frequency/duration of visits required exceed the capacity of the highly evaluative clinic setting. The set-up and workflow of the operation is flexible and unique to the clinical environment and structure.

The provision of primary care by physical therapists has been defined in the *Guide to Physical Therapist Practice* as: "the provision of integrated, accessible health care by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients and practicing within the context of family and community." While a traditional outpatient or generalist patient/PT relationship is often linear and finite (e.g. starting with evaluation and ending at a finite 'discharge'), the PCPT ideally functions in sustained patient relationships across the lifespan with an ongoing 'revolving-door' model, where patients can come in and out of care on an as-needed basis, with ongoing check-ins for disease management or prevention and wellness visits. In the ever-changing health care landscape, the broad scope of patient types and health care needs in the various communities requires a skill set that extends far beyond basic entry-level competence.

According to the Federation of State Boards of Physical Therapy (FSBPT), the Physical Therapist Licensure Examination is designed to assess basic entry-level competence. By default, physical therapists who do not pursue clinical specialization are often considered to be "generalist" practitioners. This designation does not imply the ability to provide high-quality care to all age groups, including patients with complex and complicated medical histories. Specialization is the process by which a physical therapist builds upon the broad and basic (as defined by FSBPT) base provided by professional education programs, allowing one to practice with a greater depth of knowledge and skills related to a particular area of practice. For example, while the generalist has the capability to competently treat a proportion of patients with orthopedic conditions, the orthopedic clinical specialist has been identified, through a rigorous process, to have increased capabilities to successfully manage more complex and complicated orthopedic patients. Similarly, the generalist has the capability to competently treat a portion of patients of most age groups with varied conditions and minor-to-moderately complex medical histories. The primary care clinical specialist would have the ability to provide specialized care to patients of all age groups, with varied and multiple medical conditions and with moderate-to-severe complex medical histories. The entry level clinician demonstrates a knowledge base that is 1 foot deep and 3 miles wide (Figure 3), whereas a primary care clinical specialist develops a much deeper knowledge base that is 3 feet deep and 3 miles wide (Figure 4).

Figure 3: The Entry-Level Physical Therapist Scope⁶⁷

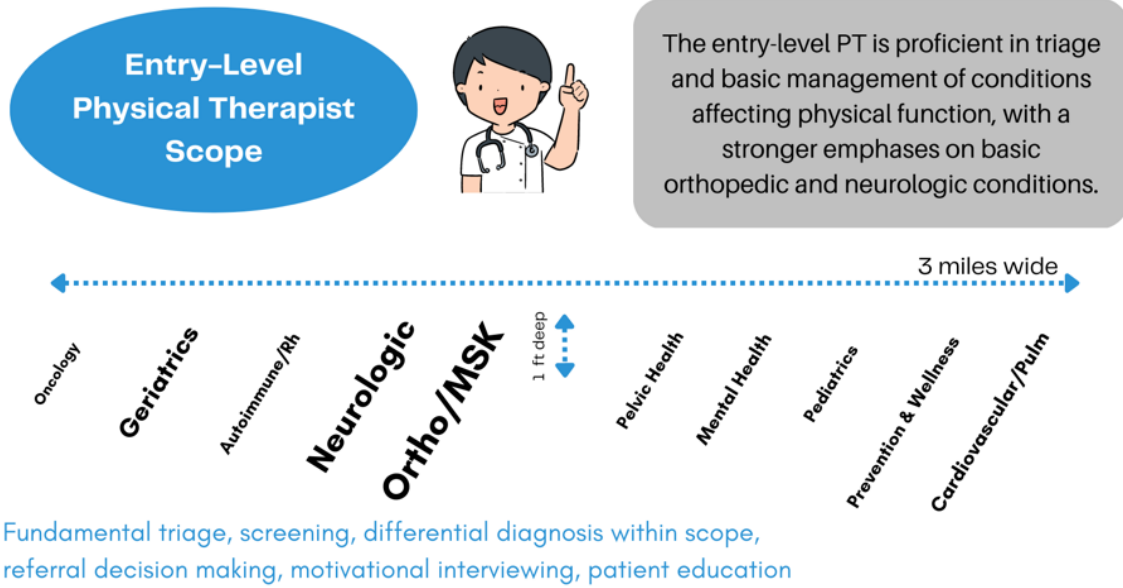
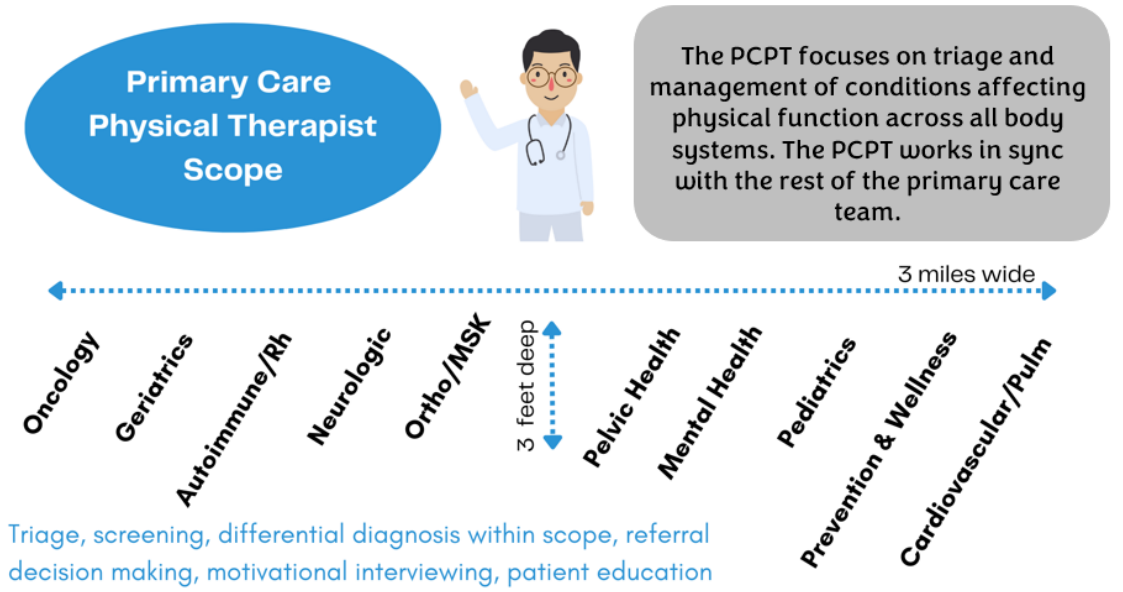


Figure 4: The Primary Care Physical Therapist Scope⁶⁷



The PCPT specialist demonstrates expert knowledge in triage and management (including focused interventions) of conditions affecting physical function across all body systems, as well as advanced awareness of, and responsibility to, population health and systems of health care. The following table describes that advanced knowledge base of a primary care clinical specialist as compared to entry level clinicians across foundational, behavioral, and clinical sciences:

<p>Foundational Sciences</p>	<p>A recent graduate identifies anatomy, basic physiological process, and movement patterns in developing clinical hypotheses. A primary care specialist has greater depth of understanding regarding physiological processes and effectively and rapidly applies them in real time. The primary care therapist applies the foundation sciences to prevent or manage movement disorders across the lifespan including moderate to complex case management. In this role, the primary care therapist is often guiding the care team in the collaborative management of this patient across the continuum of care. While one would expect entry level clinicians to have baseline differential diagnosis knowledge, the primary care specialist demonstrates increased efficiency, accuracy, and independence in case management across the lifespan and from simple to complex cases.</p>
<p>Behavioral Sciences</p>	<p>At the specialist level, the primary care therapist consistently and efficiently recognizes behavioral health factors and integrates findings into patient communication and plan of care. Entry level physical therapists are exposed to basic behavioral science principles (e.g. pain neuroscience education, motivational interviewing, cognitive behavioral therapy, etc.). However, the primary care specialist is able to apply advanced knowledge and skill to effectively weave these techniques throughout care management to improve patient understanding and clinical outcomes. The primary care specialist utilizes advanced knowledge to collaborate with and guide with the work of the multidisciplinary care team to ensure a consistent and collaborative approach that optimizes care. The specialist is able to rapidly identify and appropriately refer for definitive care related to behavioral health. The primary care specialist promotes and provides holistic health care by providing comprehensive wellness coaching (e.g. sleep, diet, physical activity, mindfulness, chronic disease management, etc.) across the lifespan through sustained patient partnerships and outside of an episodic model of care.</p>
<p>Clinical Sciences</p>	<p>While an entry level physical therapist will have basic didactic knowledge regarding disease screening and diagnostic studies, the primary care specialist possesses advanced competence and skill to efficiently recognize the need for referral or additional diagnostics and to interpret and effectively integrate results into the overall management of moderate to complex cases. The specialist will appreciate the relevance and impact on overall prognosis when taking</p>

	<p>patient pathology into consideration. The specialist has advanced knowledge and recognition of the impact of pharmacodynamics and polypharmacy on overall client management; they routinely incorporate education on these impacts and empower the client with the knowledge for self-advocacy. Additionally, the primary care specialist educates and advocates across health care teams to reduce overutilization of pharmacology, imaging, and other diagnostic studies. They have the ability to apply advanced pattern recognition to facilitate accurate and efficient disease screening and referrals. Additionally, they have advanced knowledge in the area of population health combined with ability to recognize hallmark signs of chronic disease and efficiently make appropriate referrals within the healthcare team. Identifying and triaging these elements facilitates efficient and effective care in coordinating with the other appropriate team members.</p>
<p>Clinical Inquiry Principles & Methods</p>	<p>Both the entry level clinicians and specialists will demonstrate ability to critically appraise research and apply findings to practice. The difference with the clinician practicing at the primary care specialist level is in the ability to integrate clinical expertise with the available evidence facilitating expert application to client management.</p>

Per NPTE Content Outline released in January 2018, an entry-level physical therapist should know how one condition may affect multiple body systems. A primary care physical therapist has mastered this and demonstrates advanced skill and application in real time, discerning if a person has multiple interacting or competing conditions across the bodily systems and is able to integrate this into a holistic comprehensive patient management model. While one would expect entry level clinicians to have baseline differential diagnosis knowledge, the primary care specialist demonstrates increased efficiency, accuracy, and independence in case management across the lifespan and from simple to complex cases. An entry level clinician may require mentorship or guidance in moderate to complex cases, whereas the primary care therapist is often guiding the care team in the collaborative management of this patient across the continuum of care regardless of case complexity.

The specialist level of knowledge and skill is based on continuous learning, self-reflection, and ongoing professional development. The ABPTS board-certified clinical specialization process is ideal to identify and recognize physical therapists with the appropriate depth of knowledge and skills necessary to help meet society's current and future health care needs. As with other areas of specialty practice, though not required, it may be beneficial to train a physical therapist who has demonstrated basic entry-level competence to assume the critical role of a primary care physical therapist through the completion of an ABPTRFE-accredited primary care residency program in preparation to successfully sit for the ABPTS board-certification exam.

Reference:

Katie O'Bright, Seth Peterson, Physical Therapists in Primary Care in the United States: An Overview of Current Practice Models and Implementation Strategies, *Physical Therapy*, 2024,; pzae123, <https://doi.org/10.1093/ptj/pzae123>

- 4) Discuss in detail how this advanced knowledge differs from the knowledge base required for those specialty areas already recognized by ABPTS. Please refer to the currently approved ABPTS Descriptions of Specialty Practice. In addition to providing the required narrative, petitions must submit comparison assessment within a table/matrix.

In addition to the following narrative – please see attached Attachment A: Primary Care Specialized Knowledge Matrix (*Sheet 2: Primary Care vs. Other Specialties*)

Existing areas of ABPTS specialty require a greater depth of knowledge in their respective area of specialty practice, whereas the primary care specialist must have greater breadth of clinical knowledge across the body systems (e.g., cardiopulmonary, neuromusculoskeletal, integumentary, lymphatic, immunology, neurologic, gastrointestinal, genitourinary, vestibular, endocrine), across multiple specialty areas, and across the lifespan. Per the primary care physical therapy practice analysis survey, primary care specialists treat patients of all ages (86% adults, 9% adolescents, 5% children 0-12 years old) with an emphasis on triage management and care navigation for patients/clients of all ages presenting to entry point primary care settings with a range of health related conditions (e.g., this may include initiation of treatment with referrals to other health professionals or other specialists including other PT specialists for specialized management). The PCPT specialist scope has greater breadth which is 3 feet deep and 3 miles wide (Figure 5), which is in contrast to the ‘focused’ specialty clinician where knowledge is 3 feet wide and 3 miles deep (Figure 6).

Figure 5: The Primary Care Physical Therapist Scope⁶⁷

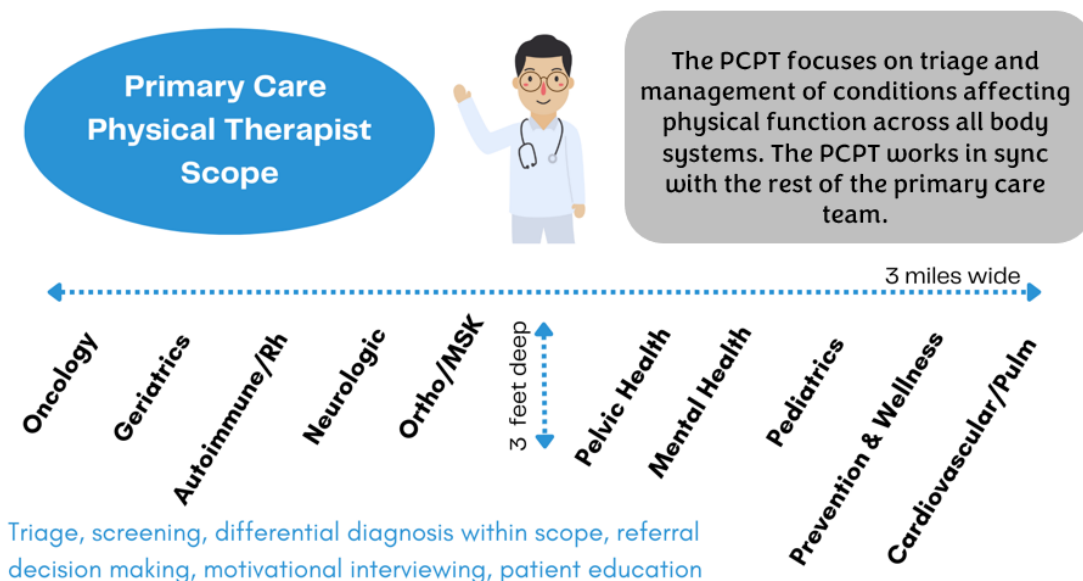
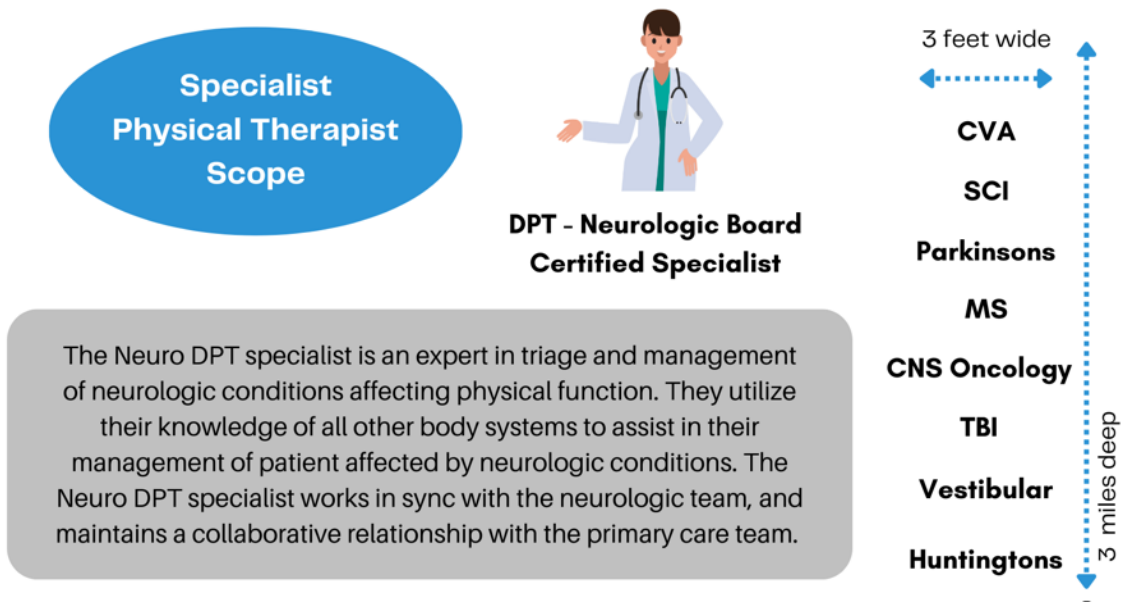


Figure 6: The 'Focused' Specialist Physical Therapist Scope⁶⁷ (E.g., Neurologic Specialist)



The PCPT has *advanced skill and efficiency* in the typical functions as a first-contact provider such as:

- Wellness and prevention assessment and patient education
- Medical and psychosocial screening and triage
- Assessing social determinants of health and lifestyle factors and associated impact on prognosis and outcomes
- Referring for appropriate diagnostic studies such as imaging, lab values, and other relevant diagnostic tests
- Incorporating pharmacologic impact on systems and physical function
- Maintaining broad multi-systems competency with an emphasis on screening/triage capability, contributing to the overall management, and ability to initiate focused intervention and appropriately refer to other disciplines or PT specialists
- Providing effective and safe care navigation, which is defined as the process by which a clinician coordinates and manages 'next steps' of care, such as referrals for diagnostic studies or to other specialists, addressing community/sport/work related disability needs, and durable medical equipment prescription; care navigation is done in close collaboration and communication with other members of the primary care team.

A PCPT provides care to patients across the lifespan as well as the continuum of care including primary prevention, health promotion and wellness, sick care, hospice and/ or palliative care. The PCPT serves as a care navigator for physical and functional complaints within a primary care setting; whereas in other areas of specialty practice, the physician is often overseeing the care in a top down approach. For example, the PCPT

evaluating a pediatric patient in a rural setting, often is the professional evaluating a patient for tone to determine function. A pediatric patient with high tone or spasticity, may need orthotics prior to developing the skill of ambulation to maintain range of motion so that the pediatric patient is prepared to walk when it is time. It is often the physical therapist that is recognizing what is needed for the pediatric patient, and the PCPT becomes the care navigator to make sure whether the pediatric patient has low tone or high tone, what is needed. Another example specific to neuro practice is assessment of the patient with a vestibular disorder. The standard medical model top down approach is to provide the patient with vestibular suppressants such as Meclizine to reduce the symptoms of a vestibular disorder. In many cases, however, this delays recovery of the patient. In conditions such as vestibular neuritis, the patient really needs to continue to move their head in adaptation or habituation exercises. The PCPT model of care in which the therapist is the care navigator for this patient, provides timely and effective treatment that matches the patient's condition. Another example specific to oncology, is the patient who is post mastectomy with right upper extremity stage 2 or moderate lymphedema. The PCPT working in a setting where an oncology certified physical therapist is not present, would function as the care navigator for this patient and initiate compression dressings and exercise immediately that are specific to the patient, and make referrals to other rehabilitation specialists as indicated. In contrast to this, a top down physician approach may result in a delay of care that potentially results in the patient moving from stage 2 lymphedema to stage 3 lymphedema. The PCPT role as care navigator for physical and functional complaints in a primary care setting is a common practice in the VA healthcare system where, embedded in the Patient Aligned Care Team (PACT), the primary care physical therapist is trusted to make decisions on the best care plan, order imaging, and place appropriate referrals independent of a primary care provider. Thus allowing the patient to make an informed decision with their physical therapist, as part of their care plan, and with the knowledge and education provided regarding the resources available to them. In contrast, in many other areas of specialty practice, the physician is at the center of and primarily responsible for care navigation. Additionally, while the PT/patient relationship in other areas of specialty practice is often linear and finite (e.g. starting with evaluation and ending at a finite 'discharge'), the PCPT ideally functions in sustained patient relationships with an ongoing 'revolving-door' model, where patients can come in and out of care on an as-needed basis, with ongoing check-ins for disease management or prevention and wellness visits.

As a front-line provider, the PCPT possesses expert knowledge in advanced pattern recognition to efficiently recognize the need for additional diagnostic testing, and also identify the moderate-to-complex patients who require the expertise of another specialist, from outside or within the physical therapy profession. For example, a patient with a complex neurological condition may need a neurologic clinical specialist physical therapist whose deeper level of knowledge and experiences are required to meet the patient's needs.

Many existing areas of ABPTS specialists also hold advanced knowledge in communication theory, teaching and learning theory, pain science and other behavioral pain approaches, as well as principles of wellness and prevention. A difference is that the primary care clinical specialist is screening for and guiding the management of these psychosocial and psychiatric conditions through early recognition and facilitation of appropriate referrals within a team-based primary care model. Existing areas of specialty and the primary care specialist both demonstrate advanced knowledge in the area of

health promotion and disease prevention; though the primary care specialist often holds a significant responsibility to comprehensively integrate these principles across the lifespan through a continuous care model (e.g., through wellness visits vs. an episodic model of care that many existing areas of specialty practice under). The primary care specialist also has advanced knowledge of population health specific to the impact of social determinants of health on disease risk, prevention, and management.

The primary care clinical specialist develops research questions, appraises evidence, and applies research findings applicable to primary care physical therapy and across other specialty areas of practice with an emphasis on examination and triage, differential diagnosis, referral management and appropriateness, and health promotion/disease prevention concepts. The PCPT must apply an extensive breadth of evidence across multiple practice areas, whereas PTs in existing areas of specialty must apply a greater depth of evidence in their respective area of practice.

The broad scope of advanced knowledge across existing specialty areas, body systems, regardless of age or gender is unique to the primary care specialist. We are not implying that a primary care specialist must practice at the level of a specialist in all existing areas of specialty, but similarly to primary care physicians, the primary care physical therapist specialist has the capability to provide advanced comprehensive quality care to a majority of patients presenting with simple to complex physical and functional needs across the lifespan in a sustained model of care.

The following tables provide detailed differentiation between the primary care clinical specialist and specialists in existing areas of specialty practice:

Cardiovascular & Pulmonary:

<p>Foundational Sciences</p>	<p>The cardiovascular and pulmonary clinical specialist demonstrates advanced foundational science knowledge with the greatest depth of knowledge in the areas of the cardiovascular (central and peripheral vascular) and pulmonary systems, whereas the primary care specialist demonstrates a broad scope of foundational science knowledge across body systems with the greatest emphasis in triage management and care navigation.</p>
<p>Behavioral Sciences</p>	<p>Both the cardiovascular & pulmonary and primary care clinical specialist holds advanced knowledge in areas of psychology, sociology/cultural competence, teaching and learning theory. While there are many similarities between the areas of specialty practice, the knowledge is conceptualized differently and the breadth of knowledge is focused on a particular patient population or setting. The cardiovascular & pulmonary specialist focuses on the patient/client population presenting with cardiovascular and/or pulmonary conditions and their related impairments, whereas the primary care specialist focuses on triage management care navigation for patients/clients presenting to a primary care setting with a range of health related conditions. A cardiovascular & pulmonary specialist may go into greater depth related to behavioral health/pain approaches specific to impairments related to cardiovascular and</p>

	<p>pulmonary conditions (e.g. anginal pain, pleuritic pain, claudication pain, or post-op incisional pain), whereas a primary care specialist applies behavioral health/pain approaches to patients/clients presenting to entry point primary care settings with a broad range of health conditions (e.g., pain science education for musculoskeletal/persistent pain conditions, diabetic neuropathic pain, etc.) with an emphasis in health promotion and disease prevention techniques in management and prevention of conditions.</p>
Clinical Sciences	<p>The cardiovascular and pulmonary clinical specialist demonstrates advanced clinical science knowledge in focused areas relevant to the cardiopulmonary systems as well as the impact of cardiopulmonary conditions on other body systems. The cardiovascular and pulmonary specialist has advanced clinical knowledge in medical management, tests and procedures with greatest depth specific to cardiovascular and pulmonary conditions. The primary care specialist holds advanced knowledge in medical tests and procedures pertinent to a broad scope of conditions across body systems with an emphasis in triage management and referral coordination across the continuum of care, however, they do not have the same depth of knowledge that other specialists hold in their respective areas (e.g., a cardiovascular and pulmonary clinical specialist would have much greater depth of knowledge related to cardiovascular and pulmonary conditions than a primary care specialist would).</p>
Critical Inquiry Principles	<p>The cardiovascular and pulmonary clinical specialist appraises and applies research findings with great depth related to cardiovascular and pulmonary physical therapy practice, whereas the primary care clinical specialist appraises evidence and applies research findings applicable to primary care physical therapy and across a wide breadth of other specialty areas of practice, with an emphasis on examination and triage, differential diagnosis, referral management and appropriateness, and health promotion/disease prevention concepts. The difference is the depth and emphasis on which each respective specialty places on each topic - cardiopulmonary specialists would go into greater depth regarding the cardiovascular and pulmonary systems, whereas the primary care specialist would place more emphasis on research related to multisystem screening and triage management.</p>

Clinical Electrophysiology:

Foundational Sciences	<p>The clinical electrophysiologic physical therapy specialty practice encompasses areas of practice using nerve conduction and electromyography to monitor, measure, or produce physiologic responses in the evaluation, treatment, and prevention of human dysfunction. Specialists in this area of a focused area of foundational science knowledge with emphasis on neuroscience and</p>
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	<p>neurophysiology to facilitate skill in planning and administering and assessing special electrodiagnostic and electrotherapeutic procedures. The clinical electrophysiologic specialist has extensive anatomy and physiologic knowledge focused on neuromusculoskeletal systems, whereas the primary care specialist must have broader anatomy knowledge across all systems (e.g., cardiopulmonary, neuromusculoskeletal, integumentary, lymphatic, immunology, neurologic, gastrointestinal, vestibular, endocrine).</p>
Behavioral Sciences	<p>The clinical electrophysiology specialist focuses more on biomedical sciences, whereas the primary care specialist has an increased focus additionally on applying behavioral science principles to the comprehensive management of patients presenting to entry point primary care settings with a broad range of health conditions.</p>
Clinical Sciences	<p>The clinical electrophysiology specialist has a deep and focused area of advanced knowledge in clinical sciences relative to neuromuscular anatomy/physiology and electrodiagnostic studies in the evaluation, treatment and prevention of human dysfunction most commonly related to the musculoskeletal and neuromuscular systems. Whereas the primary care specialist holds advanced knowledge pertinent to a broader scope of conditions across body systems and across existing areas of specialty.</p>
Critical Inquiry Principles	<p>The clinical electrophysiology clinical specialist appraises and applies research findings with great depth related to neuromuscular and clinical electrophysiology physical therapy practice, whereas the primary care clinical specialist appraises evidence and applies research findings applicable to primary care physical therapy and across a wide breadth of other specialty areas of practice; with an emphasis on examination and triage, differential diagnosis, referral management and appropriateness, and health promotion/disease prevention concepts.</p>

Geriatric:

Foundational Sciences	<p>Geriatric foundational science knowledge focuses specifically on the aging population, whereas the primary care specialist must maintain advanced foundational science knowledge across the lifespan.</p>
Behavioral Sciences	<p>The geriatric specialist demonstrates advanced knowledge in adult teaching and learning theory, whereas the primary care specialist must demonstrate advanced knowledge in teaching and learning theory across the lifespan. Both geriatric and primary care specialists hold advanced knowledge in areas of cultural competence and behavior change. The geriatric specialist holds a deeper scope of advanced knowledge in psychology and psychosocial factors pertinent to the aging population, whereas the primary care specialist holds</p>

	advanced knowledge in psychology and psychosocial factors across the lifespan.
Clinical Sciences	The geriatric clinical specialist holds advanced knowledge in exercise physiology, interpretation of special tests (including imaging/labs), movement science, pathokinesiology, pharmacology and prevention/wellness as it pertains to older adults, whereas the primary care clinical specialist has a broad scope of advanced knowledge in these areas as it pertains to populations across the lifespan.
Critical Inquiry Principles	The geriatric clinical specialist appraises and applies research findings with great depth related to geriatric physical therapy practice, whereas the primary care clinical specialist appraises evidence and applies research findings applicable to primary care physical therapy across the lifespan with an emphasis on examination and triage, differential diagnosis, referral management and appropriateness, and health promotion/disease prevention concepts.

Neurology:

Foundational Sciences	Neurologic physical therapy specialists' foundational science knowledge focuses specifically on neurologic populations (e.g. neuroanatomy, neurophysiology, neural growth and plasticity, neurotransmission, neural control, principles of motor control and motor learning). In contrast, the primary care physical therapy specialist foundational science knowledge spans all body systems and populations beyond the neurologic population.
Behavioral Sciences	The neurologic specialist demonstrates advanced behavioral science knowledge rooted in neuropsychology and cognitive processing. Both specialty areas have advanced knowledge in common psychiatric conditions, cultural competence, and learning theories. The primary care specialist also has advanced behavioral health knowledge in areas of health promotion/disease prevention and advanced knowledge and skill in guiding multidisciplinary care teams in matters related to behavioral health.
Clinical Sciences	The neurologic specialist demonstrates advanced clinical science knowledge in focused areas relevant to the neuromuscular system as well as neurologic condition impact on other body systems. The neurologic specialist has advanced clinical knowledge in medical management, tests and procedures specific to neurologic conditions; whereas the primary care specialist holds advanced knowledge in medical tests and procedures pertinent to a broad scope of conditions across body systems. The neurologic specialist holds advanced knowledge in medical tests and procedures for neurologic conditions, whereas the primary care specialist must have advanced knowledge in medical tests and procedures across specialties and for a broad scope of conditions.

Critical Inquiry Principles	The Neurologic Clinical Specialist appraises and applies research findings with great depth related to neurologic physical therapy practice, whereas the primary care clinical specialist appraises evidence and applies research findings applicable to primary care physical therapy and across a wide breadth of other specialty areas of practice; with an emphasis on examination and triage, differential diagnosis, referral management and appropriateness, and health promotion/disease prevention concepts.
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Oncology:

Foundational Sciences	The oncologic physical therapy specialty area includes the management of musculoskeletal, neuromuscular, integumentary, and cardiovascular and pulmonary rehabilitative needs of patients living with and beyond cancer and other chronic illnesses, including HIV. While both the oncologic and primary care clinical specialist must maintain a broad scope of foundational science across body systems, the difference is that the oncologic specialist has greater depth of knowledge in cancer biology/pathophysiology, cellular biology, and radiation physics as compared to the primary care specialist who emphasizes triage management and care navigation for patients/clients presenting to a primary care setting (e.g., this may include initiation of treatment with referrals to other health professionals or other specialists including other PT specialists for specialized management).
Behavioral Sciences	Both the oncologic and primary care clinical specialists hold advanced knowledge in teaching and learning theory. The oncologic clinical specialist holds a deeper scope of advanced knowledge in the areas of social psychology and communication theory as it relates to loss, grief, survivorship and end-of-life issues for patients and caregivers, whereas the primary care specialist holds advanced knowledge in social psychology and communication across a broad range of topics affecting patient care across specialties. Although both the oncologic and primary care specialist hold advanced knowledge in health promotion and disease prevention across the lifespan, the knowledge is conceptualized differently and the breadth of knowledge is focused on a particular patient population or setting. The oncologic specialist focuses on the oncologic population as a whole and the impairments that are elicited by the disease and its treatment across all types of patient populations, whereas the primary care specialists focuses on triage management and care navigation for patients/clients presenting to a primary care setting with a range of health related conditions.
Clinical Sciences	The oncologic clinical specialist holds a deep and focused area of advanced knowledge in clinical sciences relevant to cancer care (e.g. chemotherapy pharmacokinetics, radiation therapy tissue changes, exercise considerations in context of immunosuppression, taxonomy

	of cancer rehabilitation principles, cancer tumor staging, tumor pathology, surgical/medical/radiation oncology, laboratory tests specific to oncologic conditions). While both oncologic and primary care specialists hold advanced knowledge in clinical sciences across body systems, a difference is how the primary care specialists applies this knowledge with an emphasis on triage management and care navigation for patients/clients presenting to a primary care setting with a range of health related conditions.
Critical Inquiry Principles	The oncologic clinical specialist appraises and applies research findings with great depth related to oncology physical therapy practice. Both the oncologic and primary care clinical specialists appraise evidence across body systems, the difference is the depth and emphasis on which each respective specialty places on each topic. Oncologic specialists go into greater depth related to oncology practice, whereas the primary care specialist would place more emphasis on research related to multisystem screening and triage management.

Orthopedics:

Foundational Sciences	Orthopedic specialization refers to the prevention of disability and the physical rehabilitation of persons with disability resulting from dysfunction of the musculoskeletal system and its related neurovascular components. The practice concentrates both on actual and potential dysfunction of physical capacity and movement. The orthopedic clinical specialist uses advanced techniques and methods to assist the patient toward optimal function through corrective, adaptive, and prophylactic management of the neuromusculoskeletal system. In contrast, the primary care specialization practice has a broader scope spanning all existing areas of specialty practice (e.g. primary care specialist must have advanced knowledge in areas of neurologic, pelvic health, wound management, etc.). Orthopedic care is often episodic in nature and focused on actual or potential musculoskeletal dysfunction, whereas primary care specialty care shifts away from episodic care toward a more continuous model of care across the lifespan with emphasis and scope beyond musculoskeletal care including health promotion and chronic disease prevention/management.
Behavioral Sciences	Both orthopedic and primary care clinical specialists hold advanced knowledge in communication theory, teaching and learning theory, pain science and other behavioral pain approaches, as well as principles of wellness and prevention. A difference is that the primary care clinical specialist is screening for and guiding the management of these psychosocial and psychiatric conditions through early recognition and facilitation of appropriate referrals within a team based

	<p>model of care. Both orthopedic and primary care specialists demonstrate advanced knowledge in the area of health promotion and disease prevention; though the primary care specialist often holds a significant responsibility to comprehensively integrate these principles across the lifespan through a continuous care model (e.g. through wellness visits vs. an episodic model of care that many orthopedic clinical specialists practice under).</p>
Clinical Sciences	<p>Both orthopedic and primary care clinical specialists hold advanced knowledge in clinical sciences such as pathology, pain science, medical tests, pharmacology. The orthopedic specialist demonstrates a deeper but narrower scope of this knowledge relevant to orthopedic conditions and considerations; whereas the primary care specialist must have a broader scope of advanced knowledge in clinical sciences across existing specialty areas and across body systems and conditions.</p>
Critical Inquiry Principles	<p>Per the orthopedic DSP, the orthopedic clinical specialist appraises and applies research findings with great depth related to orthopedic physical therapy practice, whereas the primary care clinical specialist appraises evidence and applies research findings applicable to primary care physical therapy and across a wide breadth of other specialty areas of practice; with an emphasis on examination and triage, differential diagnosis, referral management and appropriateness, and health promotion/disease prevention concepts.</p>

Pediatrics:

Foundational Sciences	<p>Pediatric foundational science knowledge focuses specifically on children, whereas the primary care specialist must maintain advanced foundational science knowledge across the lifespan including geriatric care. Per the primary care physical therapy practice analysis survey, primary care specialists treat patients of all ages (86% adults, 9% adolescents, 5% children 0-12 years old). A difference is the setting and context in which the advanced knowledge is applied to populations. A primary care clinical specialist applies this knowledge with an emphasis on triage management and care navigation for patients/clients of all ages presenting to entry point primary care settings with a range of health related conditions (e.g., this may include initiation of treatment with referrals to other health professionals or other specialists including other PT specialists for specialized management).</p>
Behavioral Sciences	<p>Both pediatric and primary care clinical specialists hold advanced knowledge in areas of teaching and learning theory, social and psychological factors, pain science, population health and epidemiology. However, the primary care specialist must possess advanced knowledge in these areas across the lifespan whereas the</p>

	pediatric specialist knowledge is deeper in scope pertinent to the pediatric population.
Clinical Sciences	The pediatric clinical specialist holds advanced knowledge in exercise physiology, interpretation of special tests (including imaging/labs), movement science, pathokinesiology, pharmacology and prevention/wellness as it pertains to children, whereas the primary care clinical specialist has a broader scope of advanced knowledge in these areas as it pertains to populations across the lifespan. Another difference is the setting and context in which the advanced clinical science knowledge is applied to populations. The pediatric clinical specialist may provide specialized evaluation and treatment in various settings to include both inpatient (e.g. neonatal care in a NICU setting) and outpatient settings. The primary care specialist would perform pediatric evaluations and treatment specifically in point of entry primary care settings with an emphasis on triage management and care navigation.
Critical Inquiry Principles	The pediatric clinical specialist appraises and applies research findings with great depth related to pediatric physical therapy practice, whereas the primary care clinical specialist appraises evidence and applies research findings applicable to primary care physical therapy with great breadth across specialty areas and across the lifespan with an emphasis on examination and triage, differential diagnosis, referral management and appropriateness, and health promotion/disease prevention concepts.

Sports:

Foundational Sciences	While there are many similarities in the advanced knowledge of a sports and primary care physical therapy specialist, the sports physical therapy specialty area involves the physiological, psychological, pathological, and performance conditions specific to and in much greater depth related to the athlete population encompassing physically active individuals across the spectrum of age, race, ethnicity, illness or injury conditions, and levels of disability. Sports physical therapists provide pre-participation interventions and manage care through return to sport and beyond. Another difference is how the knowledge is conceptualized differently and the breadth of knowledge is focused on a particular patient population or setting. The sports specialist applies this specialized knowledge to the athlete population in the context of athletic participation and sports medicine, whereas the primary care specialists focuses on triage management and care navigation for patients/clients presenting to a primary care setting with a range of health related conditions.
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Behavioral Sciences	Both sports and primary care clinical specialists hold advanced knowledge in communication theory, teaching and learning theory, pain science and other behavioral pain approaches, as well as principles of wellness and prevention. Although there are many similarities, the difference is how the knowledge is conceptualized and applied to specific populations and settings. The sports clinical specialist applies this knowledge to the athlete population with overall patient management but also greater depth of application to specialized interventions, whereas the primary care specialist applies this knowledge to athletic and non-athletic populations presenting to primary care settings with an emphasis on triage management and referral coordination (e.g., this may include initiation of focused interventions with referrals to other health professions or PT specialists as indicated).
Clinical Sciences	Both sports and primary care clinical specialists hold advanced knowledge in clinical sciences such as pathology, pain science, medical tests, and pharmacology. A difference is the depth of which the sports clinical specialist applies that clinical science knowledge to evaluation and specialized intervention related to the athlete population in the context of sports medicine and athletic participation; as compared to a primary care specialist who applies that knowledge with an emphasis on triage management, referral coordination and focused/initial interventions with referrals to other professionals (including other rehab specialists as indicated).
Critical Inquiry Principles	While there are many similarities in critical inquiry principles between sports and primary care clinical specialists, a difference is the depth and emphasis on which each respective specialty places on each topic – sports specialists would go into greater depth related to sports practice related to the athlete population, whereas the primary care specialist would place more emphasis on research related to multisystem screening and triage management.

Women’s Health:

Foundational Sciences	Both women’s health and primary care clinical specialists demonstrate advanced foundational science knowledge across body systems including physiological responses in healthy and patient populations across the lifespan. A difference is the depth of specialized knowledge that a women’s health specialist holds in specific anatomical structures (e.g., sex specific differences in anatomical structures, bony structures pelvis, femur, chest wall, male and female genitalia, pelvic floor musculature and innervation, breast tissue, rectal-anal structures, fascia including abdominal wall, perineal and inguinal regions), whereas the primary care specialist has great
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	emphasis in multisystem assessment in the lens of triage management and referral coordination across the continuum of care.
Behavioral Sciences	<p>Both women’s health and primary care clinical specialists hold advanced knowledge in areas of teaching and learning theory. The women’s health clinical specialist holds advanced knowledge in the area of psychology with a deeper focus in women’s and men’s health including specific sex and gender issues (e.g. developmental psychology including body image, social psychology including issues of sexual and domestic abuse, abnormal psychology including mental illness prevalent in women such as depression and postpartum psychosis); and advanced knowledge in sociology and cultural competence specific to women’s and men’s health (e.g. sensitive issues related to partner intimacy and gender expression/identity). Although there are many similarities, and both the women’s health and primary care specialist will hold advanced knowledge in the area of health promotion and disease prevention for example, the difference is how the knowledge is conceptualized and applied to specific populations and settings. The women’s health clinical specialist applies this knowledge with greater depth related to women’s and men’s health populations and with greater depth of application to specialized interventions, whereas the primary care specialist applies this knowledge to populations presenting to primary care settings with an emphasis on triage management and referral coordination (e.g., this may include initiation of focused interventions with referrals to other health professions or PT specialists as indicated).</p>
Clinical Sciences	<p>There are multiple similarities in advanced clinical science knowledge between the women’s health and primary care clinical specialist related to exercise physiology, interpretation of special tests (including imaging/labs), movement science, pathokinesiology, pharmacology and prevention/wellness. The women’s health specialist holds greater depth in clinical science knowledge specific to sex and gender issues (e.g., common psychiatric symptoms/syndromes/classifications, including variations specific to sex), whereas the primary care specialist holds greater depth in clinical science knowledge specific to population health and epidemiology (e.g., impacts on lifespan management, and appropriate referrals for chronic disease management in a primary care setting). Another difference is the depth of which the women’s health clinical specialist applies that clinical science knowledge to evaluation and specialized intervention related to women’s and men’s health conditions; as compared to a primary care specialist who applies that knowledge with an emphasis on triage management, referral coordination and focused/initial interventions with referrals to other professionals (including other rehab specialists as indicated).</p>

Critical Inquiry Principles	The women's health clinical specialist appraises and applies research findings with great depth related to women's health physical therapy practice, whereas the primary care clinical specialist appraises evidence and applies research findings applicable to primary care physical therapy and across a wide breadth of other specialty areas of practice; with an emphasis on examination and triage, differential diagnosis, referral management and appropriateness, and health promotion/disease prevention concepts.
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Wound Management:

Foundational Sciences	The wound management specialty area involves understanding, assessing, and maintaining the integrity of the integumentary system across the lifespan; whereas the primary care specialist must have broader foundation science knowledge across all systems (e.g. cardiopulmonary, neuromusculoskeletal, integumentary, lymphatic, immunology, neurologic, gastrointestinal, vestibular, endocrine).
Behavioral Sciences	The wound management clinical specialist will hold advanced knowledge in the area of communication theory, cultural competence, teaching and learning theory and wellness/disease prevention as it pertains to the integumentary system and prevention of skin breakdown and wound issues. In contrast, the primary care specialist holds advanced knowledge in these areas well beyond the scope of the integumentary system. This includes advanced knowledge in pain science education and other behavioral change theories, as well as advanced knowledge in health promotion and disease prevention for a broad range of chronic noncommunicable diseases across the lifespan.
Clinical Sciences	The wound management clinical specialist demonstrates advanced clinical science knowledge in focused areas relevant to the integumentary system as well the impact of integumentary conditions on other body systems. The wound management specialist has advanced clinical knowledge in medical management, tests and procedures specific to integumentary and wound conditions; whereas the primary care specialist holds advanced knowledge in medical tests and procedures pertinent to a broad scope of conditions across body systems.
Critical Inquiry Principles	The wound management clinical specialist appraises and applies research findings with great depth related to wound management physical therapy practice, whereas the primary care clinical specialist appraises evidence and applies research findings applicable to primary care physical therapy and across a wide breadth of other specialty areas of practice; with an emphasis on examination and triage, differential diagnosis, referral management and appropriateness, and health promotion/disease prevention concepts.

CRITERIA #4: Specialized Functions

- 1) **Specify and describe in detail, specialized functions performed routinely by practitioners in the proposed specialty area. Petitions should only list the functions above and beyond the first professional degree program in physical therapy (e.g., beyond entry level program).**

The physical therapist practicing as a primary care clinical specialist demonstrates advanced client/patient management across the lifespan and across the continuum of care for patients who self-refer or are referred to physical therapy.

Examination: (Primary Care DSP pg.20, II.C.1)

History: The physical therapist practicing as a primary care clinical specialist effectively triages patients as a first contact provider at an advanced competency level. In addition to a typical physical therapy history, they efficiently integrate considerations regarding medications/supplements, psychological function and psychosocial behaviors, social habits, health habits, environmental factors, comorbidities, family/genetic history. The primary care specialist effectively integrates prior results of diagnostic tests (e.g., imaging, laboratory studies, EKGs, etc.) into comprehensive patient management at an advanced competency level.

Systems Review: The primary care specialist can efficiently and accurately conduct a multisystem review (e.g., cardiovascular, pulmonary, integumentary, neurological, urogenital, gastrointestinal, rheumatologic, endocrine) allowing early recognition and management of suspected conditions necessitating referral. They pay special attention to psychological assessment (e.g., depression and suicide screening) and facilitate appropriate referrals or alterations in physical therapy management (e.g., psychologically informed physical therapy). The primary care specialist demonstrates advanced ability to synthesize and apply systems review information while specifically considering the pathology, signs, and symptoms, and using it for critical clinical decision making. They demonstrate advanced ability to collaborate with the multidisciplinary primary care team and to rapidly facilitate the necessary care for such conditions (e.g., rapid and accurate recognition of need for referral for imaging, laboratory studies, consultation to other health care professionals).

Tests & Measures: At the primary care clinical specialist level, advanced clinical reasoning and pattern recognition leads to more efficient selection and prioritization of tests and measures to guide holistic patient care across the continuum. The primary care specialist routinely incorporates assessment of vital signs and considers comorbidities, health behaviors, and pharmacodynamics while integrating this information into patient management. The primary care specialist understands the pharmacodynamics of cardiovascular/pulmonary medications and how the effect of these medications influence the patient's performance. The primary care specialist relies on advanced ability to conduct a comprehensive systems screen and to rapidly integrate information to accurately identify when more in-depth systems testing is indicated. Common systems tests/assessments that may be incorporated in the primary care setting include but are not limited to: cardiovascular function (e.g., auscultation, electrocardiography, girth measurement, observations, palpation, sphygmomanometry, ankle/brachial index, perceived exertion scales, angina, claudication), lymphatic system function (e.g., girth and volume measurements, palpation, observation of skin texture),

integumentary function (e.g., signs of inflammation, infection, wounds, skin cancer screening), pulmonary function (e.g. breath sounds/rate, nail clubbing, lung auscultation, incorporation of pulmonary function test results), musculoskeletal function (e.g. advanced competency in fracture screening and recognizing conditions necessitating imaging referrals), neurologic assessment (e.g. comprehensive neuromotor screening, deep tendon reflexes, pathological reflexes/long tract signs, and cranial nerve assessments), vestibular assessment (e.g. BPPV, vestibulo-ocular reflex, oculomotor function, HINTS+ exam). The advanced skill and competency of the primary care specialist as compared to an entry level therapist is the depth of knowledge and ability to appropriately select tests and measures across body systems to facilitate safe and effective care across the lifespan.

Re-examination: The primary care specialist routinely conducts ongoing assessment and reassessment throughout the continuum of care. Unlike entry-level practitioners, the clinician practice at the specialist level can incorporate an advanced level of medical screening competency and pattern recognition to rapidly identify conditions requiring referral throughout an episode of care. Additionally, the primary care specialist may re-assess multiple areas of impairment relating to various bodily systems throughout the episode of care to provide a more complete physical therapy management plan for each patient (as opposed to primarily focusing on one area/bodily system throughout the episode of care).

Evaluation: (Primary Care DSP pg.23, II.C.2)

The physical therapist functioning at the specialist level can rapidly interpret, organize, and synthesize data succinctly and without bias. The primary care specialist demonstrates advanced skill and efficiency in triaging patients as first contact providers at an advanced competency level. They have developed advanced clinical pattern recognition to detect conditions necessitating referral to other care team members and/or for further medical testing. The primary care specialist can rapidly work through the differential diagnosis process while taking into consideration factors such as noncommunicable disease, lifestyle factors, social determinants of health. They have a deep knowledge base to incorporate data from ancillary testing (e.g., imaging studies, laboratory values, electrophysiological, etc.). The primary care specialist demonstrates appropriate selection, prioritization and sequencing of tests and measures across body systems and existing specialty areas while considering acceptable measurement properties to efficiently verify or refute the working hypothesis. Clinical expertise develops through deliberate practice and self-regulation. Primary care specialists can redirect their thought process when dealing with a complex issue due to not engaging in situational bias and considering all possibilities, ensuring that an optimal outcome is reached.

Diagnosis: (Primary Care DSP pg.23, II.C.3)

The primary care specialist can rapidly perform differential diagnosis for emergent versus non-emergent health conditions with advanced skill in quickly recognizing conditions necessitating referral to other care team members, with advanced ability to communicate findings and recommendations effectively and efficiently to the patient and to other healthcare professionals. Differential diagnosis is based on advanced knowledge and skill in multi body systems screening, advanced clinical pattern recognition and ability to rapidly integrate emerging presentations. In contrast to an entry level provider, the primary care specialist demonstrates advanced competency in

performing differential diagnosis ranging from basic to complex conditions with multi-system involvement across the lifespan. They identify and integrate information regarding contributing factors including chronic disease, health habits and social determinants as they interplay into the treatment diagnosis and care plan.

Prognosis: (Primary Care DSP pg.24, II.C.4)

The physical therapist practicing at the primary care specialist level can integrate various personal factors into rehab planning and prognosis for simple to complex conditions across the lifespan. The primary care specialist comprehensively recognizes and accounts for multiple factors such as medical comorbidities, psychosocial factors, health behaviors, social determinants of health and effectively applies this information in establishing accurate prognosis. The primary care specialist routinely and rapidly assesses response to intervention and makes appropriate modifications to the plan of care and established prognosis.

Interventions: (Primary Care DSP pg.24, II.C.5)

The primary care physical therapist practicing at the specialist level demonstrates advanced knowledge and skill to apply a broad scope of focused interventions across specialty areas designed to address multisystem involvement. The primary care physical therapist role includes comprehensive patient assessment and initiation of patient management/intervention, with referrals to specialists for more complex cases. Referrals to other rehab generalists or specialists may be indicated based on complexity of condition (e.g. if advanced skill beyond that of the PCPT's personal scope/skill set is required) or if a higher frequency/duration of visits is needed than is conducive to many highly evaluative primary care clinic settings. They consistently employ a multimodal approach with active rehab strategies in alignment with evidence-based practice and established clinical practice guidelines. They provide interventions across the lifespan for noncommunicable diseases thereby improving population health. The primary care specialist prioritizes active rehabilitation strategies/self-management and is equipped with a broad scope of advanced knowledge and skills to independently deliver focused interventions which may include the below and referrals as necessary:

- Education on a broad variety of topics (e.g., pain neuroscience education, graded activity principles, body mechanics training and ergonomic modification counseling, impact of nutrition and exercise on pain/nervous system, disease prevention/wellness principles, body systems health and screening, lifestyle modification to impact noncommunicable disease)
- Functional training in self-care and in domestic, education, work, community, social, and civic life (e.g. ADL and IADL training, environmental modification recommendations to optimize independence, task-specific functional training, cues and adjustments of faulty biomechanics)
- Manual therapy (e.g., soft tissue mobilization, joint mobilization/manipulation, dry needling, joint drainage, manual lymphatic drainage, visceral therapy)
- Therapeutic exercise with skill in adapting to lifespan needs, orthopedic conditions, neurologic conditions, and exercise prescription for management of non-communicable disease (e.g., HTN, diabetes, CHF) even in the absence of other functional complaints or disability. Plan specific type and dosage of home/independent exercise/treatment programs, identifying indications/contraindications.
- Vestibular rehabilitation (e.g., canalith repositioning maneuvers, gaze stabilization exercises)

- Neurologic interventions including task specific neuromuscular re-education, proprioceptive training, gait, and balance training
- Prescription, application, and fabrication (as appropriate) of protective, adaptive, or supportive devices/equipment (e.g., orthotics, braces, serial casting, wheelchairs, kinesiotaping, basic compression garments)
- Basic to complex seating/wheelchair/assistive technology management
- Gait training with a focus on orthopedics and/or neurologic impairments depending on specific case scenario
- Airway clearance techniques including breathing strategies, manual/mechanical techniques, and positioning
- Integumentary repair and protection strategies, basic wound management techniques
- Prevention, wellness, and health promotion services (e.g., providing education on healthy lifestyle habits such as physical activity, weight management, nutritional strategies, sleep behavior, smoking/alcohol use, healthy relationships, stress management)

Outcomes: (Primary Care DSP pg.26, II.C.6)

The primary care clinical specialist chooses appropriate, evidence-based outcome tools based on the patient/client's needs and examination findings. They select appropriate screening and risk-stratification tools to optimize frontline care coordination and to direct appropriate referrals (e.g., Keele STarT Back Screening Tool, PHQ-2 Depression Screening Tool, Columbia Suicide-Severity Rating Scale, etc.). Patient centered tools are used to collaborate with the patient on care planning and establishing long-term health and wellness plans which the patient is invested in (e.g., Patient Specific Functional Scale). In addition, the primary care physical therapist has knowledge of the most common assessment/outcome tools across body systems/pathologies (e.g., CCI for COPD, FACT series for patients with cancer, etc.).

Referral/Consultation: (Primary Care DSP pg. 27, II.C.7)

The primary care clinical specialist efficiently recognizes signs and symptoms necessitating urgent referral to physician or medical care. They refer and/or consult with other professionals for further examination as appropriate, based on systems review and medical screening. They collaborate and coordinate patient management throughout the continuum of care, and refer for needs beyond the scope of physical therapy practice

2) Describe the specialized skills required to perform functions described above.

The primary care specialist demonstrates expert clinical reasoning and proficiency in systems-based practice (e.g., actions that demonstrate an awareness and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value). They have acquired advanced skill and efficiency in pattern recognition which drives expert prioritization of differential diagnosis and systematic assessment to rule in/out hypotheses. They employ highly efficient processes to control reasoning in dealing with complex patients with multiple comorbidities. They demonstrate expert exam-planning and prioritization based on appropriate interpretation of subjective examination, including system screening, assessment of pain, sensitivity, and irritability. The PCPT has advanced skills to initiate a broad range of focused interventions across practice areas (e.g., manual therapy for orthopedic conditions, vestibular rehab, airway clearing

techniques including breathing strategies, integumentary repair and protection strategies, neurologic interventions, etc.). However, the *primary* role of the PCPT is comprehensive patient assessment with *initiation* of patient management/intervention, and *referrals* to other rehabilitative generalists or specialists, or multidisciplinary providers for more complex cases beyond personal scope/skillset or requiring more frequent visits than what is conducive to the highly evaluative primary care setting.

The primary care specialist displays flexibility and openness in the analytic process using metacognition to respond appropriately to emerging data and changing patient status. They routinely consider and address underlying multi-system contributors, health behaviors, and psychosocial factors that impact the overall condition of the patient. The primary care specialist has developed advanced skill in facilitating collaborative interprofessional communication, team management, and transitions of care for patients/clients throughout the lifespan and continuum of care.

The following table provides a detailed list of specialized skills required to perform the functions of primary care specialty practice:

Function	Specialized Skills
<p>Examination: (Primary Care DSP pg.20, II.C.1)</p> <p>The physical therapist practicing as a primary care clinical specialist demonstrates advanced patient management across the lifespan and across the continuum of care for patients who self-refer or are referred to physical therapy.</p> <p>At the clinical specialist practice level, baseline information is not simply collected and reported. The advanced practitioner synthesizes this information and applies it specifically considering the pathology, signs and symptoms, and uses it for expert clinical reasoning and proficiency in systems-based practice.</p>	<p>History: systematic gathering of data from both the past and the present related to why the patient/client is seeking the services of the physical therapist.</p> <ul style="list-style-type: none"> • Patient chief complaint(s) including description of symptoms (e.g., 24-hour behavior, aggravating/easing factors, body chart, onset, pain level) • Medical history (e.g., comorbidities, surgical history, family/genetic history, medications/supplements) • Prior diagnostic testing (e.g., consults, imaging, labs, neurological testing) • Previous intervention(s) and response • Prior level of function including level of physical fitness and leisure activities • Psychological function (e.g., memory, reasoning ability, anxiety, depression, morale, and fear avoidance beliefs) • Societal role(s) (e.g., worker, student, spouse, grandparent) • Environmental, social, and economic factors (e.g., physical environment, education, economic stability, social support) • Health behaviors (e.g., nutrition, physical activity, tobacco use, alcohol use, sleep habits, social habits) • Patient goals for treatment <p>Systems Review: is a brief or limited examination of the anatomical and physiological status of the cardiovascular/pulmonary, integumentary,</p>

	<p>musculoskeletal, and neuromuscular systems, and the communication, affect, cognition, language and learning style of the patient/client.</p> <ul style="list-style-type: none"> ● Multisystem review (e.g., cardiovascular, pulmonary, integumentary, lymphatic, neurological, urogenital, gastrointestinal) ● Psychological assessment including depression and suicide screening ● Assessment of communication affect, cognition, language, and learning style of patient/client. ● Early recognition and management of suspected conditions necessitating referral ● Prioritization of relevant screening procedures based on health condition, previous tests and interventions, patient history, and observation ● Appropriate documentation and communication of systems review results as indicated. <p>Tests and Measures: This category includes selection, prioritization, and performance of tests and measures related to and required of specialty practice.</p> <ul style="list-style-type: none"> ● Anthropometric measures (e.g., BMI, weight, height, waist circumference) ● Arousal, Attention, and Cognition (e.g., arousal and awareness scales, ability to process commands, communication and language barriers, level of consciousness, motivation, and capacity to participate in intervention, orientation to person, place, time, and situation, and recall ability). ● Circulation (e.g., arterial, venous, lymphatic) <ul style="list-style-type: none"> ○ Cardiovascular signs including heart rate, rhythm, and sounds; pressures and flow; and superficial vascular responses (e.g., auscultation, electrocardiography, girth measurement, observations, palpation, sphygmomanometry, ankle/brachial index, perceived exertion scales) ○ Cardiovascular symptoms (e.g., angina, claudication) ○ Differentiation of peripheral edema (e.g., vascular insufficiency, cardiac associated edema, lymphedema) ○ Physiological responses to position change (e.g., autonomic responses,
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	<p>central and peripheral pressures, heart rate and rhythm, respiratory rate, and rhythm, and ventilatory pattern)</p> <ul style="list-style-type: none"> ● Diagnostic testing (e.g., laboratory tests, imaging, ultrasound and electrophysiologic testing) ● Dynamic assessment with and without the use of assistive, adaptive, orthotic, or other devices/equipment <ul style="list-style-type: none"> ○ Activities of daily living performance ○ Balance (e.g., vestibular, proprioceptive, visual) ○ Coordination ○ Gait & locomotion (e.g., functional performance tests such as gait speed, gait indexes, 6-min walk, Timed Up-and-Go) ○ Motor function (e.g., assessment of motor learning and motor control) ○ Movement analysis (e.g., real time observation, video, technology) ○ Safety assessment (e.g., falls risk assessment, ergonomics) ● Illness behavior assessment (e.g. Screen Assist, Keele STarT Back Screening Tool, depression screen) ● Integumentary assessment (e.g., signs of inflammation, soft tissue swelling/inflammation/infection, wounds, skin cancer screening) ● Joint integrity (e.g., joint mobility assessment to include active and passive range of motion, passive accessory motions, response to manual provocation) ● Lymphatic system function (e.g., girth and volume measurements, palpation, observation of skin texture) ● Musculoskeletal assessment (e.g., muscle performance, endurance, strength, power, muscle tone, fracture screening) ● Neurologic assessment <ul style="list-style-type: none"> ○ Cranial nerve integrity ○ Neuromechanical assessment (e.g., nerve mobility/neurodynamics) ○ Neuromotor development and sensory integration (e.g., assessment of age-appropriate development, dexterity, coordination, and integration of
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	<p>somatosensory, visual, and vestibular systems)</p> <ul style="list-style-type: none"> ○ Neuromotor screen (e.g., upper and lower motor neuron screens including tests such as Babinski and Hoffman's) ○ Reflex integrity (e.g., including normal and pathological reflexes) ○ Sensory integrity (e.g., assessment of superficial sensation, dermatomes, myotomes, proprioception, and kinesthesia) <ul style="list-style-type: none"> ● Observation (e.g., posture, deformity, symmetry, affect, transfers, and motor control) ● Orthotic, protective, prosthetic, and supportive devices (e.g., assessment of appropriateness, use, remediation of impairment, alignment and fit, safety) ● Pain (e.g., assessment using questionnaires, behavioral scales, visual analog scales, and prioritizing exam procedures according to localized vs widespread pain and sensitivity) ● Palpation (e.g., edema, bony landmarks, muscles, tendons, ligaments, presence of abnormal tissue examination such as masses or deformities, symptom manifestation/modification) ● Pulmonary assessment (e.g., breath sounds/rate, nail clubbing, lung auscultation) ● Soft tissue assessment (e.g., myofascial mobility, pain pressure threshold) ● Special tests specific to working diagnosis are appropriately sequenced and prioritized with acceptable psychometric properties ● Vestibular assessment (e.g., BPPV, vestibulo-ocular reflex, oculomotor function, HINTS+ exam, Dizziness Handicap Inventory) <p>Re-examination: Ongoing assessment and reassessment throughout the continuum of care</p>
<p>Evaluation: (Primary Care DSP pg.23, II.C.2)</p>	<ul style="list-style-type: none"> ● Interpreting and integrating data from the examination (considering patient/client goals, stage/irritability of condition, personal and environmental factors) across the ICF domains to determine a diagnosis, prognosis, and plan of care.

	<ul style="list-style-type: none"> ● Integrating findings from other health care professionals and ancillary testing (e.g., imaging, labs, electrophysiological studies, pulmonary function test results) ● Identifying current, emerging, or potential “yellow” and/or “red flags” which may warrant caution throughout client management, medical referral, or both ● Triageing patients as first contact providers at an advanced competency level ● Linking examination findings to patient/client activity, quality of life, and wellness as established by the ICF ● Determining risk stratification (e.g., risk for chronicity or poor outcome, risk for delayed return to activity/work, suicide risk, depression)
<p>Diagnosis: (Primary Care DSP pg.23, II.C.3)</p>	<ul style="list-style-type: none"> ● Conducting rapid differential diagnosis and triage of emergent versus non-emergent health conditions ● Continuously refining the working hypothesis (e.g., primary hypothesis, competing hypotheses, complicating factors such as co-morbidity and economic/social factors) ● Using advanced pattern recognition to differentially diagnose by efficiently organizing examination data into recognized clusters or categories. ● Avoiding common diagnostic reasoning errors such as anchoring, confirmation bias, and other sources of medical error
<p>Prognosis: (Primary Care DSP pg.24, II.C.4)</p>	<ul style="list-style-type: none"> ● Establishing a prognosis, including the predicted optimal level of improvement in function and the amount of time needed to reach that level ● Selecting plan of care to include referral to another health care professional, physical therapy intervention, or further examination ● Developing a plan of care that prioritizes and links interventions to the working hypothesis and patient/client goals ● Responding to emerging data from examinations and interventions: <ul style="list-style-type: none"> ○ Assessing response to intervention (changes in signs and symptoms; new symptoms; changes in tissue response, mobility, and function) ○ Interpreting the significance of changes in signs and symptoms as they relate to the plan of care, and

	<p>modifying/redirecting examination and interventions accordingly (determine relationship between expected result and actual result, cause of change, relevance of change)</p>
<p>Interventions: (Primary Care DSP pg.24, II.C.5)</p> <p>The PCPT role is comprehensive patient assessment and initiation of patient management/intervention, with referrals to specialists for more complex cases or cases requiring more visits/follow-up than what is conducive to the primary care setting.</p>	<ul style="list-style-type: none"> ● Coordination, Communication, and Documentation <ul style="list-style-type: none"> ○ Communicating effectively with patients/clients, family members, caregivers, practitioners, consumers, payers, and policy makers about health issues ○ Discussing rationale for physical therapy examination and intervention procedures, including use of current best evidence, with patients/clients, peer professionals, and payers ○ Collaborating as a healthcare team member and leader to ensure that physical therapy is a part of an appropriate, culturally competent, comprehensive plan for care ○ Adapting communication to patient/client needs (e.g., educational/cognitive level, psychosocial needs) ○ Completing thorough documentation following guidelines and specific documentation formats required by the practice setting (e.g., communication with payer sources for maximizing treatment services and resources, legal protection of staff, patient, and/or facility) ● Patient/Client-Related Instruction <ul style="list-style-type: none"> ○ Providing instruction about diagnosis, prognosis, intervention strategies, responsibility/self-management within the plan of care ○ Developing mutually acceptable goals ○ Using biopsychosocial and biomedical models ○ Applying pain physiology and dose response ○ Providing instruction on disease prevention and wellness

	<ul style="list-style-type: none"> ○ Integrating behavior modification and cognitive-behavioral approaches (mental) ○ Planning for end of episode of care ● Procedural Interventions (<i>This category includes selection, prioritization, and knowledge of performance ability for procedural interventions related to and required of specialty practice.</i>) <ul style="list-style-type: none"> ○ Airway clearance techniques (e.g., breathing strategies, manual/mechanical techniques, and positioning) ○ Body mechanics training and ergonomic modification counseling ○ Functional training in self-care and in domestic, education, work, community, social, and civic life (e.g., ADL and IADL training, environmental modification recommendations to optimize independence, task-specific functional training, cues and adjustments of faulty biomechanics) ○ Gait training (general, with assistive devices, and with technology) ○ Graded exposure/ graded activity ○ Integumentary repair and protection techniques (e.g., managing positioning/postures, orthotic selection, protective and supportive device recommendations, debridement, wound therapy, dressings, and modalities) ○ Manual therapy (e.g., soft tissue mobilization, joint mobilization/manipulation, dry needling, lymphatic drainage, visceral therapy) ○ Neurological therapy treatment (e.g., task specific neuromuscular reeducation, balance activities, gait training) ○ Plan specific type and dosage of home/independent exercise/treatment programs, identifying indications/ contraindications ○ Prescription, application and/or fabrication of protective, adaptive, or supportive device or equipment
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	<p>(e.g., orthotics, braces, serial casting, wheelchairs, kinesiotaping)</p> <ul style="list-style-type: none"> ○ Prevention, Wellness, and Health Promotion Services <ul style="list-style-type: none"> ▪ Providing culturally appropriate physical therapy services for prevention, health promotion, and fitness and wellness programs to individuals, groups, and communities ▪ Promoting health and quality of life for patients/clients by providing information on health promotion, fitness, wellness, disease, impairment, functional limitations, disability, injury prevention, secondary prevention in chronic disease, disability managements and health risks related to age, gender, culture, and lifestyle ▪ Providing education, behavior strategies, referral opportunities, and identification of supportive resources for adherence to health care recommendations (e.g., stress management, weight management, nutritional strategies, sleep health, alcohol moderation, substance-free and violence-free living) ○ Proprioception training (e.g., repositioning, balance, agility) ○ Therapeutic exercise (e.g., aerobic capacity and endurance, motor control and coordination, muscle strengthening and endurance) ○ Vestibular training (e.g., canalith repositioning maneuvers, gaze stabilization exercises)
<p>Outcomes: (Primary Care DSP pg.26, II.C.6)</p>	<ul style="list-style-type: none"> ● Assessing remediation of activity and participation limitations, optimization of patient satisfaction, and promotion of primary and secondary prevention.

	<ul style="list-style-type: none"> • Choosing appropriate assessment measures to determine initial and long-term responses to intervention. • Using applicable, evidence-based outcomes measurement tools/questionnaires/scales (e.g., STarT BACK, Lower Extremity Functional Scale, Timed Up and Go, 6-minute walk test) • Determine attainment of agreed-upon functional goal(s) and level of patient/client satisfaction • Assessing efficacy of resources used to achieve patient outcomes
<p>Referral/Consultation: (Primary Care DSP pg. 27, II.C.7)</p>	<ul style="list-style-type: none"> • Efficiently recognizing signs and symptoms necessitating urgent referral to physician or emergency medical care • Referring and/or consulting with other professionals for further examination as appropriate, based on systems review and medical screening • Referring for needs beyond the scope of physical therapy practice • Collaborating and coordinating patient management throughout the continuum of care

3) Discuss in detail how these specialized functions and skills differ from the functions required in those specialty areas already recognized by ABPTS.

In review of current DSPs, it was noted that there are numerous commonalities of function across all areas of specialty practice. Clinical specialists in existing specialty areas demonstrate a deeper but narrower scope of advanced level functions and skills within their respective area of specialty practice. In contrast, the primary care specialist must demonstrate greater breadth of advanced function and skill across existing specialty areas and body systems as it pertains to all populations, with greater emphasis on examination, diagnostics, and referral management. For existing areas of specialty, care is often episodic in nature, whereas the primary care specialty shifts away from episodic care toward a more continuous model of care across the lifespan with emphasis on health promotion and chronic disease prevention/management.

Whereas many of the existing areas of specialty may operate as an ancillary service/provider; the primary care specialist works within an integrated model of care. They demonstrate advanced ability to effectively guide the work of the multidisciplinary care team, while remaining within personal and professional scope of practice, with high value referrals (best practices that may lead to better care at a lower cost) as indicated to ensure a collaborative approach that optimizes care. They demonstrate advanced skill in educating and advocating across the health care team to reduce overutilization of pharmacology, imaging, and other diagnostic studies. They have advanced knowledge regarding the impact of pharmacological interventions and how to educate and empower

the patient while promoting self-advocacy for management. As a front-line provider, the primary care specialist possesses expert competence and skill to apply advanced pattern recognition to efficiently recognize the need for referral or additional diagnostics, and to interpret and effectively integrate results into the overall management of moderate to complex cases. The specialist will appreciate the relevance and impact on overall prognosis when taking patient pathology into consideration.

PCPT specialists deliver focused interventions in highly efficient, prioritized manner across a great breadth of practice areas with an emphasis on health promotion/wellness and referrals to other professionals within and beyond rehabilitation as indicated. As compared to other specialty areas with greater depth in intervention function and skill, the primary care specialist possesses greater breadth of intervention function and skill with an emphasis on wellness/prevention and chronic disease management across the lifespan. There is a strong focus on active rehab strategies and self-management within this highly evaluative model of care. The primary care PT focuses on initiation of patient management/intervention, with referrals to specialists for more complex cases. Referrals to other rehab generalists or specialists may be indicated based on complexity of condition or frequency/duration of plan of care needed. They promote and provide holistic health care by providing comprehensive wellness coaching (e.g., sleep, diet, physical activity, mindfulness, chronic disease management, etc.) across the lifespan. For example, a patient who drives 3 hours away to a rural primary care clinic may not have the ability to follow-up, which makes a health promotion and primary prevention conversation all the more important. Primary care specialists are triage experts and demonstrate advanced skill in navigating care planning, including referral to other PT specialists for ongoing care as indicated. Primary care specialists may also act as liaisons to (if available) a local network of specialist physical therapists to direct patients to more specialized physical therapist care as needed. They may also serve as a resource to other physical therapists to help coordinate patient referrals and care.

The following tables provide detailed differentiation between the functions and skills of the primary care clinical specialist and specialists in existing areas of specialty practice:

Cardiovascular & Pulmonary:

<p>Examination (History, Systems Review, Tests and Measures, Re-Examination) (Primary Care DSP pg. 20, II.C.1)</p>	<p>While there are multiple commonalities in examination function between a cardiovascular and pulmonary specialist and primary care clinical specialist, the cardiovascular and pulmonary specialist demonstrates greater depth in taking a history, systems review, tests/measures with a focus on information related to the function of the cardiovascular and pulmonary systems. In contrast, the primary care specialist demonstrates greater breadth of examination across body systems and areas of practice.</p>
<p>Evaluation (Primary Care DSP pg. 23, II.C.2)</p>	<p>Processes of evaluation are a standard of practice across all areas of physical therapy. There are multiple commonalities in evaluation function between a cardiovascular and pulmonary specialist and primary care clinical specialist. The</p>

	<p>cardiovascular and pulmonary DSP includes greater depth related to the cardiovascular and pulmonary systems, whereas the primary care DSP includes greater breadth across practice areas and body systems with an emphasis on advanced competency and efficiency in triage management as a first contact provider with ability to determine risk stratification (e.g., risk for chronicity of poor outcome, risk for delayed return to activity/work, suicide risk, depression) as it impacts referral management in a primary care setting.</p>
<p>Diagnosis (Primary Care DSP pg. 23, II.C.3)</p>	<p>Both the cardiovascular and pulmonary and primary care DSP include the function and skill to organize data into recognized clusters or categories. The cardiovascular and pulmonary specialist functions with greater depth of diagnostic skill related to the function of the cardiovascular and pulmonary systems; whereas the primary care specialist functions with greater breadth of skill across practice areas/body systems. Additionally, the primary care DSP places emphasis on diagnostic reasoning and ability to rapidly conduct differential diagnosis and triage of emergent versus non-emergent health conditions.</p>
<p>Prognosis Primary Care DSP pg. 24, II.C.4)</p>	<p>The cardiovascular and pulmonary specialist functions with greater depth of advanced prognostic skill related to the cardiovascular and pulmonary systems, whereas the primary care specialist functions with greater breadth of prognostic skills across practice areas and body systems through sustained patient relationships.</p>
<p>Interventions (Primary Care DSP pg. 24, II.C.5)</p>	<p>While there are many commonalities in intervention function between cardiovascular and pulmonary specialists and primary care specialists, the cardiovascular and pulmonary specialist must demonstrate greater depth in interventions specifically related to the cardiovascular and pulmonary systems, whereas the primary care specialist must demonstrate greater breadth of intervention skill across the practice areas and body systems with an emphasis on focused/initiation of intervention and referrals in complex cases or cases requiring extensive follow-up not conducive to highly evaluative primary care model of care.</p>
<p>Outcomes (Primary Care DSP pg. 26, II.C.6)</p>	<p>While there are many commonalities in outcomes function between a cardiovascular and pulmonary specialist and a primary clinical specialist, the cardiovascular and pulmonary clinical specialist focuses on outcomes in greater depth related to the cardiovascular and pulmonary systems, whereas the primary care specialist includes greater breadth of measures and tools applicable across practice areas and body systems.</p>

<p>Referral/Consultation (Primary Care DSP pg. 27, II.C.7)</p>	<p>While the cardiovascular and pulmonary DSP includes referring patient/client to other professionals for findings that are outside the scope of the physical therapist's knowledge or expertise, the primary care DSP includes greater emphasis on referral/consultation management including ability to collaborate and coordinate patient management throughout the continuum of care. The PCPT is coordinating and 'quarterbacking' the multidisciplinary approach, providing high value referrals and continued engagement throughout the referral process.</p>
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Clinical Electrophysiology:

<p>Examination (History, Systems Review, Tests and Measures, Re-Examination) (Primary Care DSP pg. 20, II.C.1)</p>	<p>While there are multiple commonalities in examination function between a clinical electrophysiologic specialist and primary care clinical specialist, the clinical electrophysiologic specialist demonstrates greater depth in taking a history, systems review, tests/measures with a focus on information related to the integrity of the neuromusculoskeletal and integumentary systems as it relates to neurophysiology and indications/rationale for clinical electrophysiologic examination as well as planning and completing the electrophysiological procedures. In contrast, the primary care specialist demonstrates greater breadth of examination across body systems and areas of practice.</p>
<p>Evaluation (Primary Care DSP pg. 23, II.C.2)</p>	<p>Processes of evaluation are a standard of practice across all areas of physical therapy. There are commonalities in evaluation function between a clinical electrophysiologic and primary care clinical specialist. However, the clinical electrophysiologic DSP includes greater depth related to the evaluation of electrophysiologic characteristics of nerve and muscle detected by clinical electrophysiologic examination; whereas the primary care DSP includes greater breadth across practice areas and body systems with an emphasis on advanced competency and efficiency in triage management as a first contact provider with ability to determine risk stratification (e.g., risk for chronicity of poor outcome, risk for delayed return to activity/work, suicide risk, depression) as it impacts referral management in a primary care setting.</p>
<p>Diagnosis (Primary Care DSP pg. 23, II.C.3)</p>	<p>Both the clinical electrophysiologic and primary care DSP include the function and skill to organize data into recognized clusters or categories. The clinical electrophysiologic specialist functions with greater depth of diagnostic skill specific to neuromusculoskeletal and clinical electrophysiologic findings; whereas the primary care specialist functions with greater breadth of skill across</p>

	practice areas/body systems. Additionally, the primary care DSP places emphasis on diagnostic reasoning and ability to rapidly conduct differential diagnosis and triage of emergent versus non-emergent health conditions.
Prognosis Primary Care DSP pg. 24, II.C.4)	The clinical electrophysiologic specialist functions with greater depth of advanced prognostic skill related to electrophysiology, whereas the primary care specialist functions with greater breadth of prognostic skills across practice areas and body systems through sustained patient relationships.
Interventions (Primary Care DSP pg. 24, II.C.5)	The clinical electrophysiologic specialist intervention focuses on patient/client instruction related to electrophysiologic findings and coordination of appropriate follow-up plan (referrals, additional examination, etc.) related to the clinical electrophysiologic evaluation, whereas the primary care specialist must demonstrate greater breadth of intervention skill across the practice areas and body systems with an emphasis on focused/initiation of intervention and referrals in complex cases or cases requiring extensive follow-up not conducive to highly evaluative primary care model of care.
Outcomes (Primary Care DSP pg. 26, II.C.6)	The electrophysiologic DSP does not specifically address outcomes in the patient/client management model, whereas the primary care specialist includes a great breadth of measures and tools applicable across practice areas and body systems.
Referral/Consultation (Primary Care DSP pg. 27, II.C.7)	While the clinical electrophysiologic DSP includes ability to refer to other professionals for findings related to clinical electrophysiologic evaluation, the primary care DSP includes greater emphasis on referral/consultation management including ability to collaborate and coordinate patient management throughout the continuum of care. The PCPT is coordinating and 'quarterbacking' the multidisciplinary approach, providing high value referrals and continued engagement throughout the referral process.

Geriatric:

Examination (History, Systems Review, Tests and Measures, Re-Examination) (Primary Care DSP pg. 20, II.C.1)	While there are multiple commonalities in examination function between a geriatric and primary care clinical specialist, the geriatric specialist focuses specifically on the aging population, whereas the primary care specialist must demonstrate skilled examination across the lifespan.
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<p>Evaluation (Primary Care DSP pg. 23, II.C.2)</p>	<p>While there are multiple commonalities in evaluation function between a geriatric and primary care clinical specialist, the geriatric specialist focuses specifically on the aging population, whereas the primary care specialist must demonstrate skilled evaluation across the lifespan. Additionally, the primary care DSP includes a stronger emphasis on advanced competency and efficiency in triage management as a first contact provider with ability to determine risk stratification (e.g., risk for chronicity of poor outcome, risk for delayed return to activity/work, suicide risk, depression) as it impacts referral management in a primary care setting.</p>
<p>Diagnosis (Primary Care DSP pg. 23, II.C.3)</p>	<p>While there are multiple commonalities in diagnostic function between a geriatric and primary care clinical specialist, the geriatric specialist focuses specifically on the aging population, whereas the primary care specialist must demonstrate skilled evaluation across the lifespan. Additionally, the primary care DSP places emphasis on diagnostic reasoning and ability to rapidly conduct differential diagnosis and triage of emergent versus non-emergent health conditions.</p>
<p>Prognosis Primary Care DSP pg. 24, II.C.4)</p>	<p>While there are multiple commonalities in prognostic function between a geriatric and primary care clinical specialist, the pediatric specialist focuses specifically on the aging population, whereas the primary care specialist must demonstrate skilled prognostics across the lifespan through sustained patient relationships.</p>
<p>Interventions (Primary Care DSP pg. 24, II.C.5)</p>	<p>While there are many commonalities in intervention function between geriatric and primary care specialists, the geriatric specialist must demonstrate greater depth in interventions specifically related to the aging population, whereas the primary care specialist must demonstrate greater breadth of intervention skill across the lifespan with emphasis on focused/initiation of intervention and referrals in complex cases or cases requiring extensive follow-up not conducive to highly evaluative primary care model of care.</p>
<p>Outcomes (Primary Care DSP pg. 26, II.C.6)</p>	<p>While there are many commonalities in outcomes function between a geriatric and primary clinical specialist, the geriatric clinical specialist focuses on outcomes in greater depth related to the aging population whereas the primary care specialists must include measures and tools applicable to lifespan care. Additionally, the PCPT is uniquely positioned to assess outcomes longitudinally across the lifespan to impact individual and population health and optimize management of noncommunicable diseases (e.g. functional decline related to diabetes, COPD, etc.).</p>

<p>Referral/Consultation (Primary Care DSP pg. 27, II.C.7)</p>	<p>While the geriatric DSP includes referring the patient/client to other professionals for findings that are outside the scope of the physical therapist's knowledge or expertise, the primary care DSP includes greater emphasis on referral/consultation management including ability to collaborate and coordinate patient management throughout the continuum of care and throughout the lifespan. The PCPT is coordinating and 'quarterbacking' the multidisciplinary approach, providing high value referrals and continued engagement throughout the referral process.</p>
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Neurology:

<p>Examination (History, Systems Review, Tests and Measures, Re-Examination) (Primary Care DSP pg. 20, II.C.1)</p>	<p>While there are multiple commonalities in examination function between a neurologic and primary care clinical specialist, the neurologic specialist focuses specifically on the neurologic population with greater depth related to neuroanatomy, neurophysiology, neural control, and principles of motor learning; whereas the primary care specialist must demonstrate greater breadth of skilled examination across body systems and areas of practice.</p>
<p>Evaluation (Primary Care DSP pg. 23, II.C.2)</p>	<p>Processes of evaluation are a standard of practice across all areas of physical therapy. There are multiple commonalities in evaluation function between a neurologic specialist and primary care clinical specialist. The neurologic DSP includes greater depth related to the neurologic system, whereas the primary care DSP includes greater breadth across practice areas and body systems with an emphasis on advanced competency and efficiency in triage management as a first contact provider with ability to determine risk stratification (e.g., risk for chronicity of poor outcome, risk for delayed return to activity/work, suicide risk, depression) as it impacts referral management in a primary care setting.</p>
<p>Diagnosis (Primary Care DSP pg. 23, II.C.3)</p>	<p>Both the neurologic and primary care DSP include the function and skill to organize data into recognized clusters or categories. The neurologic specialist functions with greater depth of diagnostic skill related to the function of the neurologic system; whereas the primary care specialist functions with greater breadth of skill across practice areas/body systems. Additionally, the primary care DSP places emphasis on diagnostic reasoning and ability to rapidly conduct differential diagnosis and triage of emergent versus non-emergent health conditions.</p>
<p>Prognosis</p>	<p>The neurologic specialist functions with greater depth of advanced prognostic skill related to the neurologic system</p>

Primary Care DSP pg. 24, II.C.4)	and the neurologic condition impact on other body systems, whereas the primary care specialist functions with greater breadth of prognostic skills across practice areas and body systems through sustained patient relationships.
Interventions (Primary Care DSP pg. 24, II.C.5)	While there are many commonalities in intervention function between neurologic specialists and primary care specialists, the neurologic specialist must demonstrate greater depth in interventions specifically related to the neurologic system (e.g., principles of motor control and motor learning, task specific neuro re-education, etc.); whereas the primary care specialist must demonstrate greater breadth of intervention skill across the practice areas and body systems with an emphasis on focused/initiation of intervention and referrals in complex cases or cases requiring extensive follow-up not conducive to highly evaluative primary care model of care.
Outcomes (Primary Care DSP pg. 26, II.C.6)	While there are many commonalities in outcomes function between a neurologic specialist and a primary clinical specialist, the neurologic clinical specialist focuses on outcomes in greater depth related to the neurologic system, whereas the primary care specialist includes a greater breadth of measures and tools applicable across practice areas and body systems.
Referral/Consultation (Primary Care DSP pg. 27, II.C.7)	While the neurologic DSP includes conferring with and referring to other professionals regarding examination needs that are beyond the scope of physical therapy, the primary care DSP includes greater emphasis on referral/consultation management including ability to collaborate and coordinate patient management throughout the continuum of care. The PCPT is coordinating and 'quarterbacking' the multidisciplinary approach, providing high value referrals and continued engagement throughout the referral process.

Oncology:

Examination (History, Systems Review, Tests and Measures, Re-Examination) (Primary Care DSP pg. 20, II.C.1)	While there are multiple commonalities in examination function between an oncologic specialist and primary care clinical specialist, the oncologic specialist demonstrates greater depth in taking a history, systems review, tests/measures with a focus on information related to cancer care and treatment. In contrast, the primary care specialist demonstrates greater breadth of examination across body systems and areas of practice.
Evaluation	Processes of evaluation are a standard of practice across all areas of physical therapy. There are multiple commonalities

<p>(Primary Care DSP pg. 23, II.C.2)</p>	<p>in evaluation function between an oncologic and primary care clinical specialist. The oncologic DSP includes greater depth in related to cancer care evaluation and referrals (and the ability to execute these processes with a comprehensive understanding of cancer care across the continuum), whereas the primary care DSP includes greater breadth across practice areas and body systems with an emphasis on advanced competency and efficiency in triage management as a first contact provider with ability to determine risk stratification (e.g., risk for chronicity of poor outcome, risk for delayed return to activity/work, suicide risk, depression) as it impacts referral management in a primary care setting.</p>
<p>Diagnosis (Primary Care DSP pg. 23, II.C.3)</p>	<p>Both the oncologic and primary care DSP include the function and skill to organize data into recognized clusters or categories. The oncologic specialist functions with greater depth of diagnostic skill related to cancer care and ability to identify underlying aspects impacting the oncologic plan of care; whereas the primary care specialist functions with greater breadth of skill across practice areas/body systems and well beyond that of cancer care. Additionally, the primary care DSP places emphasis on diagnostic reasoning and ability to rapidly conduct differential diagnosis and triage of emergent versus non-emergent health conditions.</p>
<p>Prognosis Primary Care DSP pg. 24, II.C.4)</p>	<p>The oncologic specialist functions with greater depth of advanced prognostic skill related to cancer care (e.g., unique knowledge of cancer care and the known effects and trajectory of care leading to advanced prognostic skill throughout all aspects of cancer treatment), whereas the primary care specialist functions with greater breadth of prognostic skills across practice areas and body systems through sustained patient relationships.</p>
<p>Interventions (Primary Care DSP pg. 24, II.C.5)</p>	<p>While there are many commonalities in intervention function between oncologic and primary care specialists, the oncologic specialist must demonstrate greater depth in interventions specifically related to the cancer care, whereas the primary care specialist must demonstrate greater breadth of intervention skill across the practice areas and body systems with an emphasis on focused/initiation of intervention and referrals in complex cases or cases requiring extensive follow-up not conducive to highly evaluative primary care model of care.</p>
<p>Outcomes (Primary Care DSP pg. 26, II.C.6)</p>	<p>While there are many commonalities in outcomes function between an oncologic and primary care clinical specialist, the oncologic clinical specialist focuses on outcomes in greater depth related to the cancer care, whereas the primary care</p>

	specialist includes greater breadth of measures and tools applicable across practice areas and body systems.
Referral/Consultation (Primary Care DSP pg. 27, II.C.7)	While the oncology DSP includes ability to establish differential diagnosis based on awareness of cancer disease process and determines the need to refer patients or clients to other health care providers, the primary care DSP includes greater emphasis on referral/consultation management including ability to collaborate and coordinate patient management throughout the continuum of care. The PCPT is coordinating and 'quarterbacking' the multidisciplinary approach, providing high value referrals and continued engagement throughout the referral process.

Orthopedics:

Examination (History, Systems Review, Tests and Measures, Re-Examination) (Primary Care DSP pg. 20, II.C.1)	While there are multiple commonalities in the examination function between an orthopedic and primary care clinical specialist, the primary care DSP includes a stronger emphasis on effective triage management as a first contact provider with great breadth of systems review including psychological assessment and suicide screening in a primary care setting as well as early recognition and management of suspected conditions necessitating referral. There are multiple commonalities in tests and measures, though the primary care DSP includes greater breadth of tests/measures across systems including pulmonary assessment (e.g. breath sounds/rate, nail clubbing, lung auscultation) and vestibular assessment (e.g. BPPV tests, vestibulo-ocular reflex, oculomotor function, HINTS+ exam).
Evaluation (Primary Care DSP pg. 23, II.C.2)	While there are multiple commonalities in evaluation function between an orthopedic and primary care clinical specialist, the primary care DSP includes greater breadth of integrating findings from other health care professionals and ancillary testing (e.g., pulmonary function test results), and a stronger emphasis on advanced competency and efficiency in triage management as a first contact provider. The primary care DSP also emphasizes ability to determine risk stratification (e.g., risk for chronicity of poor outcome, risk for delayed return to activity/work, suicide risk, depression) as it impacts referral management in a primary care setting.
Diagnosis (Primary Care DSP pg. 23, II.C.3)	Both the orthopedic and primary care DSP include the function and skill to organize data into recognized clusters or categories. In contrast, the primary care DSP places emphasis on diagnostic reasoning and ability to rapidly

	conduct differential diagnosis and triage of emergent versus non-emergent health conditions.
Prognosis Primary Care DSP pg. 24, II.C.4)	There are many commonalities in the prognostic function of orthopedic and primary care specialists. However, the orthopedic specialist may have a deeper level of prognostication relative to the orthopedic condition for which the patient/client is seeking care, whereas the primary care specialist demonstrates greater breadth of prognostication across body systems and across the lifespan through sustained patient relationships.
Interventions (Primary Care DSP pg. 24, II.C.5)	While there are many commonalities in intervention function between orthopedic and primary care specialists, the orthopedic specialist must demonstrate greater depth in orthopedic and musculoskeletal related interventions whereas the primary care specialist must demonstrate greater breadth of intervention skill with emphasis on focused/initiation of intervention and referrals in complex cases or cases requiring extensive follow-up not conducive to highly evaluative primary care model of care. As compared to the orthopedic DSP, the primary care DSP includes greater breadth of intervention across practice areas (e.g., including airway clearance techniques, basic integumentary repair and protection techniques, vestibular training) with an emphasis on prevention, wellness, and health promotion services.
Outcomes (Primary Care DSP pg. 26, II.C.6)	While the orthopedic and primary care DSP shows very similar functions related to outcomes, the primary care specialist demonstrates greater breadth of outcomes assessment across body systems and across the lifespan, with an emphasis on assessing the efficacy of the resources utilized to meet the patient's goals (e.g. stewardship of healthcare resources). The PCPT is uniquely positioned to assess outcomes longitudinally across the lifespan to impact individual and population health and optimize management of noncommunicable diseases (e.g. functional decline related to diabetes, COPD, etc.).
Referral/Consultation (Primary Care DSP pg. 27, II.C.7)	While the orthopedic DSP includes selecting an intervention approach to include referral to another health care professional for further examination, the primary care DSP includes greater emphasis on referral/consultation management including ability to collaborate and coordinate patient management throughout the continuum of care. The PCPT is coordinating and 'quarterbacking' the multidisciplinary approach, providing high value referrals and continued engagement throughout the referral process.

Pediatrics:

Examination (History, Systems Review, Tests and Measures, Re-Examination) (Primary Care DSP pg. 20, II.C.1)	While there are multiple commonalities in examination function between a pediatric and primary care clinical specialist, the pediatric specialist focuses specifically on children, whereas the primary care specialist must demonstrate skilled examination across the lifespan.
Evaluation (Primary Care DSP pg. 23, II.C.2)	While there are multiple commonalities in evaluation function between a pediatric and primary care clinical specialist, the pediatric specialist focuses specifically on children, whereas the primary care specialist must demonstrate skilled evaluation across the lifespan. Additionally, the primary care DSP includes a stronger emphasis on advanced competency and efficiency in triage management as a first contact provider with ability to determine risk stratification (e.g., risk for chronicity of poor outcome, risk for delayed return to activity/work, suicide risk, depression) as it impacts referral management in a primary care setting.
Diagnosis (Primary Care DSP pg. 23, II.C.3)	While there are multiple commonalities in diagnostic function between a pediatric and primary care clinical specialist, the pediatric specialist focuses specifically on children, whereas the primary care specialist must demonstrate skilled evaluation across the lifespan. Additionally, the primary care DSP places emphasis on diagnostic reasoning and ability to rapidly conduct differential diagnosis and triage of emergent versus non-emergent health conditions.
Prognosis Primary Care DSP pg. 24, II.C.4)	While there are multiple commonalities in prognostic function between a pediatric and primary care clinical specialist, the pediatric specialist focuses specifically on children, whereas the primary care specialist must demonstrate skilled prognostics across the lifespan through sustained patient relationships.
Interventions (Primary Care DSP pg. 24, II.C.5)	While there are many commonalities in intervention function between pediatric and primary care specialists, the pediatric specialist must demonstrate greater depth in interventions specifically related to the pediatric population, whereas the primary care specialist must demonstrate greater breadth of intervention skill across the lifespan with emphasis on focused/initiation of intervention and referrals in complex cases or cases requiring extensive follow-up not conducive to highly evaluative primary care model of care.
Outcomes (Primary Care DSP pg. 26, II.C.6)	While there are many commonalities in outcomes function between a pediatric and primary clinical specialist, the pediatric clinical specialist focuses on outcomes in greater

	depth related to the pediatric population whereas the primary care specialists must include measures and tools applicable to lifespan care. The PCPT is uniquely positioned to assess outcomes longitudinally across the lifespan to impact individual and population health and optimize management of noncommunicable diseases (e.g. functional decline related to diabetes, COPD, etc.).
Referral/Consultation (Primary Care DSP pg. 27, II.C.7)	While the pediatric DSP includes referring the patient or client/family in a timely manner to other professionals including other appropriately qualified physical therapists for findings outside their personal scope, the primary care DSP includes greater emphasis on referral/consultation management including ability to collaborate and coordinate patient management throughout the continuum of care and throughout the lifespan. The PCPT is coordinating and 'quarterbacking' the multidisciplinary approach, providing high value referrals and continued engagement throughout the referral process.

Sports:

Examination (History, Systems Review, Tests and Measures, Re-Examination) (Primary Care DSP pg. 20, II.C.1)	While there are multiple commonalities in examination function between an sports specialist and primary care clinical specialist, the sports specialist focuses specifically on examination with the intent of returning an athlete to sport, whereas the primary care specialist greater breadth of examination across body systems and areas of practice regardless of setting or occupation.
Evaluation (Primary Care DSP pg. 23, II.C.2)	Although there are similar considerations during evaluation with the sports DSP and the primary care DSP, the sports DSP evaluation is stated to be within the lens of “sport-specific injury epidemiology, sport-specific biomechanical demands, comorbidities and risk factors” specifically related to the athlete population, whereas the primary care DSP focuses on evaluation for participation using the ICF model and quality of life for all populations across settings, occupations, and ages.
Diagnosis (Primary Care DSP pg. 23, II.C.3)	Although there may be an overlap of diagnostic considerations across sports and primary care, the diagnoses used in the setting of a sports PT are utilized in the case that the patient is an athlete, whereas a primary care PT will utilize a diagnosis regardless of participation in sport. Additionally, the primary care DSP places emphasis on diagnostic reasoning and ability to rapidly conduct differential

	diagnosis and triage of emergent versus non-emergent health conditions.
Prognosis Primary Care DSP pg. 24, II.C.4)	There are many commonalities in the prognostic function of sports and primary care specialists. However, the sports specialist focuses on prognosis of injury in regard to participation in sport and risk of reinjury, whereas the primary care specialist demonstrates greater breadth of prognostication across body systems and across the lifespan through sustained patient relationships regardless of setting and occupation.
Interventions (Primary Care DSP pg. 24, II.C.5)	The interventions of a sports PT focus on safely returning that athlete to sport (including rehab following sports injury and return to activity, injury prevention, and education/counseling on macro/micro nutrients and dietary supplements for sport), whereas the primary care specialist must demonstrate greater breadth of intervention skill regardless of setting or occupation with emphasis on focused/initiation of intervention and referrals in complex cases or cases requiring extensive follow-up not conducive to highly evaluative primary care model of care. As compared to the sports DSP, the primary care DSP includes greater breadth of intervention across practice areas (e.g., including airway clearance techniques, basic integumentary repair and protection techniques, vestibular training) with an emphasis on prevention, wellness, and health promotion services.
Outcomes (Primary Care DSP pg. 26, II.C.6)	The sports PT specialist focuses on sport and athlete specific outcomes (e.g. sport-specific testing criteria, human performance enhancement, etc.), whereas the primary care specialist demonstrates greater breadth of outcomes assessment across body systems and across the lifespan regardless of occupation. Additionally, the PCPT is uniquely positioned to assess outcomes longitudinally across the lifespan to impact individual and population health and optimize management of noncommunicable diseases (e.g. functional decline related to diabetes, COPD, etc.).
Referral/Consultation (Primary Care DSP pg. 27, II.C.7)	Although this is an area that will be seen throughout areas of specialty practice this is a particular strength in the specialty of the primary care PT. The sports DSP focuses on medical/surgical considerations or need for reassessment by another provider, whereas primary care DSP includes greater emphasis on referral/consultation management including ability to collaborate and coordinate patient management throughout the continuum of care. The PCPT is coordinating and 'quarterbacking' the multidisciplinary approach, providing

	high value referrals and continued engagement throughout the referral process.
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Women's Health:

<p>Examination (History, Systems Review, Tests and Measures, Re-Examination) (Primary Care DSP pg. 20, II.C.1)</p>	<p>There are multiple commonalities in examination function between a women's health and primary care clinical specialist. While both the women's health and primary care clinical specialist will complete multisystem screening and examination, it is the context and setting that is different. The women's health specialist conducts examination with greater depth related to sex and gender issues (e.g., childbearing status, obstetric/gynecological status, hormonal/endocrine conditions, sexual abuse) and pelvic floor examinations, whereas the primary care specialists conducts examinations with an emphasis on multisystem assessment in the context of triage management and care coordination for patients presenting to an entry point primary care setting with a broad range of health conditions.</p>
<p>Evaluation (Primary Care DSP pg. 23, II.C.2)</p>	<p>There are multiple commonalities in evaluation function between a women's health and primary care clinical specialist. A difference is that the women's health clinical specialist functions with greater depth related to women's and men's health populations and great understanding and consideration of specific sex and gender issues, whereas the primary care specialist functions with a broad breadth of populations presenting to primary care settings with an emphasis on triage management as a first contact provider with ability to determine risk stratification (e.g., risk for chronicity of poor outcome, risk for delayed return to activity/work, suicide risk, depression) as it impacts referral management in a primary care setting.</p>
<p>Diagnosis (Primary Care DSP pg. 23, II.C.3)</p>	<p>The women's health specialist will function with greater depth in diagnostic function specific to gender and pelvic conditions (e.g., voiding disorders, pelvic floor dysfunction, disordered eating syndromes, prenatal/postpartum pain and dysfunction, impairments s/p gynecological surgery, etc.), whereas the primary care specialist demonstrates a broad scope of diagnostic function for patients presenting to an entry point primary care setting with an function across populations regardless of age or gender. Additionally, the primary care DSP places emphasis on diagnostic reasoning and ability to rapidly conduct differential diagnosis and triage of emergent versus non-emergent health conditions.</p>

<p>Prognosis Primary Care DSP pg. 24, II.C.4)</p>	<p>While there are multiple commonalities in prognostic function between a women's health and primary care clinical specialist, the women's health specialist will incorporate greater depth of knowledge related to sex and gender issues and associated impact on prognosis, whereas the primary care clinical specialist will apply prognostic function with an emphasis on how this impacts and guides triage and referral management in an entry point/primary care setting.</p>
<p>Interventions (Primary Care DSP pg. 24, II.C.5)</p>	<p>While there are many commonalities in intervention function between women's health and primary care specialists, the women's health specialist demonstrates greater depth in interventions specifically related to pelvic, sex and gender issues, whereas the primary care specialist must demonstrate greater breadth of intervention skill across populations presenting to primary care with an emphasis on focused/initiation of intervention and referrals in complex cases or cases requiring extensive follow-up not conducive to highly evaluative primary care model of care.</p>
<p>Outcomes (Primary Care DSP pg. 26, II.C.6)</p>	<p>While there are many commonalities in outcomes function between a women's health and primary clinical specialist. The difference is how outcomes are conceptualized and applied to specific populations and settings. The women's health clinical specialist applies this knowledge with greater depth related to women's and men's health populations and conditions, whereas the primary care specialist applies this knowledge to populations presenting to primary care settings with an emphasis on triage management and referral coordination (e.g., this may include an emphasis on outcomes related to risk stratification guiding referral management, whereas a women's health specialist may focus in greater depth related to outcomes assessing a greater depth of interventions applied).</p>
<p>Referral/Consultation (Primary Care DSP pg. 27, II.C.7)</p>	<p>While the women's health DSP includes identifying signs and symptoms indicating referral to a physician or other health care provider based on specialized knowledge of women's health, the primary care DSP includes greater emphasis on referral/consultation management including ability to collaborate and coordinate patient management throughout the continuum of care and throughout the lifespan for patients presenting to an entry point primary care setting. The PCPT is coordinating and 'quarterbacking' the multidisciplinary approach, providing high value referrals and continued engagement throughout the referral process.</p>

Wound Management:

Examination (History, Systems Review, Tests and Measures, Re-Examination) (Primary Care DSP pg. 20, II.C.1)	While there are multiple commonalities in examination function between an wound management specialist and primary care clinical specialist, the wound management specialist demonstrates greater depth in taking a history, systems review, tests/measures with a focus on information related to the integrity of the integumentary system. In contrast, the primary care specialist demonstrates greater breadth of examination across body systems and areas of practice. The PCPT demonstrates greater knowledge in the holistic evaluation and recognizing connections between the integumentary system and other medical conditions or treatments.
Evaluation (Primary Care DSP pg. 23, II.C.2)	Processes of evaluation are a standard of practice across all areas of physical therapy. There are multiple commonalities in evaluation function between a wound management and primary care clinical specialist. The wound management DSP includes greater depth related to the integumentary system, skin breakdown and wound issues; whereas the primary care DSP includes greater breadth across practice areas and body systems with an emphasis on advanced competency and efficiency in triage management as a first contact provider with ability to determine risk stratification (e.g., risk for chronicity of poor outcome, risk for delayed return to activity/work, suicide risk, depression) as it impacts referral management in a primary care setting.
Diagnosis (Primary Care DSP pg. 23, II.C.3)	Both the wound management and primary care DSP include the function and skill to organize data into recognized clusters or categories. The wound management specialist functions with greater depth of diagnostic skill related to the integumentary system and wound healing; whereas the primary care specialist functions with greater breadth of skill across practice areas/body systems. Additionally, the primary care DSP places emphasis on diagnostic reasoning and ability to rapidly conduct differential diagnosis and triage of emergent versus non-emergent health conditions.
Prognosis Primary Care DSP pg. 24, II.C.4)	The wound management specialist functions with greater depth of advanced prognostic skill related to the integumentary system and wound healing, whereas the primary care specialist functions with greater breadth of prognostic skills across practice areas and body systems, and across the lifespan through sustained patient relationships.
Interventions	While there are many commonalities in intervention function between wound management and primary care specialists,

<p>(Primary Care DSP pg. 24, II.C.5)</p>	<p>the wound management specialist must demonstrate greater depth in interventions specifically related to the integumentary system and wound care, whereas the primary care specialist must demonstrate greater breadth of intervention skill across the practice areas and body systems with an emphasis on focused/initiation of intervention and referrals in complex cases or cases requiring extensive follow-up not conducive to highly evaluative primary care model of care.</p>
<p>Outcomes (Primary Care DSP pg. 26, II.C.6)</p>	<p>While there are many commonalities in outcomes function between a wound management and primary clinical specialist, the wound management clinical specialist focuses on outcomes in greater depth related to the integumentary system and wound healing, whereas the primary care specialist includes greater breadth of measures and tools applicable across practice areas and body systems.</p>
<p>Referral/Consultation (Primary Care DSP pg. 27, II.C.7)</p>	<p>While the wound management DSP includes ability to refer to other professionals for findings that are outside the scope of therapists knowledge or experience, the primary care DSP includes greater emphasis on referral/consultation management including ability to collaborate and coordinate patient management throughout the continuum of care. The PCPT is coordinating and 'quarterbacking' the multidisciplinary approach, providing high value referrals and continued engagement throughout the referral process.</p>

CRITERIA #5. Education and Training

- 1) **Describe in detail the education, training and experience needed to acquire the skills required to perform the specialized functions detailed in criterion #4. Discuss in detail how such education, training, and experience differ from the education, training and experience required of a recent graduate from a professional physical therapy program.**

The education, training, and experience needed to acquire the skills necessary to perform the functions of a primary care specialist are obtained through extensive clinical experience (2,000 hours of direct patient care in the area of primary care PT over the past 10 years, at least 500 hours within the past 3 years), or through post-professional clinical residency training. Experience can be defined as knowledge or skill acquired over time. While the number of hours of care required for a physical therapist to be considered a specialist can be debated, 2,000 hours of direct patient care in the area of specialization has been the measure of clinical experience for the past 20 years. This number is consistent across clinical specialty areas. Clinical experience and residency training in the area of primary care PT includes collaborative work in a variety of settings (e.g., multidisciplinary primary care teams/clinics, rural health clinics, hospital systems, emergency department, home-based care, private outpatient clinics, and military settings). There is a varying level of which clinicians and residents may be integrated within the primary care team (e.g., stand-alone direct access clinics with collaborative relationships, co-located embedded and integrated primary care clinics). Clinicians and residents experience opportunities to manage a diverse caseload across multiple settings and specialty areas, with supplemental experiences and observations in other areas of practice (e.g., mental health, pharmacology, cardiopulmonary clinic, rheumatology, neurology, pediatrics, pelvic health, radiology). Advanced clinical training, experience and/or residency program prepares the primary care specialists to perform expert triage and management of conditions affecting physical function across all body systems while working in sync with the rest of the primary care team.

Training and experience beyond what is required for entry level practice is recommended in the following areas:

- Health systems literacy
 - Efficiently and effectively guide patients through the healthcare system to support them in reaching their functional goals
 - Ensure optimal stewardship of healthcare resources
- Population health: identify key health factors and contribute to sustainable systems that promote advancement in health equity and ultimately improve patient outcomes on an individual and societal level
- Advanced clinical reasoning and triage management
- Medical/body system/disease screening
- Complex care management and prioritization
- Diagnostic study referral appropriateness, interpretation, and coordination of appropriate referrals or follow-up (e.g. imaging, electrodiagnostics, blood laboratory tests)
- Application of behavioral science principles (e.g. motivational interviewing, pain science principles, etc.)
- Multidisciplinary team communication and fostering of professional relationships
- Health promotion and disease prevention principles (e.g. wellness coaching for sleep, diet, physical activity, mindfulness, chronic disease management)

- Pharmacologic impact on systems and physical function
- Focused intervention skills for initiation of care and referrals in complex cases:
 - Early intervention prioritization, particularly in cases with high irritability/severity of symptoms
 - Durable medical equipment (e.g. assistive devices, bracing, orthotics, compression devices)
 - Provide activity restrictions/guidelines for safe return to work
 - Education for effective self-care of acute inflammatory process including activity modification, graded exposure for return to prior level of function, edema management, and early therapeutic exercise)
 - Manual therapy (e.g., soft tissue mobilization, joint mobilization/manipulation, dry needling, joint drainage, manual lymphatic drainage, visceral therapy)
 - Vestibular and post-concussion rehabilitation (e.g., canalith repositioning maneuvers, gaze stabilization exercises)
 - Neurologic interventions including task specific neuromuscular re-education, proprioceptive training, gait, and balance training
 - Pelvic rehabilitation (e.g. lumbopelvic motor control training, breathing techniques, bladder diaries/training)
 - Airway clearance techniques including breathing strategies, manual/mechanical techniques, and positioning
 - Integumentary repair and protection strategies, basic wound management techniques
 - Prevention, wellness, and health promotion services (e.g., providing education on healthy lifestyle habits such as physical activity, weight management, nutritional strategies, sleep behavior, smoking/alcohol use, healthy relationships, stress management)

The advanced training and education of a primary care specialist is beyond that of which is included in an entry-level physical therapy program. The training of the primary specialist uniquely requires more in-depth experience across areas of practice with a heavy focus on examination and referral management (e.g., more training in triage and management of conditions not limited to the musculoskeletal system, such as pelvic health, cardiopulmonary conditions, rheumatologic and autoimmune, prevention and wellness, oncology, and so on) than that required of entry level clinicians. The unique training in triage and management of conditions affecting physical function and pain occurs outside of an episodic model of care with sustained patient relationships, and ideally in a team-based model. Training related to interventions occurs across a great breadth of practice areas, though with less depth of focus in each clinical area as compared to existing areas of specialty practice. Intervention training emphasizes focused and efficient initiation of care with early recognition for need for referrals (e.g., complex cases where expertise beyond the PCPT skill set is needed, or frequency/duration of visits is beyond what is conducive to the primary care setting). There is a strong focus on active interventions/self-management with emphasis on health promotion and disease prevention principles to assist in overall management of noncommunicable disease and lifespan care.

The following table provides detailed list of education, training and experience needing to acquire the skills to perform the specialized functions of primary care specialty practice:

Knowledge Area	Specialized Knowledge	PCPT Specialist vs. Entry level Knowledge	Advanced Training & Experience Needed
<p>Foundation Science</p>	<p>Human Anatomy & Physiology</p> <ul style="list-style-type: none"> • Cardiovascular & pulmonary <ul style="list-style-type: none"> • Musculoskeletal • Integumentary <ul style="list-style-type: none"> • Lymphatic • Immunology • Neurologic • Gastrointestinal <ul style="list-style-type: none"> • Vestibular • Endocrine <p>Movement Sciences</p> <ul style="list-style-type: none"> • Kinesiology/Biomechanics <ul style="list-style-type: none"> • Ergonomics • Locomotion • Motor Control & Learning <ul style="list-style-type: none"> • Effects of movement dysfunctions on multiple body systems • Interrelationship among social, cognitive, and movement systems <p>Exercise physiology</p> <ul style="list-style-type: none"> • Consideration for health conditions in exercise prescription • Adaptation of exercise interventions for safety and general health/wellness <p>Human growth & development across the lifespan</p> <ul style="list-style-type: none"> • Developmental biomechanics and lifespan changes • Physiology of aging • Muscle performance development and changes with aging • Mental function and changes with aging (e.g., screening for dementia) 	<p>A recent graduate identifies anatomy, basic physiological process and movement patterns in developing clinical hypotheses. A primary care specialist has greater depth of understanding regarding physiological processes and effectively and rapidly applies them in real time. The primary care therapist applies the foundation sciences to prevent or manage movement disorders across the lifespan including moderate to complex case management. In this role, the primary care therapist is often guiding the care team in the collaborative management of this patient across the continuum of care. While one would expect entry level clinicians to have baseline differential diagnosis</p>	<p>2,000 hours of direct patient care experience in the setting of primary care or through post-professional clinical residency training.</p> <p>Coursework should include (but not limited to) concepts related to the following:</p> <ul style="list-style-type: none"> • Advanced clinical reasoning and triage management • Medical / body system / disease screening • Multi-system focused intervention strategies (e.g. manual therapy such as mobilization / manipulation for acute and subacute MSK management, vestibular and post-concussive rehabilitation, focused neurologic interventions,

		<p>knowledge, the primary care specialist demonstrates increased efficiency, accuracy, and independence in case management across the lifespan and from simple to complex cases.</p>	<p>airway clearance and breathing techniques, integumentary repair and protection strategies)</p>
<p>Behavioral Science</p>	<p>Biopsychosocial model</p> <ul style="list-style-type: none"> ● Role of biopsychosocial model in primary care practice ● Relationship of pain to disability ● Influence of the PCPT's behavior on the patient's behavior and vice versa ● Fear avoidance behaviors and other negative strategies related to pain and loss of function <ul style="list-style-type: none"> ● Pain neuroscience education and other patient-centered behavioral pain approaches ● Appropriate referrals to other pain management healthcare providers <p>Communication theory</p> <ul style="list-style-type: none"> ● Communication and nonverbal language to meet the needs of patient/client ● Multidisciplinary medical team communication in the collaborative management and deliver of primary care services <p>Psychology/Psychiatry</p> <ul style="list-style-type: none"> ● Common psychiatric symptoms, syndromes, and classifications ● Effect of psychiatric disease and treatment on cognition, learning, and function <p>Occupational Health</p> <ul style="list-style-type: none"> ● Recognition of occupational and work-related diseases and injuries 	<p>At the specialist level, the primary care therapist consistently and efficiently recognizes behavioral health factors and integrates findings into patient communication and plan of care. Entry level physical therapists are exposed to basic behavioral science principles (e.g. pain neuroscience education, motivational interviewing, cognitive behavioral therapy, etc.). However, the primary care specialist is able to apply advanced knowledge and skill to effectively weave these techniques throughout care management to improve patient understanding and clinical outcomes. The primary care</p>	<p>2,000 hours of direct patient care experience in the setting of primary care or through post-professional clinical residency training.</p> <p>Coursework should include (but not limited to) concepts related to the following:</p> <ul style="list-style-type: none"> ● Application of behavioral science principles (e.g. motivational interviewing, pain science principles, etc.) ● Recognition and referral for psychological health conditions ● Health promotion and disease prevention principles (e.g. wellness coaching for sleep, diet, physical activity,

	<ul style="list-style-type: none"> ● Support return-to-work, preserve, and restore working capacity <p>Health Promotion & Disease Prevention</p> <ul style="list-style-type: none"> ● Behavior change, stages of change and readiness of change ● Theories and practice of behavior change for clinical practice ● Impact of health behaviors on general health, disease risk, and prognosis for specific conditions across the lifespan ● Impact of health behaviors on general health, disease risk, and prognosis for specific conditions across the lifespan <ul style="list-style-type: none"> ● Sleep science ● Exercise for wellness recommendations ● Recommendations on nutritional needs across the lifespan ● Nutrition impact on chronic disease <p>Sociology/Cultural Competence</p> <ul style="list-style-type: none"> ● Cultural competence and sensitivity ● Teaching & Learning Theory 	<p>specialist utilizes advanced knowledge to collaborate with and guide with the work of the multidisciplinary care team to ensure a consistent and collaborative approach that optimizes care. The specialist is able to rapidly identify and appropriately refer for definitive care related to behavioral health. The primary care specialist promotes and provides holistic health care by providing comprehensive wellness coaching (e.g. sleep, diet, physical activity, mindfulness, chronic disease management, etc.) across the lifespan through sustained patient partnerships and outside of an episodic model of care.</p>	<p>mindfulness, chronic disease management)</p> <ul style="list-style-type: none"> ● Multidisciplinary team communication and fostering of professional relationships
<p>Clinical Science</p>	<p>Pathology</p> <ul style="list-style-type: none"> ● Immunology ● Pathokinesiology ● Signs and symptoms of disease/injury ● Disease/injury process and progression ● Tissue inflammation, health, response to exercise, and repair 	<p>While an entry level physical therapist will have basic didactic knowledge regarding disease screening and diagnostic studies, the primary care specialist</p>	<p>2,000 hours of direct patient care experience in the setting of primary care or through post-professional clinical residency training.</p>

	<ul style="list-style-type: none"> • Complications and considerations specific to bariatric medicine and obesity Pain Science • Central nervous system pain physiology • Peripheral nociceptive pain physiology • Peripheral neuropathic pain physiology • Output mechanisms and expressions <p>Emergency/Trauma Medicine</p> <ul style="list-style-type: none"> • Triage of acute neurologic and musculoskeletal conditions presenting to emergency/trauma departments • Early identification of yellow/red flags • Falls risk and safety assessments • Educational subject matter expert for acute neurologic and musculoskeletal conditions <ul style="list-style-type: none"> • Referral for further intervention (e.g. including referral to other specialty care, medical work-up, imaging, social work, further PT services as necessary) • Discharge planning <p>Medical/Surgical Considerations</p> <ul style="list-style-type: none"> • Medical screening • Imaging Studies (appropriateness for ordering imaging, integrating results with clinical exam data) • Laboratory Science (screening of lab values, integrating results with clinical exam data) • Diagnostic tests and measures (e.g. EKG, electrophysiological exams) <ul style="list-style-type: none"> • Pharmacology (pharmacokinetics and pharmacodynamics, pharmacological treatment of co-morbidities and common conditions, drug interaction and polypharmacy, evidence 	<p>possesses advanced competence and skill to efficiently recognize the need for referral or additional diagnostics and to interpret and effectively integrate results into the overall management of moderate to complex cases. The specialist will appreciate the relevance and impact on overall prognosis when taking patient pathology into consideration. The specialist has advanced knowledge and recognition of the impact of pharmacodynamics and polypharmacy on overall client management; they routinely incorporate education on these impacts and empower the client with the knowledge for self-advocacy. Additionally, the primary care specialist educates and advocates across health care teams to reduce overutilization of pharmacology, imaging, and other diagnostic studies. They have the</p>	<p>Coursework should include (but not limited to) concepts related to the following:</p> <ul style="list-style-type: none"> • Diagnostic study referral appropriateness and interpretation • Pharmacologic impact on systems and physical function • Foundations in Population Health • Early intervention strategies for acute/trauma medicine (e.g. DME/bracing, education on effective self-care of acute inflammatory process including activity modification, graded exposure for return to prior level of function, edema management, and early therapeutic exercise, safe return to work / play guidance • Health systems literacy
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	<p>and education in regards to supplements)</p> <ul style="list-style-type: none"> • Non-surgical medical interventions and implications for patient management • Surgical and invasive interventions and implications for patient management <p>Population Health & Epidemiology</p> <ul style="list-style-type: none"> • Epidemiology of chronic disease • Recognition of hallmark signs of chronic disease process and ability to make appropriate referral/consultations <p>Practice Considerations</p> <ul style="list-style-type: none"> • Systems-Based Practice • Principles of physical therapy evaluation and treatment of patients across system and the lifespan • Provision of advanced care across the lifespan • Models of differential diagnosis and clinical reasoning such as hypothesis-oriented algorithm for clinicians (HOAC) model or the prospect theory • Collaboration and coordination throughout the continuum of care 	<p>ability to apply advanced pattern recognition to facilitate accurate and efficient disease screening and referrals. Additionally, they have advanced knowledge in the area of population health combined with ability to recognize hallmark signs of chronic disease and efficiently make appropriate referrals within the healthcare team. Identifying and triaging these elements facilitates efficient and effective care in coordinating with the other appropriate team members.</p>	
<p>Critical Inquiry</p>	<p>Critical appraisal and application of research findings in Primary Care Physical Therapy</p>	<p>Both the entry level clinicians and specialists will demonstrate ability to critically appraise research and apply findings to practice. The difference with the clinician practicing at the primary care specialist level is in the ability to integrate clinical expertise with the available evidence facilitating expert</p>	<p>2,000 hours of direct patient care experience in the setting of primary care or through post-professional clinical residency training integrating research findings into practice in the setting of primary care.</p>

		application to client management.	
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2) If there are other certifications within this area of specialization currently available, please document these certifications (including eligibility requirements), the number of individuals with these certifications, and the number acquiring the certification over the past 3 years.

Certification	Eligibility Requirements	Number with this certification	Number acquiring certification over past 3 years
University of St. Augustine: Primary Care Certification: <u>Specialty Certifications - University of St. Augustine for Health Sciences (usa.edu)</u>	To earn certification, a therapist attends a series of seminars totaling 14-21 days, culminating in a comprehensive online review and 3-4 day face-to-face examination process. Certification is a three-day in-person experience consisting of an opportunity to ask questions and receive feedback. On the fourth day, a written exam is given followed by a series of oral and practical examinations.	12	12
<u>University of Alabama Birmingham Graduate Certificate in Primary Care Physical Therapy for Underserved Populations</u>	Must be a licensed physical therapist (or similarly credentialed in another country) or a student in good standing at a CAPTE accredited DPT program. Therapists need to complete 15 credit hours to earn this certificate.	5 currently enrolled (new program in 2023)	0
Musculoskeletal Imaging Certifications: <u>Imaging Certs Redefine Health Ed</u>	Complete 9 2-hr modules (18 contact hours) via live webinar or online self-study. This certification begins by covering the fundamental science of various imaging modalities, provides clinical practice considerations for head-to-toe body regions, and concludes with a case-based module on 'Clinical Response to	32 completed (37 currently enrolled as of 10/4/2023)	32

	<p>Imaging Findings'. Individuals who complete all 9 modules will receive the Musculoskeletal Imaging Certification. Participants can also take each module on an individual basis, without working toward the full certification.</p>		
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3) Provide a complete listing of recognized education and training programs, and include the following information:

- **The sponsoring organizations or institutions, locations, and instructors.**
- **The nature of such programs including their length, content, and objectives.**
- **Describe what is the expected outcome of the programs documented above, and how this is assessed.**

PCPTs should pursue advanced training education in the areas of:

- Medical/disease screening (e.g. systems screening, fracture screening, psychosocial screening, neuromuscular screening, etc.)
- Differential diagnosis
- Imaging and other diagnostic studies (e.g. electrodiagnostics, blood laboratory tests) referral appropriateness
- Clinical decision making and triage
- Essentials in pharmacology
- Population health and epidemiology
- Health promotion and disease prevention principles
- Cardiovascular considerations in PT
- Interdisciplinary collaboration and communication

In addition to education and training specific to primary care physical therapy noted above, it is recommended that physical therapists practicing in primary care should complete an assessment of their clinical knowledge and skills, and supplement training across body systems and areas of practice to support ability to complete examination and effectively initiate treatment and determine referral appropriateness in the primary care setting (e.g. additional training may be indicated in the areas of pelvic health, vestibular rehab, neurologic rehab, cardiopulmonary rehab, managing persistent pain, etc.).

The following is a list of educational programs designed specifically to increase knowledge in the specialty area of primary care physical therapy. The course descriptions are taken from program web sites and/or brochures. This is a sampling of courses and does not attempt to identify every course available on the topic of primary care physical therapy. Listing of these programs does not imply endorsement by the petitioner.

Course/Sponsoring Organization, location, and length	Speakers	Objectives
<p><u>Primary Care PT, ICE (The Institute of Clinical Excellence)</u></p> <p>(Online)</p> <p>8 weeks (1-2 video labs weekly, live online meetings bi-weekly)</p>	<p>Dr. Morgan Denny, PT, DPT; Dr. Eric Chaconas, PT, DPT, PhD, OCS, FAAOMPT</p>	<ol style="list-style-type: none"> 1. Gain an understanding of common medical conditions, including comorbidities, and how they can affect patient care, as well as change the clinician's priorities and treatment strategies. 2. Gain an understanding of screening tools and tests for each system; learn how to perform them for different body types. 3. Learn further screening and assessment tools in order to increase or decrease likelihood of clinical hypotheses. 4. Gain an increased understanding of systemic and preventable medical conditions, appropriate evaluative techniques, and what role physical therapists can play in prevention and education of these diseases. 5. Gain additional information regarding each system which is addressed in this course in order to understand relationships between each and how they can affect therapeutic treatment, safety of treatment, and healing times. 6. Learn further evaluative questions and patterns of disease in order to more effectively and efficiently refer patients

		<p>to another provider when appropriate.</p> <p>7. Learn further evaluative questions and patterns of disease in order to more effectively and efficiently refer patients to another provider when appropriate.</p>
<p><u>Essentials of Medical Screening in Physical Therapy Practice (Evidence in Motion)</u></p> <p>(Online)</p> <p>25 hours(6 weeks online)</p>	EIM Faculty	<ol style="list-style-type: none"> 1. Utilize a medical screening form to guide a review of systems across the life span. 2. Recognize red flags for potentially serious conditions not amenable to treatment by a physical therapist or that require referral to other providers. 3. Recognize potentially serious conditions that can mimic musculoskeletal conditions. 4. Recognize yellow flags: such as depression or fear avoidance and incorporate these findings into clinical decision-making. 5. Communicate effectively with referring providers regarding signs/symptoms suggestive of non-musculoskeletal disorders or conditions potentially needing referral or consultation with medical providers. 6. Demonstrate clinical decision making skills, including clinical reasoning, clinical judgment, and reflective practice.
<p><u>Cardiovascular Considerations in PT •</u></p>	EIM Faculty	<ol style="list-style-type: none"> 1. Obtain an improved understanding of the

<p><u>Courses by EIM Evidence In Motion</u></p> <p>(Online)</p> <p>4 hours</p>		<p>prevalence of common cardiovascular diagnoses encountered in neuro-musculoskeletal practice.</p> <ol style="list-style-type: none"> 2. Obtain an improved ability to distinguish between frequently encountered cardiovascular disorders which may mimic commonly encountered neuro-musculoskeletal diagnoses. 3. Develop an improved understanding of effective clinical tests and measures that can be utilized to screen for and differentially diagnose frequently encountered cardiovascular disorders. 4. Achieve improved confidence on when to appropriately refer to other allied health professionals for timely medical management of frequently encountered cardiovascular disorders.
<p><u>Essentials of Pharmacology</u> <u>• Courses by EIM Evidence In Motion</u></p> <p>(Online)</p> <p>15 hours</p>	<p>EIM Faculty</p>	<ol style="list-style-type: none"> 1. Reflect on why pharmacology is relevant to physical therapy practice. 2. Define pharmacokinetics, pharmacodynamics, pharmacogenomics, liberation, absorption, distribution, metabolism, excretion. 3. Describe the mechanism of action for the following: acetaminophen,

		<p>nonsteroidal anti-inflammatories, topical analgesics, anticonvulsants, antidepressants, and opioid analgesics.</p> <ol style="list-style-type: none">4. Discuss drug interactions, dosing, and therapy considerations of the following: acetaminophen, nonsteroidal anti-inflammatories, topical analgesics, anticonvulsants, antidepressants, and opioid analgesics.5. Describe the mechanism of action for Beta Blockers, Beta Agonists, Alpha Agonists, Alpha Antagonists, Alpha-Beta Agonists for Beta Blockers, Angiotensin Converting Enzyme Inhibitors, Angiotensin II Blockers, Diuretics, Vasodilators, Calcium Channel Blockers, Antiarrhythmics, Anticoagulants, Statins6. Discuss drug interactions, dosing, and therapy considerations of the following: Beta Blockers, Beta Agonists, Alpha Agonists, Alpha Antagonists, Alpha-Beta Agonists for Beta Blockers, Angiotensin Converting Enzyme Inhibitors, Angiotensin II Blockers, Diuretics, Vasodilators, Calcium Channel Blockers, Antiarrhythmics, Anticoagulants, Statins7. Describe the mechanism of action for
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		<p>skeletal muscle relaxants, benzodiazepines, hypnotics, cholinergic medications, dopaminergic medications, and cannabinoids</p> <p>8. Discuss drug interactions, dosing, and therapy considerations of the following: skeletal muscle relaxants, benzodiazepines, hypnotics, cholinergic medications, dopaminergic medications, and cannabinoids</p> <p>9. Describe the mechanism of action for skeletal muscle relaxants, benzodiazepines, hypnotics, cholinergic medications, dopaminergic medications, and cannabinoids</p> <p>10. Discuss drug interactions, dosing, and therapy considerations of the following: skeletal muscle relaxants, benzodiazepines, hypnotics, cholinergic medications, dopaminergic medications, and cannabinoids</p> <p>11. Identify factors that may impact a physical therapist plan of care by evaluating a patient's medication profile.</p>
<p><u>Introduction to Lifestyle Medicine • Courses by EIM Evidence In Motion</u></p>	<p>EIM Faculty</p>	<p>1. Recall the current state of health in our culture and why implementation</p>

<p>(Online) 7 hours</p>		<p>of Lifestyle Medicine (LM) is needed.</p> <ol style="list-style-type: none"> 2. List the impact of lifestyle behaviors on health and performance in any environment. 3. Interpret scientific evidence that demonstrates the association of risk conditions as being key factors for health outcomes. 4. Distinguish the role of behavioral determinants of positive health outcomes. 5. Compare and contrast LM to other fields of health and wellness. 6. List the pillars and core competencies of LM. 7. Describe the Travis Illness Wellness continuum. 8. Recall how the process of health through LM complements PNE+. 9. Define the role of positive psychology and its use in LM.
<p><u>Promoting Health and the Human Experience • Courses by EIM Evidence In Motion</u></p> <p>(Online) 44 hours</p>	<p>EIM Faculty</p>	<ol style="list-style-type: none"> 1. Understand and describe the mechanism and impact of common Lifestyle Related Diseases (RLD) on health including diabetes, coronary artery disease, CVA, metabolic syndrome, blood pressure/lipids 2. Cite scientific evidence of Social Determinants of Health, Physical Determinants of Health, and Social Determinants of Mental Health and their impact on

		<p>individual and societal health</p> <ol style="list-style-type: none"> 3. Participate in Travis Wellness Index personal health assessment 4. Identify key concepts of sleep and the implication on LRDs and persistent pain 5. Describe the impact of relationships, stress, and pain experiences on the neuro-endocrine-immune systems 6. List and describe the key elements of the coaching process 7. Cite scientific evidence supporting the importance of Therapeutic Alliance for building client relationships 8. Explain the role of clinician burnout on the client and the clinician 9. Describe the important elements of self-care as clinicians 10. Understand the role of inflammation with pain, LRD, and systemic influences
<p><u>Wellness and Health Promotion for the Older Adult • Courses by EIM Evidence In Motion</u></p> <p>(Online)</p> <p>6 hours</p>	<p>EIM Faculty</p>	<ol style="list-style-type: none"> 1. Discuss evidence-based theories of behavior change in older adults 2. Demonstrate clinical behaviors that optimize adherence to exercise and/or healthy lifestyle choices 3. Discuss specific barriers and facilitators to health promotion and illness prevention in older adult 4. Differentiate strategies at multiple levels with their older adult patients to promote aging in

		<p>place to allow the older adult to live as independently, and as safely, as possible</p> <ol style="list-style-type: none"> 5. Determine a specific, patient-focused wellness program for a case scenario that can be used as a template and adapted for other patients within their clinical practice 6. Discuss how society's views on aging impact health and wellness of the older adult population including access to services, referral to healthcare providers, self-image
<p><u>Evidence Based Primary Care Screening Series: Foundations, Part 1, Part 2 (AdvantageCEUs.com)</u></p> <p>(Online)</p> <p>6 hours</p>	<p>David J. Magee, PhD, BPT</p>	<ol style="list-style-type: none"> 1. Differentiate between the levels of healthcare and why Therapy Professionals should be considered Primary Care Providers 2. Recognize common rationale for Medical Screening 3. Identify the Levels of Evidence for Evidence Based Medical Screening 4. Differentiate between types of Medical Screening 5. Recognize types of diagnostic evaluation models 6. Identify the Red Flag Hierarchy 7. Recognize general red flags important for Therapy Professionals as Primary Care Providers 8. Recognize a thorough interview including Medical History, Intake

		<p>Interview, Red Flags, Pain Assessment Tools, Psycho-Social Cues and the Core Interview</p> <ol style="list-style-type: none"> 9. Differentiate between Concepts in Communication during the evaluation 10. Recognize the SINSS and how it is important to Evidence Based Medical Screening
<p><u>Emergency Sports and Primary Care Assessment</u> (AdvantageCEUs.com)</p> <p>(Online)</p> <p>6 hours</p>	<p>David J. Magee, PhD, BPT</p>	<ol style="list-style-type: none"> 1. Distinguish between primary care, secondary care, tertiary care, direct access, medical screening, screening for referral and signed prescription. 2. Recall 5 reasons to conduct a medical screening 3. Cite the difference between a medical diagnosis vs. a physical therapy diagnosis 4. Enumerate 5 components for effective communication during the patient interview 5. Describe 3 interviewing techniques during the examination.
<p><u>Foundations of Primary Care for the Physical Therapist</u> (AdvantageCEUs.com)</p> <p>(Online)</p> <p>2 hours</p>	<p>David J. Magee, PhD, BPT</p>	<ol style="list-style-type: none"> 1. Distinguish between primary care, secondary care, tertiary care, direct access, medical screening, screening for referral and signed prescription. 2. Recall 5 reasons to conduct a medical screening 3. Cite the difference between a medical diagnosis vs. a physical therapy diagnosis

		<ol style="list-style-type: none"> 4. Enumerate 5 components for effective communication during the patient interview 5. Describe 3 interviewing techniques during the examination.
<p><u>29.3E - Screening for Orthopaedics - Academy of Orthopaedic Physical Therapy (AOPT) (orthopt.org)</u></p> <p>AOPT Online with option to purchase print version</p> <p>15 hours</p>	<p>John Heick, PT, DPT, PhD, OCS, NCS, SCS; Seth Peterson, PT, DPT, OCS, FAAOMPT; Tarang Jain, PT, DPT, PhD</p>	<ol style="list-style-type: none"> 1. Discuss the significance of direct access legislation and how this influences differential diagnosis content and understanding. 2. Identify the important factors to screen for in a review of systems. 3. Discuss the pros and cons of using red flags for identifying systemic conditions. . 4. Explain the use of VINDICATE to facilitate a thorough history-taking during a patient examination. 5. Differentiate between the signs and symptoms underlying systemic causes of shoulder dysfunction and orthopaedic causes. 6. Differentiate between the signs and symptoms underlying systemic causes of elbow, forearm, and wrist dysfunction and orthopaedic causes. 7. Differentiate between the signs and symptoms underlying systemic causes of hip dysfunction and orthopaedic causes. 8. Differentiate between the signs and symptoms underlying systemic causes of knee, ankle,

		<p>and foot dysfunction and orthopaedic causes.</p> <ol style="list-style-type: none"> 9. Recognize clinical patterns associated with orthopaedic conditions in the upper and lower extremity and when to refer to another health care professional. 10. Recognize the usefulness of the mnemonic VINDICATE and how this applies to screening of the upper extremity and lower extremity.
<p><u>American Physical Therapy Association: Direct Ordering of Diagnostic Imaging by Physical Therapists: Updates from the Field (apta.org)</u></p> <p>Online APTA Learning Center</p> <p>2 hours</p>	<p>Aaron Keil, PT, DPT, OCS</p>	<ol style="list-style-type: none"> 1. Develop an effective plan to secure administrative approval to secure imaging privileges for physical therapists. 2. Cite appropriate research that supports granting physical therapists privileges to order imaging studies directly. 3. Describe the impact diagnostic imaging can have on clinical decision making when ordered appropriately. 4. Effectively prepare to answer common questions and concerns over granting therapists diagnostic imaging privileges
<p><u>Foundations for the Primary Care PT: A Hands-On Workshop (Redefine Health Education)</u></p> <p>In person or online</p> <p>In person (18hrs) / Online (14hrs)</p>	<p>Katie O'Bright, PT, DPT, OCS</p>	<p><u>Link to objectives</u></p> <p>Outline:</p> <ol style="list-style-type: none"> 1. Define and understand Primary Care models 2. Intake & Subjective 3. Clinical Decision Making Framework 4. Lab Values 5. Body Region Overview

		<ol style="list-style-type: none"> 6. Interdisciplinary collaboration & communication 7. Systems Review 8. Systems Screening 9. Lifestyle Medicine
<p><u>American Physical Therapy Association: Bridging the Gap: Embedding Physical Therapists in Primary Care (apta.org)</u></p> <p>Online APTA Learning Center</p> <p>1 hour</p>	<p>Chris Rowedder, DPT & Brandon Peterson, DPT, ATC</p>	<ol style="list-style-type: none"> 1. Understand the gap that exists in musculoskeletal healthcare 2. Describe what the Primary Care physical therapy model is 3. Explain the benefits of having PTs in Primary Care 4. Recognize the challenges PTs will face in Primary Care 5. Learn which PTs may be the best fit for Primary Care 6. Review training recommendations for those interested in Primary Care
<p>The Physical Therapist as a Primary Care Provider for Patients with Low Back Pain</p> <p>Online APTA Learning Center</p> <p>2 hours</p>	<p>Ian Stephens PT, DPT, OCS & Christine Schulte, PT, MBA & Sandra Passek, PT, DPT</p>	<ol style="list-style-type: none"> 1. Apply strategies to evaluate, initiate, and implement a direct access physical therapy program in a large health system. 2. Identify whether your organizational policies are conducive to physical therapist practice in a direct access setting. 3. Demonstrate understanding of screening tools used to identify patients who may require further physical therapy after assessment in a primary care setting. 4. Demonstrate understanding of

		physical therapy treatment interventions and application via case-based learning.
<p><u>American Physical Therapy Association: Screening for Fractures: Diagnostic Imaging and Beyond (apta.org)</u></p> <p>Online APTA Learning Center</p> <p>4 hours</p>	<p>William Boissonnault, PT, DPT, DHSc, FAPTA</p>	<ol style="list-style-type: none"> 1. Compare and contrast traumatic, pathologic and bony stress reaction injuries including patient risk factors, symptom characteristics, and physical examination and diagnostic imaging findings. 2. Recognize patterns of patient examination red flag findings associated with fracture risk that lead to a patient referral. 3. Effectively initiate a patient referral for diagnostic imaging 4. Describe the strengths and limitations of commonly used imaging modalities; plain films, CT scan, MRI and bone scan. 5. Describe the guidelines for appropriate utilization of plain films for patients post-trauma to the knee, ankle/foot and cervical spine regions, and for patients with low back pain. 6. Utilize history and physical examination findings to screen for post-fracture complications including DVT, PE, infection, neurovascular compromise, and mal-union/delayed union/non-union. 7. Effectively pursue additional information associated with

		differential diagnosis by the physical therapist.
<p><u>American Physical Therapy Association: Developing Rapport with Primary Care Staff & Strategies to Increase Clinic Referrals to Primary Care PT (apta.org)</u></p> <p>Online APTA Learning Center</p> <p>1 hour</p>	<p>Brandon Peterson, PT, DPT</p>	<ol style="list-style-type: none"> 1. Analyze the most common communication options in Primary Care. 2. Share examples of a musculoskeletal review class that can be shared with Primary Care staff. 3. Discuss the benefits of discussing injuries with staff in Primary Care. 4. Highlight the benefits of Primary Care staff/students observing the PT in Primary Care. 5. Provide example handouts that may be used in Primary Care to build rapport with staff. 6. Discuss beneficial Primary Care meetings for the PT to attend. 7. Highlight ten strategies to increase Primary Care caseload. 8. Review the importance of issuing durable medical equipment (DME) in Primary Care. 9. Review sample case scenarios highlighting strategies to build rapport with staff.
<p><u>American Physical Therapy Association: Managing the Pace of Primary Care Physical Therapy - A Comprehensive Overview of Recommendations and Strategies for Success (apta.org)</u></p> <p>Online APTA Learning Center</p> <p>1 hour</p>	<p>Brandon Peterson, PT, DPT</p>	<ol style="list-style-type: none"> 1. Understand how Primary Care physical therapy pace is unique 2. Learn the daily challenges unique to a Primary Care physical therapist 3. Learn strategies to set-up for success each day in Primary Care. 4. Review effective documentation strategies in Primary Care.

		<ol style="list-style-type: none"> Review common pitfalls noted with Primary Care physical therapy programs.
<p><u>American Physical Therapy Association: Neuromusculoskeletal Screening for the Cervical Region and Other Medical Considerations (apta.org)</u></p> <p>Online APTA Learning Center</p> <p>1 hour</p>	<p>Christopher Ryer, PT, DPT, OCS</p>	<ol style="list-style-type: none"> This course provides an overview of neuromusculoskeletal screening for the cervical region by Physical Therapists in Primary Care. Content includes differentiation of normal vs abnormal findings, examination techniques, key differentials, and provides case studies to encourage application of learning. Neck pain population – 15 min Upper Extremity Neurologic Screening – 5 min Pathologic reflexes - 10 min Cervical Arterial Dysfunction Screening, case study – 20 min Differentials discussion and Cervical instability screening – 35 min Case example – 10 min Conclusion and references – 2 min
<p><u>American Physical Therapy Association: Persistent Pain in the Direct Access Setting (apta.org)</u></p> <p>Online APTA Learning Center</p> <p>1 hour</p>	<p>Molly Lahn, PT, DPT, PhD; Derek Haugen, PT, DPT, OCS; Sydney Swenson, PT, DPT, OCS; Ruth Chase, OT</p>	<ol style="list-style-type: none"> Persistent pain is quite prevalent, affecting one out of every five Americans according to recent CDC data. Physical therapists practicing in primary care or direct access settings will doubtless encounter patients who have persistent pain conditions. These

		<p>cases can be complex and challenging to navigate. The goal for this presentation is to give clinicians to work in primary care or direct access settings are helpful framework from which to understand persistent pain and how to effectively address it in the clinic.</p>
<p><u>American Physical Therapy Association: Primary Care and Physical Therapist Practice: Patient Triage and Screening for Skin Cancer (apta.org)</u></p> <p>Online APTA Learning Center</p> <p>1 hour</p>	<p>William Boissonnault, PT, DPT, DHSc, FAAOMPT, FAPTA</p>	<ol style="list-style-type: none"> 1. Define and describe patient triage and medical screening as related to physical therapist practice in a primary care model 2. Differentiate the roles and responsibilities of physicians and physical therapists in terms of differential diagnosis and medical screening 3. Apply medical screening principles to the screening of patients for skin cancer
<p><u>American Physical Therapy Association: Pharmacology Overview - Clinical Pearls for the PT (apta.org)</u></p> <p>Online APTA Learning Center</p> <p>2 hours</p>	<p>Christy Gantt, PT, DPT</p>	<ol style="list-style-type: none"> 1. Overview of pharmacologic principles, general drug classes, and considerations within PT scope of practice and patient interactions.
<p><u>American Physical Therapy Association: Applying Clinical Practice Guidelines to Guide Treatment of Lower Back Pain in Primary Care (apta.org)</u></p> <p>Online APTA Learning Center</p>	<p>Brandon Peterson, PT, DPT</p>	<ol style="list-style-type: none"> 1. Review lower back pain prevalence 2. Review CPGs from 2012 3. Review CPGs from 2021 4. Review JOSPT recommendations for treatment

1 hour		5. Apply the CPG guidelines to Primary Care PT
<u>Differential Diagnosis & Medical Screening Certificate Program Library MedBridge</u> Medbridge Online 16 hours	Michael Fink PT, DSc, SCS, OCS	<ol style="list-style-type: none"> 1. Recognize hallmark signs and symptoms of serious musculoskeletal and non-musculoskeletal pathology. 2. Identify common non-musculoskeletal pathology through a review of the body's systems. 3. Identify common musculoskeletal and non-musculoskeletal pathology in the body's musculoskeletal system. 4. Form clear clinical pictures when systemic, orthopedic, and neurologic illness and injuries overlap. 5. Understand the importance of sensitivity, specificity, and likelihood ratios in regards to diagnostic tests/CPRs. 6. Confidently determine when to treat, refer to other healthcare providers, or 'treat and refer'. 7. Enhance your clinical decision making skills, including clinical reasoning and clinical judgment.
<u>Primary Care PT (Movement Brainery)</u> Hybrid Online - self-study + weekly discussion meetings x 8 weeks 20 hours	Seth Peterson, PT, DPT, OCS, FAAOMPT; John Heick, PT, DPT, PhD, NCS, SCS, OCS	See website for objectives. Learning Plan: <ol style="list-style-type: none"> 1. What is primary care PT? 2. Diagnostic thinking 3. Cardiopulmonary 4. Neurological 5. Autoimmune

		6. Trauma/concussion 7. Endocrine/metabolic 8. Neoplasm *other topics (fracture, mental health, and others)
<u>MSK Ultrasound Courses for Clinicians CME Accredited (amsku.com)</u> Online or in-person Variable hours	Dr. Pradeep Albert MD; Colin Rigney, PT, DPT, OCS, RMSK; Ryan Martin, PT, DPT, RMSK; Wayne Smith, PT, DPT, SCS, RMSK, ATCr	See website for objectives.
<u>Primary Physical Health PT Model of Care (redefinehealthed.com)</u> Online 1 hour	Katie O'Bright, PT, DPT, OCS	<ol style="list-style-type: none"> 1. Understand the concept of a primary physical health model of care. 2. Understand the physical therapist's role and scope of practice within this model. 3. Understand what constitutes an evidence-informed baseline well visit for adults. 4. Understand how patients are managed within this model; obtain a basic understanding of payment models.
<u>Vestibular Practice in the Emergency Department - The ED DPT</u> Pikes Peak Community College, Colorado 75 minutes	Rebekah Griffith, PT, DPT, NCS, OMPT FiT; Helena Esmonde, PT, DPT, NCS	<ol style="list-style-type: none"> 1. Describe the epidemiology and medical assessment for non-vestibular dizziness in a typical emergency department. 2. Recognize efficient examination components for differential diagnosis in patients with possible vestibular pathology as the root cause of dizziness presenting to the emergency department. 3. Identify evidence-based vestibular treatment and

		<p>patient education strategies suited to the emergency department and acute care settings.</p> <p>4. Characterize a multidisciplinary approach to medical team collaboration and education along with proper referral patterns for post-emergency department patient care for patients with vestibular dizziness.</p>
<p><u>Early Management of Concussions with Vestibular Consideration (The ED DPT)</u></p> <p>Online</p> <p>75 minutes</p>	<p>Rebekah Griffith, PT, DPT, NCS, OMPT FIT</p>	<ol style="list-style-type: none"> 1. Understanding of mild TBI 2. Strategies for differential diagnosis 3. Understanding of post-concussive syndrome 4. When to refer 5. Understanding of appropriate post-injury education 6.
<p>Blood Laboratory Tests in Physical Therapy: Demystified & Applied</p> <p>Online (www.APTAFederal.org)</p> <p>1.5 hours</p>	<p>Todd Davenport, PT, DPT, MPH, OCS</p>	<ol style="list-style-type: none"> 1. Discuss the relevance and sources of electrolytes 2. Identify abnormalities in levels of sodium, potassium, chloride, magnesium, calcium, phosphate, and bicarbonates. 3. Describe clinical syndromes associated with electrolyte abnormalities. 4. Discuss laboratory markers of acid-base balance. 5. Distinguish between respiratory and metabolic causes of pH abnormality using lab values. 6. Describe the interpretation of

		<p>common measurements of blood components with relevance to oxygen carrying capacity in blood.</p> <ol style="list-style-type: none"> 7. Describe the role of cardiac enzyme lab tests to determine the presence of myocardial damage. 8. Identify abnormal lab values for troponin and creatine kinase-MB isoform. 9. Interpret the results for renal function tests.
<p>Recognition of and Referral for Psychological Health Conditions in PT: What Clinicians should know</p> <p>Online (www.APTAFederal.org)</p> <p>1.5 hours</p>	<p>Kristin Bonning, PT, DPT</p>	<ol style="list-style-type: none"> 1. Describe the role of physical therapists in psychodiagnosis. 2. Identify the appropriate referral dispositions for selected psychosocial conditions and issues. 3. Utilize appropriate screening tools in physical therapy and/or primary care settings for mental health disorders.
<p>Direct Referral for Diagnosis Imaging in Physical Therapist Practice</p> <p>Online (www.APTAFederal.org)</p> <p>1.5 hours</p>	<p>Aaron Keil, PT, DPT</p>	<ol style="list-style-type: none"> 1. Develop an effective plan to secure administrative approval to secure imaging privileges for physical therapists. 2. Cite appropriate research that supports granting physical therapists' privileges to order imaging studies directly. 3. Describe the impact diagnostic imaging can have on clinical decision making when ordered appropriately. 4. Effectively prepare to answer common

		<p>questions and concerns over granting therapists diagnostic imaging privileges.</p>
<p><u>American Physical Therapy Association: VETERANS ADMINISTRATION - Vestibular Examination: in the Primary Care Setting (apta.org)</u></p> <p>Online APTA Learning Center</p> <p>1 hour</p>	<p>Samuel Metras, DPT</p>	<ol style="list-style-type: none"> 1. Provide a framework to perform a vestibular exam and utilize high level clinic decision making to treat, treat and refer, or refer in a primary care setting.
<p><u>American Physical Therapy Association: VETERANS ADMINISTRATION - Population Health for Primary Care Physical Therapy (apta.org)</u></p> <p>Online APTA Learning Center</p> <p>1 hour</p>	<p>Ashley Cassel, PT, DPT, OCS; Molly Lahn, PT, DPT, PhD., Megan Daman MAN, APRN</p>	<ol style="list-style-type: none"> 1. Recognize the influence of population health for PT in the primary care setting, especially for chronic disease. 2. Identify the 4 major elements of population health. 3. Recognize how the primary care PT can contribute to all 4 elements of population health. 4. Understand how the environment can directly and indirectly influence biology and health outcomes.
<p><u>American Physical Therapy Association: Foundations in Population Health: Closing the Gap Between Disease Management and Sustainable Community Health (apta.org)</u></p> <p>Online APTA Learning Center</p> <p>1 hour</p>	<p>Jennifer Gamboa, PT, DPT, OCS</p>	<ol style="list-style-type: none"> 1. This course provides an introduction to Population Health Management and builds the context for the essential role that multi-faceted, scale-able health promotion and prevention interventions play in achieving sustainable, value-based health outcomes at national and global

		<p>levels. This course will lay the foundation for assessing and developing population health initiatives using the social-ecological framework. In Part 1, participants will evaluate the economic burden and prosperity costs of chronic disease management. In Part 2, participants will survey historical and contemporary population health initiatives to close the gap between disease management and sustainable community health. In Part 3, participants will evaluate evidence-based interventions for key health behaviors.</p>
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CRITERION #6: Transmission of Knowledge

1) Identify journals and other periodicals related specifically to the proposed specialty area.

- American Family Physician
- Annals of Family Medicine
- Arthritis Care & Research
- BMC Health Services Research
- BMC Musculoskeletal Disorders
- BMC Primary Care
- British Medical Journal (BMJ)
- British Journal of General Practice
- Canadian Family Physician
- Cardiopulmonary Physical Therapy Journal
- Chiropractic & Manual Therapies
- Clinical Practice Guidelines, APTA
- Contemporary Clinical Trials
- Disability and Rehabilitation
- European Respiratory Journal (ERJ) Open
- Family Medicine
- Family Medicine and Community Health
- Frontiers in Pain Research
- Frontiers in Rehabilitation Science
- Health & Social Care in the Community
- International Journal of Environmental Research and Public Health
- International Journal of Sports Physical Therapy
- International Urogynecology Journal
- Irish Journal of Medical Science
- JMIR Rehabilitation and Assistive Technologies
- Journal of Acute Care Physical Therapy
- Journal of the American Board of Family Medicine (JABFM)
- Journal of the American Medical Association (JAMA)
- Journal of Bodywork and Movement Therapies
- Journal of Clinical Electrophysiology and Wound Management
- Journal of Family Medicine & Primary Care
- Journal of Family Practice
- Journal of Geriatric Physical Therapy
- Journal of Hand Therapy
- Journal of Integrative and Complementary Medicine
- Journal of Interprofessional Care
- Journal of Manual & Manipulative Therapy
- Journal of Neurologic Physical Therapy
- Journal of Orthopedic & Sports Physical Therapy (JOSPT)
- Journal of Pediatric Orthopaedics
- Journal of Primary Care & Community Health
- Journal of Primary Health Care
- Journal of School Health
- Journal of Telemedicine and Telecare
- Journal of Women's & Pelvic Health Physical Therapy

- Military Medicine
- Musculoskeletal Care
- Musculoskeletal Science & Practice
- New England Journal of Medicine
- Orthopaedic Physical Therapy Practice
- Pain
- Pediatric Physical Therapy
- Pediatrics & Child Health
- Physiotherapy
- Physiotherapy Canada
- Physiotherapy Theory and Practice
- Primary Care for the Physical Therapist by Bill Boissonnault
- PTJ: Physical Therapy & Rehabilitation Journal
- Rehabilitation Oncology
- Scandinavian Journal of Primary Health Care
- Sports Health: A Multidisciplinary Approach
- Ultrasound Journal

2) Provide a complete bibliography of peer-reviewed scientific articles dealing with the proposed specialty area, and pertaining to the scope of physical therapy practice, published during the most recent calendar year. Briefly describe the search process used to gather this information.

Search:

Search was conducted on February 21, 2025 using Pubmed. Results were limited to publications in English language. The following search terms were used:

(“physiotherapist”[TIAB] or “physical therapist”[TIAB] or “physiotherapy”[TIAB] or
 “physical therapy”[TIAB] or “Physical therapy specialty”[Mesh])
 AND
 (“advanced practice”[TIAB] or “first contact”[TIAB] or “entry point”[TIAB] or “entry-
 point”[TIAB] or “initial contact”[TIAB] or “direct access”[TIAB] or “primary
 care”[TIAB] or “extended scope”[TIAB] or “physician extender”[TIAB])

Titles and abstracts were screened by a reviewer using Covidence (Veritas Health Innovation, Melbourne, Australia) to ensure that articles were focused on Primary Care Physical Therapy. Primary Care PT was defined as consultation or intervention by a physical therapist in one of the following models:

- PT physically located at primary care setting or integrated within the primary care visit
- PT as part of triage procedure when a patient presents with health concern
- PT as entry-point provider

The Pubmed search yielded 208 results for the year 2024, and 92 were deemed relevant to primary care physical therapy.

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3) Provide the number of these articles published each year over the previous five (5) years. Briefly describe the search process used to gather this information.

The search strategy used for calendar year 2024 above was also applied for years 2020-2023. The search was conducted on Pubmed with results restricted to English language using the following search terms:

("physiotherapist"[TIAB] or "physical therapist"[TIAB] or "physiotherapy"[TIAB] or "physical therapy"[TIAB] or "Physical therapy specialty"[Mesh])

AND

("advanced practice"[TIAB] or "first contact"[TIAB] or "entry point"[TIAB] or "entry-point"[TIAB] or "initial contact"[TIAB] or "direct access"[TIAB] or "primary care"[TIAB] or "extended scope"[TIAB] or "physician extender"[TIAB])

Titles and abstracts were reviewed using the same methodology described above for articles published in 2024. The table below presents the number of articles identified in

the search and the number of articles relevant to Primary Care PT based on title and abstract screening/

Year of publication	Number of articles retrieved from Pubmed search	Number of articles relevant to Primary Care Physical Therapy
2024	208	92
2023	182	81
2022	191	72
2021	182	71
2020	178	80

4) Describe methods of knowledge transmission through symposia, seminars, workshops, etc. Provide frequency of documented events, event locations, estimates of the average total attendance, and enclose representative programs concerning these activities.

Event	Location	Average Attendance	Programs
<u>APTA CSM APTA</u>	Annually	12,000-17,000	2021 - <ul style="list-style-type: none"> Part 1: Evolution of PT in Primary Care - Past, Present & Future Part 2: Evolution of Physical Therapy in Primary Care - Models of Care 2022 <ul style="list-style-type: none"> Barriers & Solutions to Implementing PT within Primary Care Practice 2023 <ul style="list-style-type: none"> Screening & Management of Persistent Pain in a Primary Care Physical Therapy Setting 2024

			<ul style="list-style-type: none"> • Primary Care Physical Therapy: A Proven Model of Care Within the Veterans Health Administration • Implementation of Integrated Primary Care Physical Therapy Models: A Workshop
APTA Federal Primary Care SIG - 1st Annual Primary Care PT Summit & Thin Tank	Baylor University, Waco TX	30	<u>Course Details</u>
VHA Primary Care Physical Therapy Training Workshop	VA Outpatient Clinic Monterey, CA	30	<p>Outcomes/Objectives:</p> <ol style="list-style-type: none"> 1. Compare and contrast the PT's role and responsibilities associated with the differential diagnosis/medical screening process with those of physicians and physician extenders 2. Demonstrate knowledge of how to and when to integrate medical screening principles and procedures into an efficient and effective patient examination scheme 3. Evaluate history and physical examination findings to identify red flags and decide whether communication with a physician or physician extender is warranted regarding a patient's health status 4. Employ strategies to facilitate professional communication between physical therapists and physician and physical therapists and patient; including when, how and what to communicate as a part of a patient referral 5. Safely and effectively employ observation, palpation, auscultation, and special tests to medically screen skin, head/neck/shoulder girdle

			<p>lymph nodes and glandular tissues, abdominal organs, and signs of peripheral vascular disease and non-displaced fractures</p> <p>6. Describe the various types of neurological presentations seen in PT practice and identify indications for further imaging, testing and neurological studies</p> <p>7. Perform basic differentiations of neurological and vestibular conditions with respect to triage</p> <p>8. Educate patients and other providers about the potential causes, contributing factors and neurophysiologic processes of pain</p> <p>9. Utilize and incorporate this information and background into developing diagnostic, procedural and educational reasoning.</p>
VHA Clinical Decision Making within PACT (Patient Aligned Care Teams) PT Workshop	VHA SimLEARN National Simulation Center, Orlando FL	70	<p>The purpose for hosting this workshop was to create implementation guides, educate on treatment plans, and create a standardized communication plan for the field to successfully enable the spread of the embedding PT in PACT primary care clinics throughout VHA. Multidisciplinary front-line staff (Physicians, PTs, Nurses) were directly involved in the workshop for hands-on simulation training, team-building, and responsible for delivery of outcomes at their individual facilities.</p>
Primary Care Physical Therapy Summit 2023	George Fox University, Newberg OR	30	<p>This 8 credit CME course includes national leaders and therapists advocating for expansion of physical therapy services in the primary care setting. Speakers include</p>

			<p>physical therapists that are national leaders in pain care models to improve access to non-pharmacological treatments, representatives of the Department of Veterans Affairs embedded primary care service, and advocates for redefining health education to include an emphasis on primary care. These speakers join local health systems and their clinicians implementing primary care physical therapy in the northwest. Physical therapists from local health systems will discuss specific strategies that include improving the medical team's clinical decisions, providing immediate triage care and expanding access to physical therapy services. Outcomes such as lowering imaging rates, decreasing use of injections, and use of opioids for pain management are also reported. Although pain management and musculoskeletal care are emphasized a variety of other diagnoses and patients' groups may benefit. The emphasis of this seminar is on new data and experiences of primary care service providers in the northwest area to promote adoption by new health systems and local providers.</p>
<p><u>Foundations for the Primary Care PT: A Hands-On Workshop Redefine Health Ed</u></p>	<p>Orangeburg, SC Jul 14-15, 2022</p> <p>Chicago, IL Aug 27-28, 2022</p> <p>Phillipsburg, KS Nov 7-8, 2023</p>	<p>15-20</p>	<p><u>See website</u></p>

	<p>Salt Lake City, Jan 28-29 2023</p> <p>Chicago, IL May 20-21, 2023</p> <p>Other locations by request</p>		
<u>Annual Primary Care Orthopedics Course</u>	June annually - Chicago	200+	Multidisciplinary conference
The Primary Care PT Podcast	NA	>2600 downloads	Available on <u>Apple Podcasts</u> , Spotify & Youtube

MINIMUM ELIGIBILITY REQUIREMENTS

- Current licensure to practice Physical Therapy in the United States or any of its possessions or territories
- Applicants must meet requirements for option A or option B:
 - Option A: Applicants must submit evidence of 2,000 hours of direct patient care in primary care physical therapy within the last 10 years, 25% (500) of which must have occurred within the last 3 years.
 - Option B: Applicants must submit evidence of successful completion of an APTA-accredited post-professional clinical residency within the specialty area, completed within the last 10 years. Applicants who are currently enrolled in an ABPTRFE-accredited clinical residency or are enrolled in a residency program that has been granted candidacy status, may apply for the specialist certification examination in the appropriate specialty area prior to completion of the clinical residency. These applicants will be conditionally approved to sit for the examination, as long as they meet all other eligibility requirements, pending submission of evidence of successful completion of the ABPTRFE-accredited clinical residency to APTA's Specialist Certification Program, no later than one month before the examination window opens. To verify your residency program's credentialing status, please visit www.abptrfe.org.
- Additional specialty specific requirements: Case Reflection
 - The purpose of this requirement is to document competency in patient/client management in the area of primary care physical therapy. Patient management in a clinical case reveals clinical reasoning skills that are essential to demonstrating competency in primary care physical therapy.
 - Case submissions must have a reflective component and must have documentation that reflects clinical reasoning based on a patient/client seen within the last three years.

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PRIMARY CARE SPECIALTY BOARD CERTIFICATION PETITION
PRO FORMA FINANCIAL STATEMENT

Phase	Activity	Expenses	Revenues
Practice Analysis Planning & Development			
	Consultant	\$10,000	
Practice Analysis Survey and Petition Submission			
	Consulting Fee	\$5012 (HumRRO Phase II)	
	Analysis of Survey Data	Covered by APTA – Staff time	
	Component Management Services	N/A	
	Incentive to increase survey rate-of-return	\$0	
	Printing & mailing of petition	\$0	
	Petition Submission fee to ABPTS (\$3,000 APTA Phase 1 2020, \$4500 APTA Phase 2 2023)	\$7,500	
Exam Development			
	Estimated cost for development of initial certification examination \$50,000. 50% cost covered by APTA Specialist Certification Program.	\$25,000 APTA Federal (\$5,000/year over 5 years) \$25,000 ABPTS	
Exam Production			
	Specialty Council Meetings x 2	Covered by APTA	
	Administrative costs	Covered by APTA	
	Test Review Materials		\$32,000 sales of test review packets and CE course 128 p x \$250
Revenue: Estimated number of individuals to sit for Exam within 5 years: 255 (\$356,885)			

We are submitting the petition with hopes for approval in 2025 and plans to complete exam development in 2026 and 2027, with exam production in 2028. Based on survey numbers (87 ‘definitely yes’, and 168 ‘probably yes’ would take the exam) our Pro Forma reflects at least 255 individuals sitting for the exam in the first 5 years following development.

Revenues are generated from the application review fee and exam fee which are \$535 and \$810 respectively for APTA members and \$880 and \$1535 for non-APTA members. Per the

ABPTS, grossly 95% of those that sit for the exam are APTA members and 5% are non-APTA members. This was factored into each year.

Additional revenue estimated is generated from an exam review packet and CE course at \$250. The projected number who will take advantage of this is estimated at 50% of those that apply for the exam each year.

The estimated number of individuals to sit for the exam through the year 2031 is 255, with 95% being APTA and 5% non-APTA members for a total amount of \$356,885. An additional \$32,000 is estimated in revenue from the review packet and CE course. Estimated expenses are \$72,512 leaving total revenue at **\$316,373**.

APPENDIX A: 100 signatures

Primary Care Specialization

This petition is for **active APTA members** who are in favor of creating an ABPTS Primary Care Board- Certified Clinical Specialty. To initiate this process, 100 signatures are needed to begin this process. Once 100 signatures are obtained, the next step is to submit an application for consideration. If you are in support of this concept, please fill in your information and signature.

By signing this list, you are in agreement of this idea. If you have any questions about this idea, please feel free to contact John.Heick@nau.edu.

	Printed Name	APTA Member #	Address	Place of Work	Email	Signature
1	John Heick	314247	2145 W University Ave, Flagstaff, AZ 86001	Northern Arizona University	John.Heick@nau.edu	
2	Carmen Cooper-Oguz	200324	305 Shumate Circle Cleveland, MS 38732	North Sunflower Medical Center Mississippi Delta Community College	Carmen.oguz@northsunflower.com	<i>Carmen Oguz, PT, DPT, MBA</i>
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52	Raine Osborne	21733	14 Bonita Dr. Ponte Vedra Beach, FL 32082	Brooks Rehabilitation	Raine.Osborne@Brooksrehab.org	
53	Meredith Shimp	31844	1372 Avondale Ave, Jacksonville FL 32205	Brooks Rehabilitation	Meredith.shimp@brooksrehab.org	
54	Jennifer Quartano	396867	13582 Capistrano Dr S, Jacksonville, FL 32224	Brooks Rehabilitation	Jennifer.quartano@brooksrehab.org	<i>Jennifer Quartano PT, DPT</i>
55	Elizabeth Heick		2145 W University Ave, Flagstaff, AZ 86001	Northern Arizona University	Elizabeth.heick@nau.edu	
56	Damien Avery	238922	2710 Saddle Dr., Durham, NC 27712	Butner Federal Medical Center	Chevblue62@icloud.com	<i>Damien W Avery PT</i>

57	Rebekah	406461	6852 Eagle	University of	Rebekah.griffith@uch ealth.org	<i>Rebekah L Griffith PT, DPT, NCS</i>
58	Griffith		Place Highlands Ranch, CO 80130	Colorado Hospital		<i>10057</i>
59	Frank Bates	312911	1239 Greenwood Station Blvd, Greenwood, IN 46143	University of Indianapolis	batesf@uindy.edu	<i>Frank Bates, PT, DPT, MBA</i>
60	James McCallum	156319	906 W. University Ave., Suite 120 Flagstaff, AZ 86001	CoreBalance Therapy LLC	Jay@CoreBalanceTh erapy.com	<i>J. McCallum, PT, DPT</i>
61	Cara Payne		6606 E Carondelet D Tucson, AZ 85710	Applied Physical Medicine	Cararun@hotmail.co m	<i>Cara Payne PT, DPT</i>
62	Todd Perry	185238	16 Grant Street Potsdam, NY 13676	Canton- Potsdam Hospital Potsdam, NY	Todd. perry@hotmail.com	<i>Todd Perry, PT</i>
63	Jeffrey Kallberg		9823 Mechaca Rd Helotes, TX 78023	University of Texas Health Science Center San Antonio	kallberg@uthscsa.ed u	<i>Jeffrey Kallberg, PT, DPT</i>
64	Kathleen Lavato		540 S. Seton Mesa, AZ 85206	Encompass Health East Valley Rehabilitation Hospital	Kathleen.lovato@enc ompasshealth.com	<i>Kathleen Lovata, PT, DPT</i>
65	Samantha Leonhardt		9630 E. Shea Blvd. Scottsdale, AZ 85260	Encompass Health Rehabilitation Hospital of Scottsdale	Samantha.leonhardt @encompasshealth. co m	<i>Samantha Leonhardt, PT, DPT, CLT</i>
66	Christopher Meachem	46052	2300 N Commonwealth Ave 3L Chicago, IL 60614	Jesse Brown VA Medical Center 820 S Damen Ave (117) Chicago, IL 60614	crmeachem@gmail.c om	<i>Christopher Meachem, PT, DPT</i>
67	Mary K. Sawert	50689	4323 W. Lapenna Drive Phoenix, AZ	Nightingale Homecare	kate.c.sawert@gmail. com	<i>M.K. Sawert PT MA</i>
68	Steve Kaye		8685 W. Union Hills Dr, Peoria, AZ, 85382	Arrowhead Physical Therapy	skaye@arrowheadpt. com	<i>Steve Kaye PT, DPT</i>
69	Tarang K Jain	447005	1156 E sterling Ln, Flagstaff, AZ 86005	Northern Arizona University	Tarang.Jain@nau.ed u	
70	Amanda Simone	394277	3832 Monticello Dr. Woodbury MN 55129	Minnesota VA	amandasimone28@g	
71	Andrea Woolridge		Whiteriver Indian Health Service 200 W. Hospital Dr. Whiteriver, AZ 85941	Whiteriver Indian Health Service, USPHS Active Duty Commissioned Officer	Andrea.woolridge@ih	<i>Andrea Woolridge</i>
72	Jordan Williams		10915 460 N Switzer Canyon Dr #400 Flagstaff, AZ 86001	Proof Physical Therapy and Performance	jwill34@gmail.com	<i>JORDAN WILLIAMS, PT, DPT</i>
73	Karen Kilman		353 Cimarron Ct. Prescott, AZ 86301	Pinon Health Center P.O. Box 10 Pinon, AZ 86510	Karen.Kilman@ihs.go v	<i>Karen F. Kilman PT, DPT, OCS</i>

74	Cecelia Sartor-Glittenberg		4331 E Peak View Cave Creek, AZ 85331	A.T. Still University	cglittenberg@atsu.edu	<i>Cecelia Sartor-Glittenberg</i>
75	Kelly McLearnan		10550 N. LaCanada Dr. Ste. 160, Oro Valley, AZ 85737	Proactive Physical Therapy	Kellym@proactivept.com	<i>Kelly McLearnan, PT, MPT</i>
76	Michael Winters				Michaelwinters@gmail.com	
77	Stanton Urling		5656 S Power Rd #139 Gilbert Az 85296	ROC Physical Therapy	surling68@gmail.com	<i>Stanton Urling</i>
78	Brian Young	179966	4617 Red Rock Pass Schertz TX 78154	Baylor Univ	Byoungpt@gmail.com	<i>Brian Young</i>
79	Rebecca Byerley		104 S. Binkley, Suite C Soldotna, AK 99669	Elite Rehabilitation- Physical Therapy and Sports Health	Rbrehab@acsalaska.net	<i>Rebecca Byerley, PT, DPT</i>
80	Ali Schoos		6837 Ripley Lane SE Renton WA 98056	Peak Sports and Spine Physical	Aschoos@peaksportsandspinept.com	<i>Ali Schoos, PT</i>
81	Dan Russo	441396	5818 Sandhill Dr. Middleton, WI 53562	Group Health Cooperative of South Central Wisconsin	Dtrusso@gmail.com	<i>Daniel Russo, PT</i>
82	James Cumming	370714	3818 Cosgrove Dr. Madison, WI 53719	UW Health	Jcumming@uwhealth.	<i>James R.</i>
83	Patrick R. Scott		1690 Aspen Commons Apt 515 Middleton WI 53562	UW Health	Pscott@uwhealth.org	<i>Patrick R. Scott</i>
84	M. Corey Hillman	441396	3911 Walker Ave. Grennsboro, NC 27403	Baylor University	m.coreyhillman@gmail.com	<i>Madisson Corey Hillman</i>
85	Matt Peterson		6311 Elmwood Ave. Middleton, WI 53562	UW Health	Mpeterson@uwhealth	<i>Matthew D</i>
86	Trent Harrison	26186	3688 Sancturay Way S. Jacksonville Beach FL 32250	Brooks Rehabilitation	Trent.harrison@brooksrehab.org	<i>Trent Harrison</i>
87	Jacob Bliefertnicht	396549	2809 Sommers Ave. Madison, WI 53704	UW Health	Jbliefertnicht@uwhealth.org	<i>Jacob Bliefertnicht, PT, DPT, OCS</i>
89	Jana Parnell	728462	4615 Ramona Blvd Jacksonville, FL 32205	Brooks Rehabilitation	Jana.parnell2@brooksrehab.org	<i>Jana Parnell PT, DPT</i>
90	John Imundi	306525	5850 E. Still Circle Mesa, AZ 85206	A.T. Still University	jimundi@atsu.edu	<i>John Imundi</i>
91	Mark Langenbach	42149	14155 N. 83rd Ave. Bldg 8, Suite 148 Peoria, AZ 85381	Concentra Peoria	mark_langenbach@concentra.com	<i>Mark Langenbach PT, MBA SCCE</i>
92	Teri Roberts	309323	14557 W Indian School Rd Goodyear AZ	Arizona Orthopedic Physical	troberts@azopt.net	<i>Teri Roberts, PT, DPT</i>

			85395			
93	Jordan Hoile	566992	McGuire VA Medical Center 1201 Broad Rock Blvd Richmond, VA 23249	Veterans Health Administration	jhoile11@su.edu	<i>Jordan Hoile</i>
94	Kevin Mahon		5830 Coral Ridge Dr #300 Coral Springs, FL 33076	Ardor Health Solutions	Kpmahon89@gmail.com	<i>Kevin Mahon, PT, DPT</i>
95	Kaye Sjöholm		1919 E Thomas Rd. Phoenix, AZ 85016	Phoenix Children's Hospital	ksjöholm@phoenixchildrens.com	<i>Kaye Sjöholm</i>
96	Aaron	291761	OSR Physical	OSR Physical	aaronwilliams@osrphysicaltherapy.com	<i>Aaron Williams</i>
97	Williams		Therapy 41125 N. Daisy Mountain Dr. Suite 125 Anthem, AZ 85086	Therapy		
98	Tonya Apke	99798	3925 Mariners Way Lewis Center, OH 43035	The Ohio State University	Apke.5@osu.edu	<i>Tonya Apke</i>
99	Josh Bailey	185293	1197 Carnegie Place Forest, VA 24551	Rehab Associates of Centra Virginia	Josh.bailey@racva.com	<i>Joshua Bailey</i>
100	Christopher Covert	412256	1212 Garfield Avenue, Parkersburg,	Mountain River Physical Therapy	Chris.covert@mountainriverpt.com	<i>Christopher Covert, PT, DPT, OCS, FAAOMPT</i>
101	Danielle Bohl	334463	1150 State Street Phillipsburg, KS 67661	Phillips County Health Systems	Dbohl@phillipshospital.org	<i>Danielle Bohl, PT</i>
102	Daniel Dale	476511	2252 Winding Woods Drive Tucker, GA 30084	Mercer University	Dale_dc@mercer.edu	<i>Daniel Dale, PT, DPT</i>
103	Michael Shoemaker	230580	439 Cheshire Dr NE	Grand Valley State Univ	Shoemami@gvsu.edu	<i>Michael J Shoemaker, PT, DPT, PhD</i>
104	Robert Rowe	12950	4937 Blackhawk Dr St. Johns, FL 32259	Brooks IHL	Robert.rowe@brookshealth.org	<i>Robert H Rowe</i>
105	Ivan Matsui	56399	6850 Snake rd Oakland, CA 94611	Kaiser Permanente Northern California	Ivan.matsui@kp.org	<i>Ivan Matsui, PT, FAAOMPT</i>
106	Todd Davenport	292393	3601 Pacific Ave Stockton, CA 95211	University of the Pacific & Kaiser Permanente Northern California	tdavenport@pacific.edu	<i>Todd E. Davenport, PT, DPT, MPH, OCS</i>
107	Joe Tupta	241200	4602 Eastpark Blvd Madison, WI 53718	UW Health Madison, WI	Jtupta@uwhealth.org	<i>Joseph R Tupta, PT, OCS</i>
108	Marlowe Banatao	736395	6372 Mirabeau Drive, Newark, CA 94560	Kaiser Permanente Northern California	Mbanatao@atsu.edu	<i>Marlowe Banatao, PT, DPT CSCS</i>
109	Brian Harde	678714	207 Sage Lane Madison Heights,	Centra Health	Brian.harde@centrahealth.com	<i>Brian Harde, PT, DPT</i>

			VA 24572			
110	Shelja Bansal	601419	34313 Portia Terrace, Fremont 94555	Kaiser Permanente, CA	Shelja.rastogi@gmail.com	<i>Shelja bansal, PT, DPT</i>
111	Michael Vo	270837	4234 Coolidge Ave Oakland, CA 94602	Kaiser Permanente Fremont Medical Center	Michael.Vo@kp.org	<i>Michael Vo, PT, DPT, OCS, FAAOMPT</i>
112	Priti Chitale	599797	7449 Sundrop Court Pleasonton, CA 94588	Kaiser Permanente Union City	Priti.s.chitale@kp.org	<i>Pschitale. PT, DPT, board certified, neurological clinical</i>
113	Stephen Chan	512621	1819 Willow Lake Lane, San Jose, CA 95131	Kaiser Permanente Fremont Medical Center	Stephen.m.chan@kp.org	<i>Stephen Chan, PT, DPT, FAAOMPT</i>
114	Mark Mailloux	95859	36 Jericho Road Kingston, NH 03848	Portsmouth Regional Hospital	mark.mailloux@comcast.net	<i>Mark Mailloux, PT, MBA</i>
115	Patrice Chen	602199	46954 Masonic Terrace, Fremont, CA 94539	Kaiser Permanente Fremont Medical Center	Patrice.e.chen@kp.org	<i>Patrice E Chen PT, DPT</i>
116	Andrea Johnson	247771	200 Brooklet Court, Huntsville, AL 35806	Nesin Therapy Services	Andrea.j@nesintherapy.com	<i>Andrea L Johnson, PT, DPT</i>
117	Stephen "Matt" Willey	247690	1517 Circa Drive, Modesto, CA 95357	Kaiser Permanente Modesto Medical Center	Stephen.willey@kp.org	<i>Stephen M. Willey, PT, DPT, COMT, FAAOMPT</i>
118	Teoma Loeb	36785	3761 High St. #61-06 Oakland Ca 94619	Kaiser Union City	Teoma.l.loeb@kp.org	<i>Teoma L. Loeb, PT, DPT, MDiv</i>
119	Ida Shahidi	655155	2740 Gamble Ct., Hayward, CA 94542	Kaiser Permanente Northern California	Ida.shahidi@kp.org	<i>Ida Shahidi PT, DPT, OCS</i>
120	Ryan Vickers	711950	10536 Marlfield Ct,	Brooks Rehabilitation	Ryan.vickers@brooksrehab.org	<i>Ryan Vickers PT, DPT</i>
121	Jeremy Houser		526 South 21 Street, Terra Haute, IN. 47803	Indians State University	Jeremy.houser@indstate.edu	<i>Jeremy Houser, DPT, PhD(c), OCS</i>

APPENDIX B: Supporting Letters

1.

TO:
Derek D. Stepp
Director, Postprofessional Credentialing
American Physical Therapy Association
Department of Education
1111 North Fairfax Street
Alexandria, VA 22314-1488

FROM: David Lane, M.D., 350 N Wilmot Road, Tucson, AZ 85711

Dear ABPTS,

This letter confirms my strong support for the intention of creating an ABPTS Primary Care Board Certified Clinical Specialist. The establishment of a board certified primary care physical therapist track would help meet the demands of the ever-evolving health care needs of society. This clinical specialist would have advanced expertise to practice across patients' lifespans, managing patients across a wide spectrum of health conditions. Such a specialist would bring great value to any primary care delivery model. All current ABPTS clinical specialist tracks are limited to recognition of physical therapists with advanced expertise in one specific area of practice.

Please don't hesitate to contact me if you have any questions whatsoever.
Thank you for your consideration of this needed specialization. These efforts will directly impact OUR patients.

Sincerely,



DLane@soundphysicians.com

2.

TO:
Derek D. Stepp
Director, Postprofessional
Credentialing American Physical
Therapy Association Department of
Education
1111 North Fairfax Street
Alexandria, VA 22314-
1488

FROM:
Jerry Blow
MD 3600 30th
Des Moines, IA 50310

Dear ABPTS,

This letter confirms my strong support for the intention of creating an ABPTS Primary Care Board Certified Clinical Specialist. The establishment of a board certified primary care physical therapist track would help meet the demands of the ever-evolving health care needs of society. This clinical specialist would have advanced expertise to practice across patients' lifespans, managing patients across a wide spectrum of health conditions. Such a specialist would bring great value to any primary care delivery model. All current ABPTS clinical specialist tracks are limited to recognition of physical therapists with advanced expertise in one specific area of practice.

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Thank you for your consideration of this needed specialization. These efforts will directly impact OUR patients.

Sincerely,
Jerry Blow, MD
Chief of Staff
VA Central Iowa HCS

3.

TO:

Derek D. Stepp
Director, Post professional
Credentialing American Physical
Therapy Association Department of
Education
1111 North Fairfax Street
Alexandria, VA 22314-1488

FROM:

David E. Cole, MSIM, BSN, RN
DEPARTMENT OF VETERANS AFFAIRS
Sioux Falls VA Health Care
System 2501 West 22nd Street
Sioux Falls, South Dakota 57117

3/26/2019

Dear **ABPTS**,

This letter confirms my strong support for the intention of creating an **ABPTS** Primary Care Board Certified Clinical Specialist. The establishment of a board certified primary care physical therapist track would help meet the demands of the ever-evolving health care needs of society. This clinical specialist would have advanced expertise to practice across patients' lifespans, managing patients across a wide spectrum of health conditions. Such a specialist would bring great value to any primary care delivery model. All current ABPTS clinical specialist tracks are limited to recognition of physical therapists with advanced expertise in one specific area of practice.

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Thank you for your consideration of this needed specialization. These efforts will directly impact OUR patients.

Sincerely,

3/26/2019

X David E. Cole

David E. Cole

MSIM, BSN, RN

Signed by: DAVID E. COLE 1100981

Primary Care SF, SD PACT-TEAM A

(K. Hanchett, MD)

PO BOX 5046

4.

EnviroMD

P.O. Box 66020, Tucson, Arizona 85728-6020 (520) 881-1000 • Facsimile (520) 299-7002

March 25, 2019

Mr. Derek D. Stepp
Director, Post-professional Credentialing
American Physical Therapy Association
Department of Education
1111 North Fairfax Street
Alexandria, VA 22314-1488

Re: ABPTS Primary Care Board Certified Specialist

Dear Mr. Stepp,

I write to provide my professional support for the proposed creation of an ABPTS Primary Care Board Certified Clinical Specialist status. I have observed the value of physical therapists' involvement in patient care throughout my career. Not only have physical therapists been valuable in the emergency department for early treatment of injuries, balance problems, vertigo, etc., they have been key providers in rehabilitation of stroke patients and severely deconditioned patients who have suffered from prolonged inactivity due to illness. The establishment of a board certified primary care physical therapist track would help meet those increasing health care needs of an aging population of society generally. A clinical specialist with advanced expertise to practice across patients'

Mr. Derek D. Stepp
Director, Post-professional Credentialing

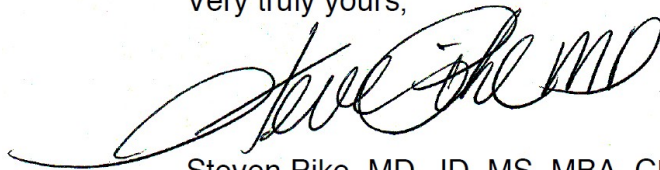
March 25, 2019

lifespans and capable of managing patients across a wide spectrum of health conditions, would bring greater value to any primary care delivery system. Current ABPTS clinical specialist tracks are limited to recognition of physical therapists with advanced expertise in one specific area of practice.

Please don't hesitate to contact me if you have any questions or want to discuss the referenced proposal.

Thank you for your consideration of the proposed designation of a Primary Care Board Certified Specialist. I believe that it is a needed specialization that will directly improve patient care and safety.

Very truly yours,

A handwritten signature in black ink, appearing to read "Steve Pike MD", with a large, sweeping flourish extending to the left.

Steven Pike, MD, JD, MS, MBA, CIH
FACMT, FACOEM, FACEP, FAACT, OFRSM
President
Immediate Past-Chief of Staff
Carondelet St. Joseph's Hospital

5.

TO:

Derek D. Stepp
Director, Postprofessional
Credentialing American Physical
Therapy Association
Department of Education
1111 North Fairfax Street
Alexandria, VA 22314-1488

FROM:

Christopher Ryer, DPT, OCS,
CSMT Physical Therapist
Minneapolis VA Medical
Center Phone: 612-772-
2001
Christopher.Ryer@va.gov

Dear ABPTS,

This letter confirms my strong support for the intention of creating an ABPTS Primary Care Board Certified Clinical Specialist. The establishment of a board certified primary care physical therapist track would help meet the demands of the ever-evolving health care needs of society. This clinical specialist would have advanced expertise to practice across patients' lifespans, managing patients across a wide spectrum of health conditions. Such a specialist would bring great value to any primary care delivery model. All current ABPTS clinical specialist tracks are limited to recognition of physical therapists with advanced expertise in one specific area of practice.

Please don't hesitate to contact me if you have any questions whatsoever. Thank you for your consideration of this needed specialization. These efforts will directly impact OUR patients.

6.

TO:

Derek D. Stepp
Director, Post Professional
Credentialing American Physical
Therapy Association Department of
Education
1111 North Fairfax Street
Alexandria, VA 22314-
1488

FROM: Audrey Kost PA-C Sioux Falls

VA Center. Dear ABPTS,

This letter confirms my strong support for the intention of creating an ABPTS
Primary Care

Board Certified Clinical Specialist. The establishment of a board certified
primary care physical therapist track would help meet the demands of the
ever-evolving health care needs of society. This clinical specialist would have
advanced expertise to practice across patients' lifespans, managing patients
across a wide spectrum of health conditions. Such a specialist would bring
great value to any primary care delivery model. All current ABPTS clinical
specialist tracks are limited to recognition of physical therapists with
advanced expertise in one specific area of practice.

7.

TO:

Derek D. Stepp
Director, Postprofessional
Credentialing American Physical
Therapy Association Department of
Education
1111 North Fairfax Street
Alexandria, VA 22314-
1488

FROM: Brandi Csordacsics, RN BSN

Dear ABPTS,

This letter confirms my strong support for the intention of creating an ABPTS Primary Care Board Certified Clinical Specialist. The establishment of a board certified primary care physical therapist track would help meet the demands of the ever-evolving health care needs of society. This clinical specialist would have advanced expertise to practice across patients' lifespans, managing patients across a wide spectrum of health conditions. Such a specialist would bring great value to any primary care delivery model. All current ABPTS clinical specialist tracks are limited to recognition of physical therapists with advanced expertise in one specific area of practice.

Please don't hesitate to contact me if you have any questions whatsoever. Thank you for your consideration of this needed specialization. These efforts will directly impact OUR patients.

8.

TO:

Derek D. Stepp
Director, Postprofessional
Credentialing American Physical
Therapy Association Department of
Education
1111 North Fairfax Street
Alexandria, VA 22314-
1488

FROM:

Megan Persson, CNP
Sioux Falls VA Medical
Center Primary Care PACT
2501 W. 22nd St.
Sioux Falls, SD 57105
P: (605) 336-3230; ext. 7637
F: (612) 725-1287

Dear ABPTS,

This letter confirms my strong support for the intention of creating an ABPTS Primary Care Board Certified Clinical Specialist. The establishment of a board certified primary care physical therapist track would help meet the demands of the ever-evolving health care needs of society. This clinical specialist would have advanced expertise to practice across patients' lifespans, managing patients across a wide spectrum of health conditions. Such a specialist would bring great value to any primary care delivery model. All current ABPTS clinical specialist tracks are limited to recognition of physical therapists with advanced expertise in one specific area of practice.

Please don't hesitate to contact me if you have any questions whatsoever. Thank you for your consideration of this needed specialization. These efforts

9.

TO:

Derek D. Stepp
Director, Postprofessional
Credentialing American Physical
Therapy Association Department of
Education
1111 North Fairfax Street
Alexandria, VA 22314-
1488

FROM:

May Kushner, First Lieutenant AMEDD, FNP, MSN, ENP

Dear ABPTS,

This letter confirms my strong support for the intention of creating an ABPTS Primary Care Board Certified Clinical Specialist. The establishment of a board certified primary care physical therapist track would help meet the demands of the ever-evolving health care needs of society. This clinical specialist would have advanced expertise to practice across patients' lifespans, managing patients across a wide spectrum of health conditions. Such a specialist would bring great value to any primary care delivery model. All current ABPTS clinical specialist tracks are limited to recognition of physical therapists with advanced expertise in one specific area of practice.

Please don't hesitate to contact me if you have any questions whatsoever.

Thank you for your consideration of this needed specialization. These efforts will directly impact OUR patients.

1

Sincerely,

bl

May Kushner, First Lieutenant AMEDD, FNP, MSN, ENP
Maykusmer@yahoo.com

APPENDIX C: Primary Care Practice Analysis Survey (2018)

Primary Care Physical Therapy: Description of Specialty Practice Validation

The description below provides background on the proposed scope of practice for a primary care specialist.

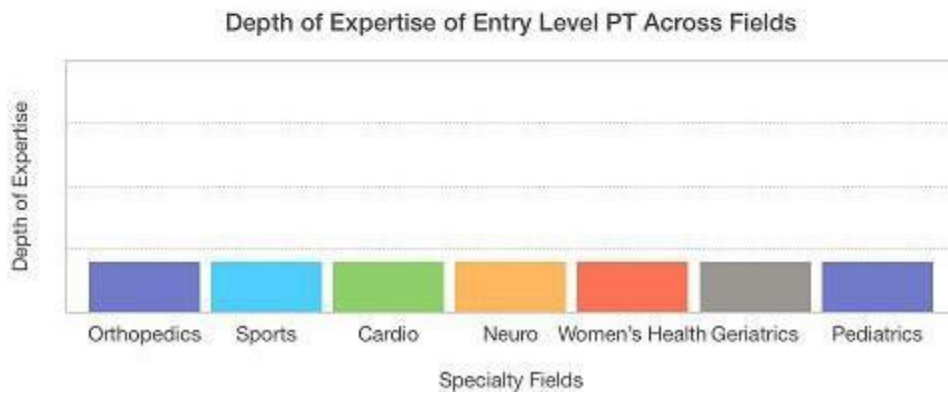
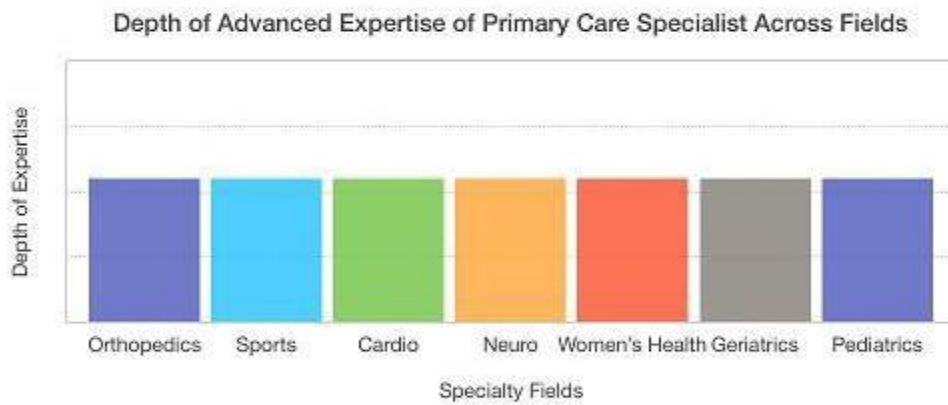
A PT who is board certified as a primary care specialist would treat a general and diverse population within a variety of practice settings, and practice at a higher level than that of a new graduate.

Designation as a primary care specialist would allow for recognition of PTs who do not pursue the traditional focused specialty areas that currently exist under ABPTS. Board certification would instead recognize these PTs as advanced general practitioners.

In brief, a primary care physical therapy specialist would:

- Have advanced experience and expertise practicing across the lifespan to both evaluate and treat patients and clients across a wide spectrum of health conditions, rather than specializing and limiting practice to 1 area of physical therapy
- Have attained this experience through formal post professional education or through many years of experiential learning opportunities
- Be working in any of a variety of settings including, but not limited to, a rural or other setting in which patient choices for PT services are limited; an acute, urgent care, or emergency department setting; a hospital-based outpatient setting; or a private practice setting
- Practice at a more efficient and effective level of care and decision-making than that of nonspecialist PTs

Although primary care specialists also may be ABPTS board-certified in a clinical specialty, they do not limit their practice to that area of specialization.



P1.1. Does the initial description of this new specialty describe your own clinical practice?

Yes

Maybe/Somewhat

No

This Question is Conditionally Shown if: (P1.1 = Yes OR P1.1 = Maybe/Somewhat)

P2.1. Based on the initial description of this new specialty, I consider myself to be practicing Primary Care Physical Therapy at the level of a Specialist.

Y

This Question is Conditionally Shown if: (P2.1 = Yes)

P3. I am willing to participate in this survey.

Y

(End of Page 1)

This Page is Conditionally Shown if: ((P1.1 = Yes OR P1.1 = Maybe/Somewhat) AND (P2.1 = Yes) AND (P3 = Yes) AND (5 = "A"))

You do NOT have to complete the entire survey at one time; you will be able to start, save, stop, and return to the survey to complete it. NOTE: If you need to leave the survey, scroll to the bottom of the page and click the SAVE button. When you return to the survey using your personalized link, it will take you to where you left off. Additionally, we highly recommend you use the SAVE button at the end of each survey page.

Survey Guidelines

The *Guide to Physical Therapist Practice 3.0*¹ describes the Patient/Client Management Model, which includes Examination (history, systems review, tests and measures), Evaluation, Diagnosis, Prognosis, Intervention, and Outcomes. The accepted standards for all physical therapy practice, including Primary Care Specialty Practice, are based on the *Guide* and the patient/client management model, as well as the APTA Code of Ethics and applicable state practice acts. As such, this survey is targeted at the elements of practice that distinguish Primary Care Specialty practice from non-specialty practice. While the specialist may be performing these same elements of practice, as "specialists" they may be performing them with additional knowledge or skill, and may analyze and synthesize information differently. The result of these differences is that the specialist is using higher level clinical reasoning and is practicing more efficiently and effectively than the non-specialist. We ask you to please consider each item carefully in this context, so that the results of this survey truly reflect an "advanced" level of practice.

Section 1 – Knowledge Areas

This section includes knowledge areas that Primary Care Specialists use in their work. For each area, please check your rating on all three scales as shown.

REMEMBER: If you are only working part-time in advanced specialty Primary Care physical therapy practice setting, please judge the items as if you were working full-time in the Primary Care physical therapy practice setting.

¹*Guide to Physical Therapist Practice 3.0*. Alexandria, VA: American Physical Therapy Association; 2014. Available at: <http://guidetoptpractice.apta.org/>. Accessed June 16, 2017.

Frequency - How frequently does the Primary Care Clinical Specialist use this knowledge area?

- 1 - Never
- 2 - Less than once a month
- 3 - Monthly
- 4 - Weekly
- 5 - Daily

Importance - Regardless of the frequency of occurrence or prevalence, how important is this knowledge area to practice as a Primary Care Specialist?

- 1 – Not important
- 2 – Of little importance
- 3 – Moderately important
- 4 – Very important

Level of Judgment - Which of the following statements best describes the level of judgment Primary Care Clinical Specialists exercise when they use information from this knowledge area?

- 0 - Do not use in their work
- 1 - Recall
- 2 - Application
- 3 - Analysis

Level of Judgment Definitions - Please keep the following definitions for the skill levels indicated in the Level of Judgement scale in mind when completing the survey:

Recall: requires ability to recall or recognize specific information only.

Application: requires ability to comprehend, interpret or apply knowledge to new or changing situations.

Analysis: requires ability to analyze information, to put information together to arrive at a solution, and/or to evaluate the usefulness of the solution.

1.1 Foundation Sciences

1.1.1 Anatomy and Physiology of the following systems:

1.1.1.1. Cardiovascular and Pulmonary

1.1.1.2. Musculoskeletal

1.1.1.3. Genitourinary

1.1.1.4. Integumentary

1.1.1.5. Lymphatic

1.1.1.6. Immunologic

1.1.1.7. Neurological

1.1.1.8. Gastrointestinal

1.1.1.9. Vestibular

1.1.1.10. Endocrine

Please click **SAVE** to save your responses so they will be there if you need to return to the survey to complete it.

(End of Page 2)

This Page is Conditionally Shown if: ((P1.1 = Yes OR P1.1 = Maybe/Somewhat) AND (P2.1 = Yes) AND (P3 = Yes) AND (5 = "A"))

Section 1 – Knowledge Areas (cont.)

REMEMBER: If you are only working part-time in advanced specialty Primary Care physical therapy practice setting, please judge the items as if you were working full-time in the Primary Care physical therapy practice setting.

1.2 Clinical Sciences

1.2.1 Pathology/pathophysiology

1.2.1.1. Immunology

1.2.1.2. Microbiology

1.2.1.3. Progression of disease/injury processes

1.2.1.4. Pathokinesiology

1.2.1.5. Signs and symptoms of disease/injury

1.2.1.6. Tissue inflammation, healing, response to exercise, and repair

1.2.1.7. Complications and considerations specific to bariatric medicine and obesity

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1.2.2. Movement Science

1.2.2.1. Ergonomics

1.2.2.2. Kinesiology/clinical biomechanics

1.2.2.3. Locomotion

1.2.2.4. Motor control and learning

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Section 1 – Knowledge Areas (cont.)

REMEMBER: If you are only working part-time in advanced specialty Primary Care physical therapy practice setting, please judge the items as if you were working full-time in the Primary Care physical therapy practice setting.

1.2.3. Human Growth and Development across the lifespan

1.2.4. Epidemiology of chronic disease

1.2.5. Exercise physiology

1.2.6. Occupational health

1.2.7. Pain Science

1.2.7.1. Central nervous system pain physiology

1.2.7.2. Output mechanisms and expressions (e.g., immune, endocrine, sympathetic, behavioral)

1.2.7.3. Peripheral nociceptive pain physiology

1.2.7.4. Peripheral neuropathic pain physiology

1.2.7.5. Social and psychological impacts related to pain

1.2.8. Pharmacology

1.2.8.1. Pharmacokinetics and pharmacodynamics

1.2.8.2. Pharmacological treatment of co-morbidities and common conditions encountered

1.2.8.3. Drug interaction and polypharmacy as well as use of supplements

1.2.9. Medical imaging and radiation science

1.2.9.1. Appropriateness for ordering imaging

1.2.9.2. Integrating results with clinical examination data

1.2.10. Laboratory Science

Reminder: Please click SAVE to make sure your responses are there if you need to stop and then restart the survey.

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1.3. Behavioral Science

1.3.1 Biopsychosocial Model (as it relates to holistic health care)

1.3.1.1. Theories of Behavior and Behavior Change, such as behavioral reactions to pain and limitations, and coping strategies relevant to assessment and management

1.3.1.2. Specific indications, diagnostic tools, and interventions based on behavioral principles

1.3.1.3. Role of the biopsychosocial model in relation to primary care (e.g. inter-professional management strategies and exam and management strategies that address psychosocial and personal factors)

1.3.1.4. The relationship of pain to disability

1.3.1.5. The influence of the primary care physical therapist's behavior on the patient's behavior and vice versa

1.3.1.6. Patient centered, culturally competent care

1.3.2. Communication theory

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Section 1 – Knowledge Areas (cont.)

REMEMBER: If you are only working part-time in advanced specialty Primary Care physical therapy practice setting, please judge the items as if you were working full-time in the Primary Care physical therapy practice setting.

1.3.3. Psychiatry

1.3.3.1. Common psychiatric symptoms, syndromes, and classifications

1.3.3.2. Effect of psychiatric disease and treatment on cognition, learning, and function

1.3.3.3. Aphysiologic presentations such as conversion disorder

1.3.4. Education: Theories of Teaching and Learning

1.3.5. Health and Wellness

1.3.5.1. Behavior change, stages of change, and readiness for change

1.3.5.2. Theories and practice of behavior change for clinical practice (e.g. Cognitive Behavior Therapy, Acceptance Commitment Therapy, motivational interviewing)

1.3.5.3. Impact of health behaviors on general health, lifespan, disease risk, and prognosis for specific conditions

1.3.5.4. Genetic influences

1.3.5.5. Principles of prevention and wellness

1.3.5.6. Sleep Science

1.3.5.7. Exercise for general health including professional organization recommendations (e.g. Health and Human Services, American College of Sports Medicine) on quantity/quality/type

Reminder: Please click SAVE to make sure your responses are there if you need to stop and then restart the survey.

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Section 1 – Knowledge Areas (cont.)

REMEMBER: If you are only working part-time in advanced specialty Primary Care physical therapy practice setting, please judge the items as if you were working full-time in the Primary Care physical therapy practice setting.

1.3.6. Nutrition

1.3.6.1. Recommendations on nutritional needs across the lifespan from professional organizations and government agencies

1.3.6.2. Nutritional impact on chronic disease

1.3.6.3. Common dietary patterns and achieving a healthy diet using an eating pattern that works for the patient

1.3.7. Pain Management

1.3.7.1. Fear avoidance behaviors and other negative coping strategies related to pain and loss of function

1.3.7.2. Pain neuroscience education and other patient-centered behavioral pain approaches

1.3.7.3. Appropriate referral to other healthcare providers within the pain management team

1.3.8. Sociology, (e.g., cultural sensitivity, family systems theory, impact of poverty and early childhood experiences such as trauma on long term health and disease.)

1.4. Medical and Surgical Interventions

1.4.1. Diagnostic tests and measures (e.g. EKG, electrophysiological exams)

1.4.2. Nonsurgical medical interventions and their implications for Primary Care Physical Therapy

1.4.3. Surgical and invasive interventions and their implications for Primary Care physical therapy

1.4.4. Developments in genetics/regenerative medicine (e.g. genetic markers, stem cell applications, genetic-based)

1.5. Primary Care Considerations

1.5.1. Systems-Based Practice (e.g. actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value)

1.5.2 Differential Diagnosis

1.5.2.1. Models of differential diagnosis and clinical reasoning such as hypothesis-oriented algorithm for clinicians (HOAC) model or the prospect theory

1.5.2.2. Ongoing Assessment/reassessment throughout the continuum of care

1.5.3. Medical Screening

1.5.4. Principles of physical therapy evaluation and treatment of patients across the lifespan with musculoskeletal, neuromuscular, cardiovascular, cardiovascular/pulmonary, integumentary, or cognitive impairments

1.6. Critical Inquiry for Evidence Based Practice

1.6.1. Critical appraisal of research findings on Primary Care physical therapy

1.6.2. Application of research findings to Primary Care physical therapy

1.6.3. Statistical Concepts

Section 1 - Knowledge Areas. Please use the space below for comments and/or for any additional knowledge areas you feel should have been included in this survey.

Please click **SAVE** to save your responses so far.

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This Page is Conditionally Shown if: ((P1.1 = Yes OR P1.1 = Maybe/Somewhat) AND (P2.1 = Yes) AND (P3 = Yes) AND (5 = "A"))

Section 2- Professional Roles and Responsibilities

This section addresses what Primary Care Clinical Specialists do in their day-to-day professional roles beyond patient management. In order to identify the relevant and important parts of the practice of Primary Care physical therapy, we are asking you to use this inventory to describe the work of Primary Care Clinical Specialists and to make judgements about their professional responsibilities.

Please remember, if you are only working part-time in Primary Care specialty practice setting, please judge the items as if you were working full-time in Primary Care specialty practice.

Please judge the items on three scales as shown below and select your answers for all three scales.

Frequency - How frequently does the Primary Care Clinical Specialist perform this activity?

- 1 - Never
- 2 - Less than once a month
- 3 - Monthly
- 4 - Weekly
- 5 - Daily

Importance - Regardless of the frequency of occurrence or prevalence, how important is this activity to practice as a Primary Care Specialist?

- 1 – Not important
- 2 – Of little importance
- 3 – Moderately important
- 4 – Very important

Level of Mastery- Level of Mastery refers to the level of skill at which a physical therapist performs during the management of patients/clients with Primary Care diagnoses and impairments. What skill level would a Primary Care specialist demonstrate while performing this activity?

- 0 – Advanced beginner skill level
- 1 – Competent skill level
- 2 – Proficient skill level
- 3 – Expert skill level

Level of Mastery Definitions - Please keep the following definitions for the skill levels indicated in the Level of Mastery scale in mind when completing the survey:

Advanced beginner skill level: Physical therapists at this level demonstrate acceptable performance but are not able to identify what is most important. They have little or no perception of recurrent meaningful aspects of clinical or administrative situations. Their efficiency is marginal. They rely on rules and guidelines to understand the situation. Clinical decision-making is labor-intensive.

Competent skill level: Physical therapists at this level have the ability to identify the important aspects of a situation, prioritize them and make a plan that improves efficiency. The PTs have a conscious clinical awareness and perceive that their actions have meaning and purpose. Their efficiency is moderate and flexibility is beginning to develop.

Proficient skill level: Physical therapists at this level perceive each situation as a whole rather than parts. Performance is guided by clinical experience and data. These PT's have learned what to expect in a variety of clinical situations. Their perspective is presented by the situation, related to past experience and recent events. Decision-making has become more fluid.

Expert skill level: Physical therapists at this skill level demonstrate an intuitive grasp of the situation and zero in on the problem without wasting time. They are able to manage complex clinical situations without difficulty. Performance is flexible, fluid and efficient. Clinical decision-making is rapid and accurate.

If you need to leave the survey and return to it later, please remember to scroll to the end of this page and click SAVE.

2.1. Communication

2.1.1. Employ effective communication strategies with individuals across the lifespan, including verbal, nonverbal, and assistive technologies

2.1.2. Empower individuals in the management of their own health

2.1.3. Facilitate collaborative inter-professional communication, team management, and transitions of care for patients/clients

2.1.4. Address cultural and/or social issues that affect the plan of care

2.1.5. Employ communication skills necessary for effective utilization of technology in telephone and video visits (return visits and initial consults)

2.2 Risk Management

2.2.1. Practice risk management strategies, including informed consent, during physical therapy examination and intervention

2.2.2. Adhere to legally required reporting requirements (e.g. domestic violence, sexual abuse)

2.2.3. Maintain a referral base of content experts (medical as well as non-medical) within the community for patient access

2.2.4. Maintain a readily accessible network of available interdisciplinary resources for consultation and referral that are compliant with any and all regulatory, agency, and time frame requirements

2.3. Effective Lifelong Learning/Professional Development

2.3.1. Maintain state-of-the-art knowledge and skills by participation in continuing professional development such as residency education, fellowships, seminars, structured study, journal clubs, etc.

2.4 Consultation

Consultation to contribute special knowledge or expert opinion in client-based, community, or academic settings, including:

2.4.1. Clients, clients' families, and other health-care professionals (e.g., in-services, support groups, and team meetings).

2.4.2. Peer review (e.g., chart reviews, peer teaching evaluations).

2.4.3. Other venues, including the legal system, legislators, corporations, third-party payers, health care regulatory agencies, and health care disparity issues.

2.5. Education

2.5.1. Provide evidence-informed Primary Care physical therapy educational programs to a variety of audiences, including students, other health care professionals, the public, elected officials, political groups and candidates, and third-party payers.

2.5.2. Mentor physical therapists, physical therapist assistants, other health-care professionals, physical therapist residents, and students by participating in clinical education and research related to Primary Care physical therapy.

2.6. Marketing

2.6.1. Market and promote the breadth of physical therapy clinical services as well as professional branding

2.6.2. Market health and financial advantages of investing in prevention and wellness to individuals, communities and healthcare systems

2.7. Practice Management

Effectively manage all aspects of clinical practice including, but not limited to:

2.7.1. Relationship/practice building

2.7.2. Appreciation and respect for physical therapist scope of practice.

2.8. Service

2.8.1. Participation in Professional Organizations

2.8.1.1. Participate in professional organizations and activities related to physical therapy.

2.8.1.2. Maintain current knowledge of the activities of national and international organizations of physical therapy.

2.8.1.3. Represent physical therapy to other professional organizations.

2.8.2. Social Responsibility

2.8.2.1. Demonstrate social and community responsibility, including participation in community and human service organizations

2.8.2.2. Identify available pro bono services in the community to share with patients/clients.

2.8.2.3. Organize pro bono educational presentations to support prevention education across the lifespan.

2.8.3. Advocacy

Primary Care physical therapist specialists:

2.8.3.1. Advocate for their patients through direct patient care interventions, education, service, research, legislation, and the development of community resources to meet the needs of patients/clients.

2.8.3.2. Advocate for important policy issues including physical therapy scope of practice, appropriate payment, and patient access to physical therapy services, etc.

2.9. Evidence Informed Care

2.9.1. Critically review quantitative and qualitative research literature, recognizing quality in research design, data analysis, and levels of research evidence.

2.9.2. Retrieve, integrate, and critically apply knowledge from the clinical, biomedical, and behavioral sciences in order to draw inferences for primary care while recognizing the limitations of incorporating evidence into practice.

2.9.3. Assess the validity of tests performed including the sensitivity, specificity, and likelihood ratio.

2.9.4. Critically evaluate the results of treatment and modify and progress treatment and management as required using outcome measures to evaluate the effectiveness of care.

2.9.5. Integrate and apply evidence informed approaches in the presentation of health promotion and preventive care programs.

2.9.6. Enhance and promote the rights of the patient to actively participate in the health care management taking into account the patient's wishes, goals, attitudes, beliefs, and circumstances.

2.9.7. Recognize the need for the development of further evidence in primary care and the role of research in advancing the body of knowledge in primary care physical therapy.

2.9.8. Recognize and assess the risks, benefits, and economics of specific interventions, including the principle that interventions with little or no evidence for additional benefit, but some increased risk, should be deferred.

Reminder: Please click SAVE to make sure your responses are there if you need to stop and then restart the survey.

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Section 2- Professional Roles and Responsibilities (cont.)

Please remember, if you are only working part-time in Primary Care specialty practice setting, please judge the items as if you were working full-time in Primary Care specialty practice.

2.10. Clinician Scientist

2.10.1. Develop clinical questions for relevant patients and perform literature reviews in real time that quickly assist in identifying information regarding the questions.

2.10.2. Determine the best path of management based on knowledge and clinical skill when the questions have not been previously answered.

2.10.3. Utilize appropriate patient outcome measures and submit outcomes to a national registry.

2.10.4. Publish and/or present ideas regarding identified trends based on innovative patient management

2.10.5. Assess and reflect on outcomes and utilize that information to guide current and future patient management.

2.11. Clinical Reasoning

In patient care, the Primary Care specialist engages in ongoing high level, effective clinical reasoning to include emphasis on:

2.11.1. The highest ethical standards.

2.11.2. Resource efficiency specific to the patient as well as the patient's health care system

2.11.3. Broad levels of hypothesis generation during early subjective examination and development of hypothesizes about contributing factors, precautions, contraindications, and management

2.11.3.1. Generation of a continually developing understanding of the patient's treatable problems by serially identifying the underlying mechanisms contributing to those problems.

2.11.3.2. Advanced skills in pattern recognition which drive:

2.11.3.2.1. Expert prioritization of differential diagnosis and systematic assessment to rule in/rule out hypotheses.

2.11.3.2.2. Use of efficient processes to control reasoning in dealing with complex patients with multiple comorbidities.

2.11.3.2.3. Expert exam-planning based on appropriate interpretation of subjective examination, including system screening, assessment of pain, sensitivity, and irritability.

2.11.3.2.4. Flexibility and openness in the analytic process using metacognition to respond appropriately to emerging data and changing patient status.

2.11.3.2.5. Collaborative reasoning which involves the patient in the patient-centered care process.

2.11.3.2.6. Evolving understanding of patient presentation and identifying underlying mechanisms, contributing to patient problem(s).

2.11.3.2.7. Efficient and effective use of algorithms with the ability to avoid (or at least minimize) clinical reasoning errors

2.12. Reflective Practice

As a reflective practitioner, the Primary Care specialist:

2.12.1. Utilizes ongoing effective self-assessment of clinical and professional skills to reflect on practice and identify opportunities for improvement.

2.12.2. Uses effective communication skills to control, and express one's emotions, and to handle interpersonal relationships judiciously and empathetically.

2.12.3. Assesses practice outcomes to validate physical therapy services based on quality, effectiveness, productivity, or service, and be able to identify opportunities for improvement.

2.12.4. Identifies and prioritizes areas for growth and follows through as a life-long learner through review of research as well as through professional affiliations.

2.12.5. Identifies and encourages inter-professional practice opportunities.

2.12.6. Devotes time and effort to resolve complex problems

2.12.7. Tolerates uncertainty/ambiguity

2.12.8. Adheres to the APTA Code of Ethics.

2.12.9. Remains current with evolving trends in patient preferences, changes in health policy on international, federal, and more local levels.

2.12.10. Contributes to periodic practice analyses for state and national associations

2.13. Direct Roles in Patient/Client Management

2.13.1. Provide advanced general physical therapy patient care across the lifespan for patients who self refer or are referred to physical therapy

2.13.2. Triage patients as first contact providers, at an advanced competency level.

2.13.3. Identify and prioritize health care problems in need of evaluation and management by another member of the healthcare team

2.13.4. Consultation to/ from other colleagues

2.13.5. Collaboration and coordination throughout the continuum of care

2.13.6. Provide telehealth services (eg phone, video) as allowed by law

2.13.7. Provide Prevention/Wellness/Health Promotion Services

2.13.7.1. Provide culturally appropriate physical therapy services for prevention, health promotion, and fitness and wellness programs to individuals, groups, and communities.

2.13.7.2. Promote health and quality of life for patients/clients by providing information on health promotion, fitness, wellness, disease, impairment, functional limitations, disability, injury prevention, secondary prevention in chronic disease, disability managements and health risks related to age, gender, culture, and lifestyle.

2.13.7.3. Provide education, behavior strategies, referral opportunities, and identification of supportive resources for adherence to health care recommendations (eg stress management, weight management, nutritional strategies, sleep health, alcohol moderation, substance-free and violence-free living)

Section 2 – Professional Roles and Responsibilities. Please use the space below for any comments or other professional roles you feel should have been included in this survey.

Reminder: Please click SAVE to make sure your responses are there if you need to stop and then restart the survey.

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Survey Guidelines

The *Guide to Physical Therapist Practice 3.0*¹ describes the Patient/Client Management Model, which includes Examination (history, systems review, tests and measures), Evaluation, Diagnosis, Prognosis, Intervention, and Outcomes. The accepted standards for all physical therapy practice, including Primary Care Specialty Practice, are based on the *Guide* and the patient/client management model, as well as the APTA Code of Ethics and applicable state practice acts. As such, this survey is targeted at the elements of practice that distinguish Primary Care Specialty practice from non-specialty practice. While the specialist may be performing these same elements of practice, as "specialists" they may be performing them with additional knowledge or skill and may analyze and synthesize information differently. The result of these differences is that the specialist is using higher level clinical reasoning and is practicing more efficiently and effectively than the non-specialist. We ask you to please consider each item carefully in this context, so that the results of this survey truly reflect an "advanced" level of practice.

Section 3 - Practice Expectations in Patient/Client Management

Section 3 is similar to the individual components of the Patient/Client Management Model from The *Guide to Physical Therapist Practice 3.0*. However, Section 3 focuses primarily on those components that Primary Care Specialists may perform at a different level than non-advanced specialist therapists. Your feedback from this survey will allow us to determine those skills, thought processes, and abilities to synthesize information that define an Advanced Primary Care Specialist's practice.

REMEMBER: If you are only working part-time in advanced specialty Primary Care physical therapy practice setting, please judge the items as if you were working full-time in the Primary Care physical therapy practice setting.

Frequency - How frequently does the Primary Care Clinical Specialist perform this activity?

- 1 - Never
- 2 - Less than once a month
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- 5 - Daily

Importance - Regardless of the frequency of occurrence or prevalence, how important is this activity to practice as a Primary Care Specialist?

- 1 - Not important
- 2 - Of little importance
- 3 - Moderately important
- 4 - Very important

Level of Mastery - Level of Mastery refers to the level of skill at which a physical therapist performs during the management of patients/clients with Primary Care diagnoses and impairments. What skill level would a Primary Care specialist demonstrate while performing this activity?

- 0 - Advanced beginner skill level
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Level of Mastery Definitions - Please keep the following definitions for the skill levels indicated in the Level of Mastery scale in mind when completing the survey:

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Competent skill level: Physical therapists at this level have the ability to identify the important aspects of a situation, prioritize them and make a plan that improves efficiency. The PT's have a conscious clinical awareness and perceive that their actions have meaning and purpose. Their efficiency is moderate and flexibility is beginning to develop.

Proficient skill level: Physical therapists at this level perceive each situation as a whole rather than parts. Performance is guided by clinical experience and data. These PT's have learned what to expect in a variety of clinical situations. Their perspective is presented by the situation, related to past experience and recent events. Decision-making has become more fluid.

Expert skill level: Physical therapists at this skill level demonstrate an intuitive grasp of the situation and zero in on the problem without wasting time. They are able to manage complex clinical situations without difficulty. Performance is flexible, fluid and efficient. Clinical decision-making is rapid and accurate.

REMEMBER: If you have to leave the survey and return to it later, scroll to the end of the page and click SAVE so your responses so far are saved.

3.1 Examination

3.1.1. History

3.1.1.1. Patient major complaints

3.1.1.2. Patient concerns and goals

3.1.1.3. Role function (eg, worker, student, spouse, grandparent)

3.1.1.4. Medical history

3.1.1.5. Surgical history

3.1.1.6. Medications and supplements

3.1.1.7. Previous intervention(s) and response

3.1.1.8. Prior level of function

3.1.1.9. Psychological function (eg, memory, reasoning ability, anxiety, depression, morale, and fear avoidance beliefs)

3.1.1.10. Social habits (past and current)

3.1.1.10.1. Behavioral health risks such as smoking and substance abuse

3.1.1.10.2. Level of physical fitness (self-care, home management, community, work (work, school, play), and leisure activities)

3.1.1.11. Environmental factors including community, home, and work barriers, assessment of current and potential barriers, ergonomics and body mechanics (eg, analysis of specific tasks, work environment, functional capacity) and self-care and independence in home management (eg, functional capacity, safety, commute and hobbies,)

3.1.1.12. Address health habits (eg nutritional and dietary habits, recreational habits, sleep quality)

3.1.1.13. Family/genetic history (eg disease, risk factors, early childhood experiences)

3.1.1.14. Prior diagnostic testing (eg consults, imaging, labs, neurological testing)

3.1.1.15. Description of current symptoms (eg 24-hour behavior, aggravating and easing factors, body chart, onset, and pain level)

3.1.1.16. Co-morbidities

3.1.1.17. Identify patient goals for interventions

3.2. Perform Systems Review

3.2.1. Perform systems review to assess physiologic and anatomic status (eg. cardiovascular, pulmonary, integumentary, neurological, urogenital, gastrointestinal, cognition, and communication skills).

3.2.2. Appropriately examine communication affect, cognition, language, and learning style of patient/client.

3.3. Conduct Test and Measures (listed alphabetically)

3.3.1. Anthropometric measures (eg BMI, weight, height, waist circumference)

3.3.2. Arousal, Attention, and Cognition (eg arousal and awareness scales, ability to process commands, communication and language barriers, level of consciousness, motivation and capacity to participate in intervention, orientation to time, person, place, and situation, and recall ability).

3.3.3. Circulation (Arterial, Venous, Lymphatic)

3.3.3.1. Cardiovascular signs, including heart rate, rhythm, and sounds; pressures and flow; and superficial vascular responses (eg, auscultation, electrocardiography, girth measurement, observations, palpation, sphygmomanometry, ankle/brachial index, perceived exertion scales)

3.3.3.2. Cardiovascular symptoms (eg, angina, claudication)

3.3.3.3. Lymphatic system function (eg, girth and volume measurements, palpation, observation of skin texture)

3.3.3.4. Physiological responses to position change, including autonomic responses, central and peripheral pressures, heart rate and rhythm, respiratory rate and rhythm, ventilatory pattern

3.3.4. Diagnostic testing (eg laboratory tests, imaging, and electrophysiologic testing)

3.3.5. Dynamic assessment both with and without the use of assistive, adaptive, orthotic, or other devices/equipment

3.3.5.1. Gait

3.3.5.2. Movement analysis (eg real time observation, video, technology)

3.3.5.3. Motor function (eg, assessment of motor learning and motor control).

3.3.5.4. Coordination

3.3.5.5. Balance (vestibular, proprioceptive, visual)

3.3.5.6. Activities of Daily Living performance

3.3.5.7. Safety assessment (eg falls risk assessment, ergonomics)

3.3.6. Functional performance tests

3.3.7. Illness behavior assessment (eg Screen Assist, STarT BACK, depression screen)

3.3.8. Integumentary assessment (eg, signs of inflammation, soft tissue swelling/inflammation/infection, wounds)

3.3.9. Joint integrity (eg, mobility assessment of joint hyper and hypomobility, to include active and passive range of motion, passive accessory motions, response to manual provocation).

3.3.10. Musculoskeletal assessment (muscle performance, endurance, strength, power, muscle tone)

3.3.11. Neurologic assessment

3.3.11.1. Neuromotor screen (eg Upper Motor Neuron Screen, Lower Motor Neuron Screen, and upper motor neuron tests such as Babinski and Hoffman's)

3.3.11.2. Neuromechanical assessment (eg nerve mobility/neurodynamics)

3.3.11.3. Neuromotor development and sensory integration (eg, assessment of age appropriate development, dexterity, coordination, and integration of somatosensory, visual, and vestibular systems).

3.3.11.4. Reflex integrity (eg, assessment of normal and pathological reflexes).

Reminder: Please click SAVE to make sure your responses are there if you need to stop and then restart the survey.

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This Page is Conditionally Shown if: ((P1.1 = Yes OR P1.1 = Maybe/Somewhat) AND (P2.1 = Yes) AND (P3 = Yes) AND (5 = "B"))

Section 3 - Practice Expectations in Patient/Client Management (cont.)

REMEMBER: If you are only working part-time in advanced specialty Primary Care physical therapy practice setting, please judge the items as if you were working full-time in the Primary Care physical therapy practice setting.

3.3.11.5. Cranial nerve integrity

3.3.11.6. Sensory integrity (eg, assessment of superficial sensation, dermatomes, myotomes, proprioception, and kinesthesia).

3.3.12. Observation (eg posture, deformity, symmetry, affect, transfers, and motor control)

3.3.13. Orthotic, protective, prosthetic, and supportive devices (eg, assessment of appropriateness, use, remediation of impairment, alignment and fit, safety).

3.3.14. Pain (eg, assessment using questionnaires, behavioral scales, visual analog scales).

3.3.15. Palpation (eg edema, bony landmarks, muscles, tendons, ligaments, presence of abnormal tissue examination such as masses or deformities, symptom manifestation/modification)

3.3.16. Pulmonary assessment (eg breath sounds/rate, nail clubbing, lung auscultation)

3.3.17. Soft tissue assessment (eg, myofascial mobility, pain pressure threshold).

3.3.18. Special tests specific to working diagnosis

3.4. Evaluation

3.4.1. Interpret data from history and systems review (eg, identify relevant, consistent, accurate data, prioritize impairments, assess patient's/client's needs, motivations, and goals, determine working diagnoses, and plan the tests and measures).

3.4.2. Identify current, emerging or potential "yellow" and/or "red flags" which may warrant caution throughout client management, medical referral, or both.

3.4.3. Select tests and measures that are comprehensive, consistent with history and systems review, appropriately sequenced and prioritized, and which have acceptable measurement properties (eg, high specificity/sensitivity) to verify or refute the working diagnosis.

3.4.4. Select and prioritize examination procedures to focus on identification of localized pain vs. regional vs. widespread pain sensitivity.

3.4.5. Determine depth and breadth of medical screening and differential diagnosis

3.4.6. Avoid common diagnostic reasoning errors such as anchoring, confirmation bias, and other sources of medical error

3.4.7.Develop a working problem/ hypothesis list.

3.4.8.Determine a differential diagnosis including primary and competing hypotheses and identification of complicating factors (e.g. co-morbidity, economic, psychosocial factors).

3.4.9.Evaluate and interpret data from the examination (correlate history/systems review with tests and measures); consider intervening factors, such as stage or irritability of condition and personal and environmental factors according to the International Classification of Functioning, Disability and Health (ICF) model.

3.4.10. Incorporate data from ancillary testing (eg, imaging, labs, electrophysiological studies).

3.4.11. Consider implications of exam findings on activity, quality of life, and wellness as established by the ICF.

3.4.12. Refine hypotheses through the evaluation process.

3.4.13. Refer patients/clients to other health care professionals for further examination as appropriate, based on systems review and medical screening.

3.4.14. Determine risk stratification (eg risk of loss of work prognostically, poor outcomes, persistent symptoms, suicide risk, depression)

3.5.Diagnosis

Based on the evaluation, organize data into recognized clusters, patterns, syndromes, or categories to establish a diagnosis.

3.6.Prognosis

3.6.1.Establish a prognosis, including the predicted optimal level of improvement in function and the amount of time needed to reach that level.

3.6.2.Select plan of care/intervention approach to include referral to another health care professional, physical therapy intervention, or further examination.

3.6.3.Assess extent of movement/exercise-based interventions and relate to hypothesis in order to achieve patient goals and outcomes

3.6.4.Plan specific type and dosage of home/independent exercise programs, identifying indications/ contraindications and considering the strength of available, relevant evidence.

3.6.5. Respond to emerging data from examinations and interventions:

3.6.5.1. Assess response to intervention (changes in signs and symptoms; new symptoms; changes in tissue response, mobility, and function).

3.6.5.2. Determine the significance of changes in signs and symptoms as they relate to the plan of care (determine relationship between expected result and actual result, cause of change, relevance of change).

3.6.6. Modify and redirect examination and intervention based on this data.

3.7. Intervention

3.7.1. Patient education/coaching with regards to:

3.7.1.1. Diagnosis, prognosis, course of episode/condition, intervention, , responsibility, and self- management within plan of care

3.7.1.2. Mutually acceptable goals

3.7.1.3. Using biopsychosocial and biomedical models

3.7.1.4. Pain physiology and dose response

3.7.1.5. Prevention and wellness

3.7.1.6. Behavior modification and cognitive-behavioral approaches

3.7.1.7. Planning for end of episode of care

3.7.2. Coordination, Communication, and Documentation

3.7.2.1. Communicate effectively with patients/clients, family members, caregivers, practitioners, consumers, payers, and policymakers about primary care health issues.

3.7.2.2. Discuss rationale for physical therapy examination and intervention procedures, including use of current best evidence, with patients/clients, peer professionals, and payers.

3.7.2.3. Collaborate as a health care team member and leader to ensure that physical therapy is a part of an appropriate, culturally competent, comprehensive plan for care.

3.7.2.4. Adapt communication to appropriate educational level(s).

3.7.2.5. Complete thorough documentation following guidelines and specific documentation formats required by the practice setting (eg, communication with payer sources for maximizing treatment services and resources, legal protection of staff, patient, and/ or facility)

3.7.3. Procedural Interventions

3.7.3. Manual therapy (eg soft tissue mobilization, joint mobilization/manipulation, dry needling, lymphatic drainage, visceral therapy)

3.7.4. Therapeutic exercise instruction to include:

3.7.4.1. Aerobic capacity and endurance

3.7.4.2. Motor control and coordination

3.7.4.3. Muscle performance (eg, strength, muscle endurance)

3.7.4.4. Graded exposure/ graded activity

3.7.4.5. Vestibular training

3.7.4.6. Body mechanics and ergonomics

3.7.5. Proprioception training (eg, repositioning, balance, agility)

3.7.6. Neurological therapy treatment designed to improve deficits related to neurological conditions (eg, developmental, TBI, CVA, demyelinating disease, SCI)

3.7.7. Electrotherapeutic modalities integrating motor learning/ motor control concepts (eg biofeedback and NMES)

3.7.8. Prescription, application, and, as appropriate, fabrication of protective, adaptive, or supportive device or equipment (eg, orthotics, braces, serial casting, wheelchairs, kinesiotaping)

3.7.9. Functional training in self-care and in domestic, education, work, community, social, and civic life

3.7.10. Assistive technology (eg seating, wheelchair, prosthetics)

3.7.11. Ergonomic counseling and modification

3.7.12. Gait training (general and with technology)

3.7.13. Airway clearance techniques, including breathing strategies, manual/mechanical techniques, and positioning.

3.7.14. Integumentary repair and protection techniques including debridement, wound therapy, dressings, positioning, and modalities.

3.7.15. Plan specific type and dosage of home/independent exercise/treatment programs, identifying indications/ contraindications

3.8. Outcomes

3.8.1. Assess improvement of patient's/client's activities and participation based on best available evidence and patient/client-specific variables (eg, history, diagnosis, complications, personal goals).

3.8.2. Choose appropriate assessment measures to determine initial and long-term responses to intervention.

3.8.3. Use applicable, evidence-based outcomes measurement tools/questionnaires/scales (eg, STarT BACK, Lower Extremity Functional Scale, Timed Up and Go, 6-minute walk test)

3.8.4. Determine attainment of agreed-upon functional goal(s) and level of patient/client satisfaction

3.8.5. Assess efficacy of resources used to achieve patient outcomes

Section 3 – Practice Expectations in Patient/ Client Management . Please use the space below for any comments concerning Practice Expectations in Patient/ Client Management or other items that you feel are missing from this survey.

Reminder: Please click SAVE to make sure your responses are there if you need to stop and then restart the survey.

(End of Page 12)

This Page is Conditionally Shown if: ((P1.1 = Yes OR P1.1 = Maybe/Somewhat) AND (P2.1 = Yes) AND (P3 = Yes))

Section 4 - Examination Content Outline

If the Primary Care Specialty becomes a recognized ABPTS specialty, they will develop a certification exam blueprint representing the major components of the Description of Specialty Practice. We would like to have your input as to how you feel those percentages should be allocated.

1. Please indicate what percentage of each component should be represented in a future certification exam. Your responses should total 100%.

Anatomy and Physiology _____

Clinical Science _____

Behavioral Science _____

Medical and Surgical Interventions _____

Primary Care Considerations _____

Critical Inquiry for Evidence Based Practice/Professional Roles and Responsibilities _____

Evaluation/Examination _____

Diagnosis/Prognosis _____

Intervention/Outcomes _____

Section 5 - Demographic Information

Please answer each item by the response that most clearly describes you or your professional activities. This demographic information is collected for purposes of group analysis. Individual responses will not be analyzed and are confidential.

4.1. Are you in favor of establishing a Primary Care Physical Therapy Specialty?

Y

4.2. If a Primary Care Specialty was offered by the American Board of Physical Therapy Specialties, would you apply for and take the certification exam?

Definitely

Yes

Possibly

Yes Not

sure

Probably

Not

Definitely

Not

This Question is Conditionally Shown if: (4.2 = Probably Not OR 4.2 = Definitely Not)

4.3. You answered the above question *Probably Not* or *Definitely Not*. What are your reasons? (May select more than one answer)

Too expensive

Don't feel it would help me professionally

Don't think it is a unique specialty

Other _____

4.4. What age patients do you see as a Primary Care physical therapist? Please indicate by percentages for a total of 100%.

Pediatric (0-12 years) _____

Adolescent (13-18 years) _____

Adult (19-64 years) _____

Geriatric (65 years plus) _____

4.5. As a Primary Care provider, what is your caseload by percentage? Please indicate by percentages for a total of 100%.

Cardiovascular and Pulmonary _____

Geriatrics _____

Pediatrics _____

Neurology _____

Oncology _____

Orthopedics _____

Sports Medicine _____

Women's Health _____

Wound Care _____

4.6. How many primary care patients do you see in a typical week?

4.7. What is the average number of visits per episode of care for your primary care patients?

4.8. Primary Care often includes referring patients to other disciplines and/or specialists. For patients who you refer, please indicate by percentage where you refer patients: (Total should equal 100%.) Other physical therapist who are specialists in different areas

Physician, nurse practitioner, or physician's assistant for follow up

Physician, nurse practitioner, or physician's assistant requesting imaging or other tests

Board certified medical specialists (eg orthopaedic surgeons, neurologists, neurosurgeons, etc.)

Other _____

4.8.1. If you indicated "other" above, please specify:

4.9. How much does each of the following factors influence your clinical decision making in Primary Care physical therapy? Please indicate by percentages for a total of 100%.

Published Clinical practice guidelines _____

Peer Reviewed Evidence _____

Patient preferences _____

Entry level physical therapist education _____

Post professional physical therapist education _____

Clinical experience _____

Continuing Education short courses _____

Mentoring experiences _____
Clinical outcomes data (e.g. comparing my patient outcomes to patient outcomes reported in the literature) _____

4.9.1. Which of the following MOST influenced your development of advanced competencies in Primary Care clinical skills?

- Self study
- Inservice/peer
- interaction Continuing
- education Mentoring
- Graduate
- program(s) Clinical
- experience
- Other _____

4.10. Please indicate the percentages of your time spent in each of the following types of professional activities. Please indicate by percentages for a total of 100%.

Direct primary care physical therapy patient/client management

Direct patient/client management other than primary care physical therapy

Consultation _____
Administration/management _____
Advocacy _____
Clinical teaching _____
Academic teaching _____
Research _____
Other _____

4.10.1. If you indicated "other" above, please specify:

Please click SAVE to save your responses.

(End of Page 13)

This Page is Conditionally Shown if: ((P1.1 = Yes OR P1.1 = Maybe/Somewhat) AND (P2.1 = Yes) AND (P3 = Yes))

4.11 . What percentage of your time do you carry out your professional responsibilities in the following practice settings? Please indicate by percentages for a total of 100%.

Acute care/urgent care clinic _____
Hospital emergency department _____
Health system or hospital based outpatient facility or clinic _____

Private outpatient office or group practice _____
Patient's home/home care _____
Academic Institution (post-secondary) _____
Administration _____
Health and Wellness Facility _____
Occupational Health/Industry _____
Other _____

4.11.1. If you indicated "other" above, please specify:

4.12. Are you currently an ABPTS board certified

specialist? Yes

No

This Question is Conditionally Shown if: (4.12 = Yes)

4.13. Which Specialty(ies) and in what year(s) were you initially certified?

Select if you are certified in this area.

Cardiovascular and Pulmonary	<input type="checkbox"/>
Clinical Electrophysiology	<input type="checkbox"/>
Geriatrics	<input type="checkbox"/>
Pediatrics	<input type="checkbox"/>
Neurology	<input type="checkbox"/>
Orthopaedics	<input type="checkbox"/>
Sports Medicine	<input type="checkbox"/>
Women's Health	<input type="checkbox"/>
Oncology	<input type="checkbox"/>

Year of Initial certification

Cardiovascular and Pulmonary _____

Clinical Electrophysiology _____

Geriatrics _____

Pediatrics _____

Neurology _____

Orthopaedics _____

Sports Medicine _____

Women's Health _____

Oncology _____

4.14. What was your first (entry-level) physical therapist degree, prior to taking the licensure

- exam? Baccalaureate degree
- Post baccalaureate
- certificate Master's degree
- DPT
- Other (please specify) _____

4.15. What is the highest earned degree (or degrees) you hold in any area of study? (Select

- only one.) Baccalaureate degree
- Master's degree
- PhD (or equivalent, e.g. EdD or ScD) DPT
- tDPT
- PhD (or equivalent) and DPT
- PhD (or equivalent) and tDPT
- Other (please specify) _____

4.15.1. How many years have you been practicing as a physical therapist?

- <1 years
- 1-3 years
- 4-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 21-30 years
- 31+ years

4.15.2. How many years have you been practicing as a primary care physical therapist?

- <1 years
- 1-3 years
- 4-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 21-30 years
- 31+ years

4.15.3. Have you served as a uniform services or federal health care physical therapist?

-

4.16. In which of the following demographic settings do you primarily

- practice? Urban
- Rural
- Suburban

4.17. Using a total of 35 or more hours per week (at your primary position) as the definition of “full-time”, which one of the following describes your current employment status?

- Full-time salaried
- Part-time salaried
- Full-time self employed
- Part-time self employed
- Full-time hourly
- Part-time hourly
- Retired
- Unemployed/not seeking work
- Unemployed/seeking full-time employment
- Unemployed/seeking part-time employment

4.18. Please indicate the state in which you most frequently practice.

- AL
- AK
- AZ
- AR
- CA
- CO
- CT
- DE
- DC
- FL
- GA
- HI
- ID
- IL
- IN
- IA
- KS
- KY
- LA
- ME
- MD
- MA
- MI

- MN
- MS
- MO
- MT
- NE
- NV
- NH
- NJ
- NM
- NY
- NC
- ND
- OH
- OK
- OR
- PA
- RI
- SC
- SD
- TN
- TX
- UT
- VT
- VA
- WA
- WV
- WI
- WY
- Other _____

- 4.19.** Please indicate your race/ethnic origin:
- American Indian or Alaskan Native
 - Asian
 - African American or Black (Not of Hispanic origin)
 - White (Not of Hispanic origin)
 - Hispanic/Latino
 - Pacific Islander or Native Hawaiian Other _____

- 4.20.** Please indicate your sex:
- Female
 - Male

4.21. Please indicate your age in years at your last birthday:

4.22. This specialty is defined as “advanced expertise to practice across the lifespan and both

evaluate and treat clients across a wide spectrum of health conditions.” Which of the following names do you think best describes this specialty?

Primary Care Physical Therapy

Advanced General Practice Physical Therapy

(End of Page 14)

This Text Block is Conditionally Shown if: (P3 = Yes)

Thank you for completing this important survey. We appreciate your time and attention. Select “submit survey” to submit your data.

This Text Block is Conditionally Shown if: ((P1.1 = No) OR(P2.1 = No) OR(P3 = No))

Your answers have been collected and it appears that you do not need to complete this survey. Thank you for your input. Select “submit survey” to submit your data.

(If you feel you received this message by mistake, and you consider yourself a specialist in Primary Care and are willing to complete the survey, please email research-dept@apta.org and we can send you another link.)

(End of Page 15)

APPENDIX D: Practice Analysis Survey Raw Data (2018)

Primary Care Physical Therapy: Description of Specialty Practice

Validation Number of Responses Analyzed: 617

Section 4 - Examination Content Outline

1. Please indicate what percentage of each component should be represented in a future certification exam. Your responses should total 100%. (Anatomy and Physiology)
(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	40
Sum	2228
Mean	10.31
Median	10.00
Mode	10.00
Standard Deviation	6.03
Valid Responses	216
Total Responses	216

1. Please indicate what percentage of each component should be represented in a future certification exam. Your responses should total 100%. (Clinical Science)
(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	25
Sum	1945
Mean	9.00
Median	10.00
Mode	10.00
Standard Deviation	4.30
Valid Responses	216
Total Responses	216

1. Please indicate what percentage of each component should be represented in a future certification exam. Your responses should total 100%. (Behavioral Science)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	30
Sum	1497
Mean	6.93
Median	5.00
Mode	5.00
Standard Deviation	3.68
Valid Responses	216
Total Responses	216

1. Please indicate what percentage of each component should be represented in a future certification exam. Your responses should total 100%. (Medical and Surgical Interventions)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	25
Sum	1811
Mean	8.38
Median	10.00
Mode	10.00
Standard Deviation	4.02
Valid Responses	216
Total Responses	216

1. Please indicate what percentage of each component should be represented in a future certification exam. Your responses should total 100%. (Primary Care Considerations)
(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	50
Sum	2917
Mean	13.50
Median	11.00
Mode	10.00
Standard Deviation	6.46
Valid Responses	216
Total Responses	216

1. Please indicate what percentage of each component should be represented in a future certification exam. Your responses should total 100%. (Critical Inquiry for Evidence Based Practice/Professional Roles and Responsibilities)
(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	20

Sum	1939
Mean	8.98
Median	10.00
Mode	10.00
Standard Deviation	4.38
Valid Responses	216
Total Responses	216

1. Please indicate what percentage of each component should be represented in a future certification exam. Your responses should total 100%. (Evaluation/Examination)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	5
Maximum	50
Sum	3572
Mean	16.54
Median	15.00
Mode	15.00
Standard Deviation	5.70
Valid Responses	216
Total Responses	216

1. Please indicate what percentage of each component should be represented in a future certification exam. Your responses should total 100%. (Diagnosis/Prognosis)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	30
Sum	2939
Mean	13.61
Median	15.00



Mode	10.00
Standard Deviation	4.98
Valid Responses	216
Total Responses	216

1. Please indicate what percentage of each component should be represented in a future certification exam. Your responses should total 100%. (Intervention/Outcomes)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	30
Sum	2752
Mean	12.74
Median	11.00
Mode	10.00
Standard Deviation	4.94
Valid Responses	216
Total Responses	216

Section 5 - Demographic Information

4.1. Are you in favor of establishing a Primary Care Physical Therapy Specialty? (Respondents could only choose a **single** response)

Response	20% 40% 60% 80 100 % %	Frequency	Count
Yes		88.8%	199
No		11.2%	25
Not Answered			6
Valid Responses			224
Total Responses			230

4.2. If a Primary Care Specialty was offered by the American Board of Physical Therapy Specialties, would you apply for and take the certification exam?

(Respondents could only choose a **single** response)

Response	20% %	40%	60%	80% %	100% %	Frequency	Count
Definitely Yes						20.4%	46
Possibly Yes						51.6%	116
Not sure						11.6%	26
Probably Not						12.0%	27
Definitely Not						4.4%	10
Not Answered							5
Valid Responses							225
Total Responses							230

4.3. You answered the above question Probably Not or Definitely Not. What are your reasons? (May select more than one answer)

(Respondents were allowed to choose **multiple** responses)

Response	20% %	40%	60%	80% %	100% %	Frequency	Count
Too expensive						29.7%	11
Don't feel it would help me professionally						51.4%	19
Don't think it is a unique specialty						40.5%	15
Other						51.4%	19
Valid Responses							37
Total Responses							37

4.3. You answered the above question Probably Not or Definitely Not. What are your reasons? (May select more than one answer)

Response
Patients and peers don't understand what specialties are.
Currently hold two other Board Certifications
Looking to retire in next 5 years
All DPT graduates should be trained to work in primary care at entry level.

Already have OCS and don't feel it would be necessary in my case
The other specialties fulfill the their specific need. Primary Care should be baseline practice for everyone keeping up with their CEU's.
I live in a rural area, and predict it would be hard to meet the requirements. And I am at the end of my career in PT and may start moving to parttime in the next 5 years.
We need to stop being our own barrier to being recognized as a primary care musculoskeletal expert. If we don't leave school with the knowledge we need, then reconsider the program being offered.
I don't understand the drive to make this a specialty. It's not clear what the practice setting would be. It seems that this is just another "pyramid scheme" to required monetary gains for little clinical application; more effort should go into CEUs
Personally nearing retirement age, but support the concept as I have been practicing for 30+ years in a rural environment with clients of all ages and conditions.
already GCS and Lymphedema certified...I have to draw the line somewhere plus gets expensive
Currently have 2 other board certifications.
would choose neuro or geriatric first, would need assist financially as well
Will retire before you get it done
I am nearing the end of my career my success has been on my outcomes and word of mouth not certification or letters after my name
The cost does not support a good end of career choice (2 years to retirement)
I am about to retire
I'm too old to bother

4.4. What age patients do you see as a Primary Care physical therapist? Please indicate by percentages for a total of 100%. (Pediatric (0-12 years))
(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	75
Sum	1184
Mean	5.46
Median	5.00
Mode	5.00

Standard Deviation	8.97
Valid Responses	217
Total Responses	217

4.4. What age patients do you see as a Primary Care physical therapist? Please indicate by percentages for a total of 100%. (Adolescent (13-18 years))
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	35
Sum	2363
Mean	10.89
Median	10.00
Mode	10.00
Standard Deviation	7.26
Valid Responses	217
Total Responses	217

4.4. What age patients do you see as a Primary Care physical therapist? Please indicate by percentages for a total of 100%. (Adult (19-64 years))
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	5
Maximum	100
Sum	9759
Mean	44.97
Median	45.00
Mode	40.00
Standard Deviation	17.93
Valid Responses	217
Total Responses	217

4.4. What age patients do you see as a Primary Care physical therapist? Please indicate by percentages for a total of 100%. (Geriatric (65 years plus))
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	90
Sum	8394
Mean	38.68
Median	40.00
Mode	50.00
Standard Deviation	18.30
Valid Responses	217
Total Responses	217

4.5. As a Primary Care provider, what is your caseload by percentage? Please indicate by percentages for a total of 100%. (Cardiovascular and Pulmonary)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	50
Sum	1424
Mean	6.59
Median	5.00
Mode	0.00
Standard Deviation	7.78
Valid Responses	216
Total Responses	216

4.5. As a Primary Care provider, what is your caseload by percentage? Please indicate by percentages for a total of 100%. (Geriatrics)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	75
Sum	4878
Mean	22.58
Median	20.00
Mode	20.00
Standard Deviation	14.98
Valid Responses	216
Total Responses	216

4.5. As a Primary Care provider, what is your caseload by percentage? Please indicate by percentages for a total of 100%. (Pediatrics)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	88
Sum	931
Mean	4.31
Median	2.00
Mode	0.00
Standard Deviation	9.22
Valid Responses	216
Total Responses	216

4.5. As a Primary Care provider, what is your caseload by percentage? Please indicate by percentages for a total of 100%. (Neurology)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	50
Sum	2278

Mean	10.55
Median	10.00
Mode	10.00
Standard Deviation	8.06
Valid Responses	216
Total Responses	216

4.5. As a Primary Care provider, what is your caseload by percentage? Please indicate by percentages for a total of 100%. (Oncology)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	25
Sum	632
Mean	2.94
Median	1.00
Mode	0.00
Standard Deviation	3.98
Valid Responses	215
Total Responses	215

4.5. As a Primary Care provider, what is your caseload by percentage? Please indicate by percentages for a total of 100%. (Orthopedics)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	5
Maximum	95
Sum	8111
Mean	37.55
Median	35.00
Mode	20.00
Standard Deviation	19.31
Valid Responses	216
Total Responses	216

4.5. As a Primary Care provider, what is your caseload by percentage? Please indicate by percentages for a total of 100%. (Sports Medicine)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	50
Sum	2140
Mean	9.95
Median	10.00
Mode	10.00
Standard Deviation	9.47
Valid Responses	215
Total Responses	215

4.5. As a Primary Care provider, what is your caseload by percentage? Please indicate by percentages for a total of 100%. (Women's Health)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	85
Sum	586
Mean	2.71
Median	0.00
Mode	0.00
Standard Deviation	7.16
Valid Responses	216
Total Responses	216

4.5. As a Primary Care provider, what is your caseload by percentage? Please indicate by percentages for a total of 100%. (Wound Care)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	85
Sum	620
Mean	2.88
Median	0.00
Mode	0.00
Standard Deviation	7.25
Valid Responses	215
Total Responses	215

4.6.

4.7. How many primary care patients do you see in a typical week? (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	300
Sum	6535
Mean	31.12
Median	30.00
Mode	30.00
Standard Deviation	28.11
Valid Responses	210
Total Responses	210

4.8. What is the average number of visits per episode of care for your primary care patients? (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	60
Sum	1841
Mean	8.81
Median	8.00
Mode	12.00
Standard Deviation	7.30
Valid Responses	209
Total Responses	209

4.9. Primary Care often includes referring patients to other disciplines and/or specialists. For patients who you refer, please indicate by percentage where you refer patients: (Total should equal 100%.) (Other physical therapist who are specialists in different areas)
(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	90
Sum	2887
Mean	13.88
Median	10.00
Mode	10.00
Standard Deviation	17.23
Valid Responses	208
Total Responses	208

4.8. Primary Care often includes referring patients to other disciplines and/or specialists. For patients who you refer, please indicate by percentage where you refer patients: (Total should equal 100%.) (Physician, nurse practitioner, or physician's assistant for follow up)
(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0

Maximum	90
Sum	6359
Mean	30.43
Median	25.00
Mode	25.00
Standard Deviation	18.89
Valid Responses	209
Total Responses	209

4.8. Primary Care often includes referring patients to other disciplines and/or specialists. For patients who you refer, please indicate by percentage where you refer patients: (Total should equal 100%.) (Physician, nurse practitioner, or physician's assistant requesting imaging or other tests) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	75
Sum	4219
Mean	20.19
Median	20.00
Mode	10.00
Standard Deviation	14.74
Valid Responses	209
Total Responses	209

4.8. Primary Care often includes referring patients to other disciplines and/or specialists. For patients who you refer, please indicate by percentage where you refer patients: (Total should equal 100%.) (Board certified medical specialists (eg orthopaedic surgeons, neurologists, neurosurgeons, etc.)) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	75

Sum	5645
Mean	27.01
Median	25.00
Mode	25.00
Standard Deviation	16.42
Valid Responses	209
Total Responses	209

4.8. Primary Care often includes referring patients to other disciplines and/or specialists. For patients who you refer, please indicate by percentage where you refer patients: (Total should equal 100%.) (Other)

(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	100
Sum	1790
Mean	8.69
Median	0.00
Mode	0.00
Standard Deviation	17.16
Valid Responses	206
Total Responses	206

4.8.1. If you indicated “other” above, please specify:

Response
Mental or behavior health, community programs
CHT, exercise physiologist
All of the patients are referred to my team at our critical access hospital.
Chiropractors, personal trainers, athletic trainers, case workers.
Nutritionist, recreation or fitness facility, home health agency, medical supplier

Counselor, case manager
cranio sacral therapist
Gym for continued exercise. Wellness clinics.
Other - Mental health

Physical therapy is more of a triage in our setting. Manage and treat in 1-2 sessions, and those that will require more get referred to "traditional outpatient PT". As we manage those referrals, quality of patients sent down to regular PT and quality of referrals is much better. But we aren't referring to a different specialty of PT than our own, just that Primary Care is more designed for triaging and shorter visits. Most patients fall into this category, so it's ideal!

interdisciplinary teams specializing in various areas (i.e. amputee care, wound care, complex pain management, weight loss, etc.)

Behavior Health; Nutrition

Emergency room

Chiropractor, massage therapist, Strength and Conditioning Specialist

Case management

Occupational therapist

Social workers, Discharge planners, rehab liaison

Dietician, Diabetic educator, Social Work, Mental Health Counselor, Exercise Specialist

Mental health, massage therapists, acupuncture, personal trainers

massage, acupuncturist, naturopath, psychologist

occupational therapists, speech therapist, vocational counselors, rehab psychologists, neuro-psych services, neuro-ophthamologists

Dietician, psychology, OT, social worker etc..

Behaviorist

Functional Medicine Physicians

Audiology, Pharmacy, Dietetics, Social Services/Resources

orthotist/prosthetist

Orthotist, optometrist, dentist, podiatrist, Diabetes educator, nutritionist, massage therapist, acupuncturist

behavioral health, mental health, psychology

As a military PT, I refer directly for radiology or other special testing (EMG/NCS, etc.)

Acupuncture, massage, yoga, pilates

Dietitian, Wellness Center, Native Medicine

Most patients are seen with their pcp and myself so there is no need to follow up with other providers. Mostly

they are evaluated on the same day by me, given a HEP and sent home.
Orthotists
residents in training
Naturopathic Doctor
Social Work/ Additional Patient Resources
Social workers, occupational therapists, wound care specialists, respiratory therapists, speech/language pathologists
Fitness or personal trainers; gym memberships; Weight Watchers or other reputable weight loss support groups; smoking cessation clinics; diabetic education classes
Chiropractors
Optometry, occupational therapy, speech language pathology, behavioral health
occupational therapy,
rn
Urgent care or ED; I often educate patients about the importance of establishing a relationship with a primary care physician and help them to find a primary care physician that accepts their insurance, meets their preferences for gender, MD vs DO and style of practice, or will help them find a new doctor if theirs retires, moves, or no longer takes their insurance - so I often will refer patients to new primary care physicians who previously did not have a PCP and sought care only from an urgent care or the ED.
Nutrition consult, Neuropathic doctor, chiropractic, massage, yoga, pilates
Occupational therapy, Speech therapy
nutritionist
Chiropractic or Exercise Physiologist
social work, OT, ST, RN case manager, bereavement counselor
NA
Physical Medicine and Rehab
Mental Health Provider
Hospitalist, Social work
Mental health, psych
Behavioral Health/MSW, Optometrist, SLP/audiologist, Dietician
Chiropractor, personal trainer, massage therapist

Chiropractic, massage, acupuncture
To long of a survey
orthotist/ prosthetist
Dentist (TMJ), optometrist (for post-concussive), psychologist/social worker, massage therapy, chiropractor, dietician.
acupuncture, massage therapy
social services
Orthotist. Social service or psychological services. Massage therapists.
No referrals are made directly by the PT's in my facility.
Dentist/orthodontist/oral surgeon
Chiropractor
orthotists, speech therapists, nutrition therapist
Trainer or behavioral therapist
Speech therapy, occupational therapy, dietician, vocational rehab, social work/case management
counseling, sex therapist, OT. ST
orthotist
Occupational therapy, Speech therapy, Wellness Center or Local community programs for continuation of home program.
Gastroenterology, massage therapy, acupuncturist.
Other areas such as optometrist, massage therapist, dentist, ect..
Chiropractors, acupuncturist, nutritionist, psychologist
Fitness professionals, nutritionists or dieticians, and psychologists.
Nutritionist, personal trainer, Holistic Health practitioner.

4.9. How much does each of the following factors influence your clinical decision making in Primary Care physical therapy? Please indicate by percentages for a total of 100%. (Published Clinical practice guidelines)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	50
Sum	2185
Mean	10.87
Median	10.00
Mode	10.00
Standard Deviation	8.24
Valid Responses	201
Total Responses	201

4.9. How much does each of the following factors influence your clinical decision making in Primary Care physical therapy? Please indicate by percentages for a total of 100%. (Peer Reviewed Evidence) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	60
Sum	2301
Mean	11.45
Median	10.00
Mode	10.00
Standard Deviation	9.31
Valid Responses	201
Total Responses	201

4.9. How much does each of the following factors influence your clinical decision making in Primary Care physical therapy? Please indicate by percentages for a total of 100%. (Patient preferences) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	39
Sum	2092
Mean	10.41
Median	10.00
Mode	10.00
Standard Deviation	7.41
Valid Responses	201
Total Responses	201

4.9. How much does each of the following factors influence your clinical decision making in Primary Care physical therapy? Please indicate by percentages for a total of 100%. (Entry level physical therapist education) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	100
Sum	1591
Mean	7.92
Median	5.00
Mode	0.00
Standard Deviation	10.26
Valid Responses	201
Total Responses	201

4.10. How much does each of the following factors influence your clinical decision making in Primary Care physical therapy? Please indicate by percentages for a total of 100%. (Post professional physical therapist education)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	43
Sum	2804
Mean	13.95
Median	10.00
Mode	10.00
Standard Deviation	9.95
Valid Responses	201
Total Responses	201

4.9. How much does each of the following factors influence your clinical decision making in Primary Care physical therapy? Please indicate by percentages for a total of 100%. (Clinical experience)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	92
Sum	5187
Mean	25.81
Median	25.00
Mode	20.00
Standard Deviation	14.07
Valid Responses	201
Total Responses	201

4.9. How much does each of the following factors influence your clinical decision making in Primary Care physical therapy? Please indicate by percentages for a total of 100%. (Continuing Education short courses)

(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	50
Sum	1806
Mean	8.99
Median	8.00
Mode	5.00
Standard Deviation	8.25
Valid Responses	201
Total Responses	201

4.9. How much does each of the following factors influence your clinical decision making in Primary Care physical therapy? Please indicate by percentages for a total of 100%. (Mentoring experiences) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	40
Sum	1106.5
Mean	5.50
Median	5.00
Mode	5.00
Standard Deviation	5.71
Valid Responses	201
Total Responses	201







4.9. How much does each of the following factors influence your clinical decision making in Primary Care physical therapy? Please indicate by percentages for a total of 100%. (Clinical outcomes data (e.g. comparing my patient outcomes to patient outcomes reported in the literature))

(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	25
Sum	1027.5
Mean	5.11
Median	5.00
Mode	0.00
Standard Deviation	4.96
Valid Responses	201
Total Responses	201

4.9.1. Which of the following **MOST** influenced your development of advanced competencies in Primary Care clinical skills?

(Respondents could only choose a **single** response)

Response	20 %	40%	60%	80 %	100 %	Frequency	Count
Self study						11.8%	25
Inservice/peer interaction						0.0%	0
Continuing education						19.9%	42
Mentoring						4.3%	9
Graduate program(s)						10.9%	23
Clinical experience						49.8%	105
Other						3.3%	7
Not Answered							19
						Valid Responses	211
						Total Responses	230

4.10. Please indicate the percentages of your time spent in each of the following types of professional activities. Please indicate by percentages for a total of 100%. (Direct primary care physical therapy patient/client management)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	100
Sum	10114
Mean	50.07
Median	50.00
Mode	70.00
Standard Deviation	29.38
Valid Responses	202
Total Responses	202

4.10. Please indicate the percentages of your time spent in each of the following types of professional activities. Please indicate by percentages for a total of 100%. (Direct patient/client management other than primary care physical therapy)
 (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	95
Sum	3393
Mean	16.80
Median	10.00
Mode	0.00
Standard Deviation	21.82
Valid Responses	202
Total Responses	202

4.10. Please indicate the percentages of your time spent in each of the following types of professional activities. Please indicate by percentages for a total of 100%. (Consultation)
(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	90
Sum	1152
Mean	5.70
Median	5.00
Mode	0.00
Standard Deviation	9.00
Valid Responses	202
Total Responses	202

4.10. Please indicate the percentages of your time spent in each of the following types of professional activities. Please indicate by percentages for a total of 100%.
(Administration/management) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	80
Sum	2548
Mean	12.61
Median	5.00
Mode	0.00
Standard Deviation	17.72
Valid Responses	202
Total Responses	202

4.10. Please indicate the percentages of your time spent in each of the following types of professional activities. Please indicate by percentages for a total of 100%. (Advocacy)
(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	25
Sum	551
Mean	2.73
Median	0.00
Mode	0.00
Standard Deviation	4.15
Valid Responses	202
Total Responses	202

4.10. Please indicate the percentages of your time spent in each of the following types of professional activities. Please indicate by percentages for a total of 100%. (Clinical teaching)
(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	-5
Maximum	30

Sum	940
Mean	4.65
Median	3.00
Mode	0.00
Standard Deviation	5.94
Valid Responses	202
Total Responses	202

4.10. Please indicate the percentages of your time spent in each of the following types of professional activities. Please indicate by percentages for a total of 100%. (Academic teaching)

(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	90
Sum	962
Mean	4.76
Median	0.00
Mode	0.00
Standard Deviation	13.20
Valid Responses	202
Total Responses	202

4.10. Please indicate the percentages of your time spent in each of the following types of professional activities. Please indicate by percentages for a total of 100%. (Research)

(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	30
Sum	375
Mean	1.86
Median	0.00

Mode	0.00
Standard Deviation	4.55
Valid Responses	202
Total Responses	202

4.10. Please indicate the percentages of your time spent in each of the following types of professional activities. Please indicate by percentages for a total of 100%. (Other) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	20
Sum	165
Mean	0.82
Median	0.00
Mode	0.00
Standard Deviation	3.16
Valid Responses	202
Total Responses	202

4.10.1. If you indicated “other” above, please specify:

Response
volunteering for my professional associations or with students
I help develop PTA programs at community colleges.
Mentorship programs
Spreading this program to other VA hospitals in the midwest
*** not sure of the definition of advocacy. if this is patient advocacy/case management/service coordination, then 15% is accurate. if this is profession advocacy, then it should be 0% with 15% under ‘other’ with this definition. also, administration (I think) refers to administration of the clinic services within primary care, not patient care...
Site coordinator for clinical education
Educational Doctorate work
military-specific clinical requirements
pro bono service in underserved community with screening
Employee education
My “primary care’ physical therapy is actually at an acute care hospital -- in our rural area this seems to be when the patient is identified with a need.

NA
Program development for Emergency Department
NA
Most of my research time is spent outside of work hours.
this took to long
One of the most time consuming areas for me, as a clinician, is documentation. I primarily practice in the outpatient setting and find that I must spend hours of personal time devoted to documentation justifying the need for physical therapy services.
Adjunct faculty work other than teaching - admissions selection committee.
Outreach
Self education and researching individual cases as needed.
Continuing education teaching

4.11 . What percentage of your time do you carry out your professional responsibilities in the following practice settings? Please indicate by percentages for a total of 100%. (Acute care/urgent care clinic) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	100
Sum	2720
Mean	12.65
Median	0.00
Mode	0.00
Standard Deviation	26.29
Valid Responses	215
Total Responses	215

4.11 . What percentage of your time do you carry out your professional responsibilities in the following practice settings? Please indicate by percentages for a total of 100%. (Hospital emergency department)

(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	75
Sum	378
Mean	1.76
Median	0.00
Mode	0.00
Standard Deviation	8.17
Valid Responses	215
Total Responses	215

4.11 . What percentage of your time do you carry out your professional responsibilities in the following practice settings? Please indicate by percentages for a total of 100%. (Health system or hospital based outpatient facility or clinic)

(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	100
Sum	8343
Mean	38.80
Median	15.00
Mode	0.00
Standard Deviation	41.70
Valid Responses	215
Total Responses	215

4.11 . What percentage of your time do you carry out your professional responsibilities in the following practice settings? Please indicate by percentages for a total of 100%. (Private outpatient office or group practice)

(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	100
Sum	4863
Mean	22.62
Median	0.00
Mode	0.00
Standard Deviation	37.59
Valid Responses	215
Total Responses	215

4.11 . What percentage of your time do you carry out your professional responsibilities in the following practice settings? Please indicate by percentages for a total of 100%. (Patient's home/home care) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	100
Sum	989
Mean	4.60
Median	0.00
Mode	0.00
Standard Deviation	15.61
Valid Responses	215
Total Responses	215

4.11 . What percentage of your time do you carry out your professional responsibilities in the following practice settings? Please indicate by percentages for a total of 100%. (Academic Institution (post- secondary)) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	100

Sum	1175
Mean	5.47
Median	0.00
Mode	0.00
Standard Deviation	17.20
Valid Responses	215
Total Responses	215

4.11 . What percentage of your time do you carry out your professional responsibilities in the following practice settings? Please indicate by percentages for a total of 100%. (Administration) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	100
Sum	1402
Mean	6.52
Median	0.00
Mode	0.00
Standard Deviation	17.20
Valid Responses	215
Total Responses	215

4.11 . What percentage of your time do you carry out your professional responsibilities in the following practice settings? Please indicate by percentages for a total of 100%. (Health and Wellness Facility) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	20
Sum	204
Mean	0.95
Median	0.00

Mode	0.00
Standard Deviation	3.00
Valid Responses	215
Total Responses	215

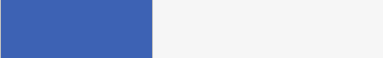

4.11 . What percentage of your time do you carry out your professional responsibilities in the following practice settings? Please indicate by percentages for a total of 100%. (Occupational Health/Industry) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	100
Sum	344
Mean	1.60
Median	0.00
Mode	0.00
Standard Deviation	8.22
Valid Responses	215
Total Responses	215

4.11 . What percentage of your time do you carry out your professional responsibilities in the following practice settings? Please indicate by percentages for a total of 100%. (Other) (Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	0
Maximum	100
Sum	1082
Mean	5.03
Median	0.00
Mode	0.00
Standard Deviation	18.30
Valid Responses	215
Total Responses	215

4.12. Are you currently an ABPTS board certified specialist? (Respondents could only choose a **single** response)

Response	20% 40 %	60 %	80 %	100 %	Frequency	Count
Yes					39.6%	86
No					60.4%	131
Not Answered						5
Valid Responses						217
Total Responses						222


4.13. Which Specialty(ies) and in what year(s) were you initially certified? (Select if you are certified in this area.)
(Respondents could only choose a **single** response for each topic)

		Total
Cardiovascular and Pulmonary	Count	0
	% by Row	0.0%
Clinical Electrophysiology	Count	2
	% by Row	100.0%
Geriatrics	Count	13
	% by Row	100.0%
Pediatrics	Count	2
	% by Row	100.0%
Neurology	Count	4
	% by Row	100.0%
Orthopaedics	Count	60
	% by Row	100.0%




Sports Medicine	Count	10	10
	% by Row	100.0%	100.0%
Women's Health	Count	1	1
	% by Row	100.0%	100.0%
Oncology	Count	0	0
	% by Row	0.0%	100.0%
Total	Count	92	92
	% by Row	100.0%	100.0%

Note: A response of "1900" in question #4.13 indicates that the year of initial certification was not available.

4.13. Which Specialty(ies) and in what year(s) were you initially certified? (Year of Initial certification) (Cardiovascular and Pulmonary)
(Respondents were limited to **brief** text responses)

Response	20%	40%	60%	80%	100%	Frequency	Count
1900						100.0%	1
Valid Responses							1
Total Responses							1

4.13. Which Specialty(ies) and in what year(s) were you initially certified? (Year of Initial certification) (Clinical Electrophysiology)
(Respondents were limited to **brief** text responses)

Response	20%	40%	60%	80%	100%	Frequency	Count
1900						33.3%	1
2000						33.3%	1
2013						33.3%	1
Valid Responses							3
Total Responses							3

4.13. Which Specialty(ies) and in what year(s) were you initially certified? (Year of Initial certification) (Geriatrics)

(Respondents were limited to **brief** text responses)

Response	20% 40% 60% 80 100 % %	Frequency	Count
1900		14.3%	2
2000		7.1%	1
2006		7.1%	1
2012		7.1%	1
2014		7.1%	1
2015		14.3%	2
2016		35.7%	5
2018		7.1%	1
Valid Responses			14
Total Responses			14

4.13. Which Specialty(ies) and in what year(s) were you initially certified? (Year of Initial certification) (Pediatrics)

(Respondents were limited to **brief** text responses)

Response	20% 40% 60% 80 100 % %	Frequency	Count
1900		33.3%	1
2003		33.3%	1
2018		33.3%	1
Valid Responses			3
Total Responses			3










4.13. Which Specialty(ies) and in what year(s) were you initially certified? (Year of Initial certification) (Neurology)
 (Respondents were limited to **brief** text responses)

Response	20% 40% 60% 80 100 % %	Frequency	Count
2009		25.0%	1
2014		25.0%	1
2016		25.0%	1

2017		25.0%	1
Valid Responses			4
Total Responses			4

4.13. Which Specialty(ies) and in what year(s) were you initially certified? (Year of Initial certification) (Orthopaedics)
 (Respondents were limited to **brief** text responses)

Response	20% 40% 60% 80 100 % %	Frequency	Count
1900		5.2%	3
1994		1.7%	1
1995		1.7%	1
1997		1.7%	1
1998		3.4%	2
2000		1.7%	1
2002		3.4%	2
2003		5.2%	3
2004		1.7%	1
2005		1.7%	1
2006		1.7%	1
2007		5.2%	3
2008		5.2%	3
2009		3.4%	2

2010		1.7%	1
2011		5.2%	3
2012		5.2%	3
2013		5.2%	3
2014		10.3%	6
2015		8.6%	5
2016		12.1%	7
2017		1.7%	1
2018		6.9%	4
		Valid Responses	58
		Total Responses	58

4.13. Which Specialty(ies) and in what year(s) were you initially certified? (Year of Initial certification) (Sports Medicine)

(Respondents were limited to **brief** text responses)


Response	20%	40%	60%	80%	100%	Frequency	Count
1900						9.1%	1
1985						9.1%	1
2003						9.1%	1
2008						9.1%	1
2015						27.3%	3
2016						18.2%	2
2017						18.2%	2
Valid Responses						11	
Total Responses						11	

4.13. Which Specialty(ies) and in what year(s) were you initially certified? (Year of Initial certification) (Women's Health)

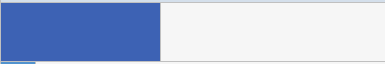
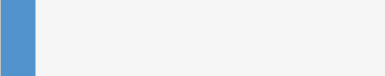

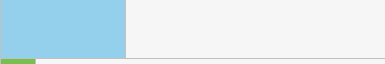
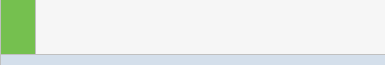
(Respondents were limited to **brief** text responses)

Response	20%	40%	60%	80%	100%	Frequency	Count
1900						50.0%	1
2015						50.0%	1
Valid Responses						2	
Total Responses						2	

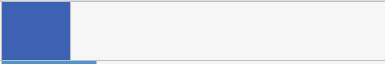
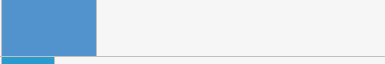
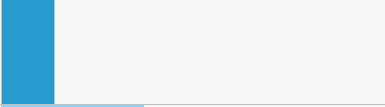
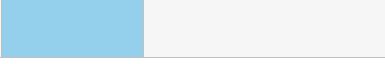
4.13. Which Specialty(ies) and in what year(s) were you initially certified? (Year of Initial certification) (Oncology)
 (Respondents were limited to **brief** text responses)


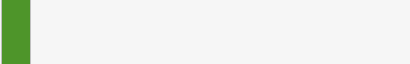
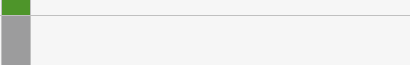
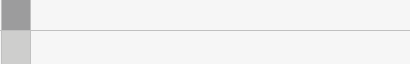
Response	20% 40% 60% 80 %	100 %	Frequency	Count
1900			100.0%	1
Valid Responses				1
Total Responses				1

4.14. What was your first (entry-level) physical therapist degree, prior to taking the licensure exam? (Respondents could only choose a **single** response)

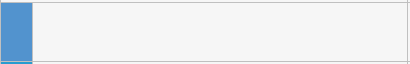
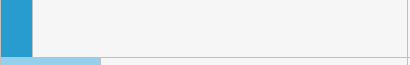
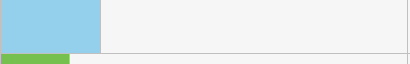
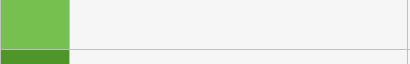
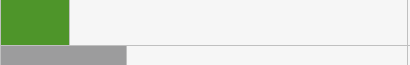
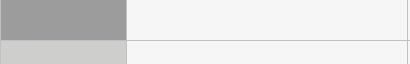
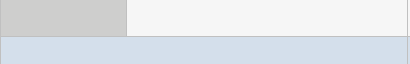
Response	20% 40% 60% 80 %	100 %	Frequency	Count
Baccalaureate degree			34.9%	76
Post baccalaureate certificate			3.7%	8
Master's degree			34.9%	76
DPT			25.7%	56
Other (please specify)			0.9%	2
Not Answered				4
Valid Responses				218
Total Responses				222

4.15. What is the highest earned degree (or degrees) you hold in any area of study? (Select only one.) (Respondents could only choose a **single** response)

Response	20 %	40% 60% 80 %	100 %	Frequency	Count
Baccalaureate degree				11.1%	24
Master's degree				18.0%	39
PhD (or equivalent, e.g. EdD or ScD)				6.9%	15
DPT				30.9%	67

tDPT		29.0%	63
PhD (or equivalent) and DPT		0.5%	1
PhD (or equivalent) and tDPT		1.8%	4
Other (please specify)		1.8%	4
Not Answered			5
Valid Responses			217
Total Responses			222

4.15.1. How many years have you been practicing as a physical therapist? (Respondents could only choose a **single response)**

Response	20 %	40%	60%	80 %	100 %	Frequency	Count
<1 years						0.0%	0
1-3 years						1.4%	3
4-5 years						2.8%	6
6-10 years						19.7%	43
11-15 years						11.9%	26
16-20 years						11.5%	25
21-30 years						27.5%	60
31+ years						25.2%	55
Not Answered							
Valid Responses							218
Total Responses							222

4.15.2. How many years have you been practicing as a primary care physical therapist? (Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
<1 years						3.2%	7
1-3 years						11.9%	26
4-5 years						9.6%	21
6-10 years						19.2%	42
11-15 years						8.7%	19
16-20 years						18.3%	40
21-30 years						14.2%	31
31+ years						15.1%	33
Not Answered							3
Valid Responses							219
Total Responses							222

4.15.3. Have you served as a uniform services or federal health care physical therapist? (Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Yes						17.9%	39
No						82.1%	179
Not Answered							4
Valid Responses							218
Total Responses							222

4.16. In which of the following demographic settings do you primarily practice? (Respondents could only choose a **single** response)

Response	20% 40% 60% 80 % 100 %	Frequency	Count
Urban		21.8%	47
Rural		54.2%	117
Suburban		24.1%	52
Not Answered			6
Valid Responses			216
Total Responses			222

4.17. Using a total of 35 or more hours per week (at your primary position) as the definition of “full- time”, which one of the following describes your current employment status? (Respondents could only choose a **single** response)























Response	20 % 40% 60% 80 % 100 %	Frequency	Count
Full-time salaried		56.6%	124
Part-time salaried		3.2%	7
Full-time self employed		8.2%	18
Part-time self employed		3.2%	7
Full-time hourly		19.2%	42
Part-time hourly		9.1%	20
Retired		0.5%	1

Unemployed/not seeking work		0.0%	0
Unemployed/seeking full-time employment		0.0%	0
Unemployed/seeking part-time employment		0.0%	0
Not Answered			3
Valid Responses			219
Total Responses			222

4.18. Please indicate the state in which you most frequently practice. (Respondents could only choose a **single** response)

Response	20% 40% 60% 80% 100%	Frequency	Count
AL		0.0%	0
AK		2.9%	6
AZ		2.0%	4
AR		0.5%	1
CA		4.4%	9
CO		5.9%	12
CT		0.5%	1
DE		0.0%	0
DC		0.0%	0
FL		1.5%	3
GA		2.0%	4
HI		0.0%	0
ID		1.0%	2
IL		2.9%	6
IN		2.5%	5
IA		5.4%	11
KS		2.0%	4
KY		2.9%	6
LA		0.0%	0

ME		0.0%	0
MD		1.0%	2
MA		0.5%	1
MI		0.5%	1
MN		2.5%	5

MS		0.5%	1
MO		1.5%	3
MT		2.9%	6
NE		4.4%	9
NV		1.0%	2
NH		1.0%	2
NJ		1.0%	2
NM		0.5%	1
NY		3.4%	7
NC		4.9%	10
ND		0.0%	0
OH		1.5%	3
OK		1.0%	2
OR		2.0%	4
PA		2.5%	5
RI		0.0%	0
SC		1.0%	2
SD		3.4%	7
TN		1.5%	3
TX		3.9%	8
UT		1.5%	3
VT		2.5%	5
VA		1.5%	3
WA		7.4%	15

WV		0.5%	1
WI		5.9%	12
WY		0.5%	1
Other		2.0%	4
Not Answered			18
		Valid Responses	204
		Total Responses	222

4.19 Please indicate your race/ethnic origin: (Respondents could only choose a **single** response)

Response	20% 40% 60% 80 100 % %	Frequency	Count
American Indian or Alaskan Native		0.0%	0
Asian		5.6%	12
African American or Black (Not of Hispanic origin)		0.9%	2
White (Not of Hispanic origin)		91.2%	197
Hispanic/Latino		1.4%	3
Pacific Islander or Native Hawaiian		0.5%	1
Other		0.5%	1
Not Answered			6
		Valid Responses	216
		Total Responses	222

4.19. Please indicate your sex:
(Respondents could only choose a **single** response)

Response	20% 40% 60% 80 100 % %	Frequency	Count
Female		57.7%	124
Male		42.3%	91
Not Answered			7
		Valid Responses	215

Total Responses 222

4.20. Please indicate your age in years at your last birthday:
(Respondents were limited to **brief** text responses)

Statistic	Value
Minimum	26
Maximum	72
Sum	10189
Mean	46.95
Median	47.00
Mode	32.00, 44.00
Standard Deviation	10.97
Valid Responses	217
Total Responses	217

4.21. This specialty is defined as “advanced expertise to practice across the lifespan and both evaluate and treat clients across a wide spectrum of health conditions.” Which of the following names do you think best describes this specialty?

(Respondents could only choose a **single** response)

Response	20%	40%	60%	80%	100%	Frequency	Count
Primary Care Physical Therapy						56.5%	122
Advanced General Practice Physical Therapy						43.5%	94
Not Answered							6
Valid Responses						216	
Total Responses						222	

APPENDIX E: Consultant Summary (2018)

Consultant Summary:

Practice Analysis for Primary Care Description of Specialty Practice (2018)

Introduction

This primary care specialty feasibility practice analysis was a result of an APTA 2017 [perspectives] paper on the Physical Therapists Roles on Primary Care Teams in response to RC 19-15 (a charged motion from APTA's House of Delegates in 2015). This practice analysis was funded and supported by APTA staff under the direction of Bill Boissonault, Executive Vice President for Education, APTA, and staff. APTA hired Jean Bryan Coe, PhD, DPT as a project consultant.

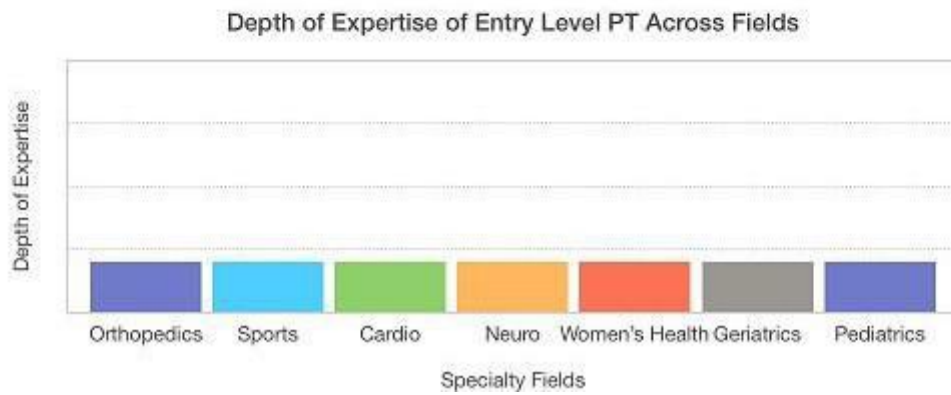
The survey items are based on the work of a Subject Matter Expert (SME) Group appointed by APTA to complete a practice analysis of the Primary Care Physical Therapy specialty. The nine SME members were selected based on their interest and practice experience as well as geographical and ethnic diversity. In addition to their own experiences, SME members solicited input prior to the meeting from respected professional colleagues as to what should be included in the description of specialty practice for Primary Care. In August 2017, 7 of 9 SME members had a two day on site meeting at APTA headquarters to develop a draft description of primary care specialty practice as the basis for the practice analysis survey. APTA staff (Bill Boissonault, Anita Bemis-Dougherty, PT, DPT, MAS, Vice President, Department of Practice; Hadiya Green Guerrero, PT, DPT, SCS, Senior Practice Specialist) and APTA Board Member Robert Rowe, PT, DPT, DMT, MHS also participated in the discussion and continued in SME discussions.

The analysis began with an in depth discussion as to the definition of the Primary Care Physical Therapist Specialist. The final agreed upon definition was:

An experienced physical therapist practitioner who:

- Instead of specializing and limiting practice to one area of physical therapy, has advanced expertise to practice across the lifespan to both evaluate and treat clients across a wide spectrum of health conditions.
- Has attained this experience through formal post professional education or through many years of experiential learning opportunities.
- May be working in a variety of settings including a rural setting where patient choices for physical therapist services are limited, an acute/urgent care or emergency department setting, a hospital based outpatient setting, or a private practice setting.
- Is practicing at a higher level of care (more efficiently and effectively), including a higher level of decision-making, than non-specialists are providing.

Although Primary Care Specialists may be ABPTS board certified in another specialty, they do not limit their practice to that area of specialization.”



Based on this definition, the SME Group identified specific knowledge areas, professional roles and responsibilities, and clinical practice dimensions of the Primary Care Specialist following the Patient/Client Management Model in the Guide to Physical Therapist Practice. Because of the defined practice across the lifespan and a broad spectrum of health conditions, the Group did review the existing ABPTS DSPs and used some of the same items. Following the onsite meeting, the SME Group further refined the practice analysis electronically using Google Docs and email as well as conference calls when needed. The practice analysis document served as the basis for the validation survey. This survey followed the survey format for the American Board of Physical Therapy Specialties in terms of organization as well as survey scales.

Methods Goal

The goal of the practice analysis was to validate the proposed Description of Advanced Clinical Practice in Primary Care.

Survey Development

Competency Statement Development

Prior to the first group meeting, with guidance from the consultant, the SME Group used electronic communication for work ahead assignments. Members were asked to carefully consider what it is that they, as a Specialist in Primary Care Physical Therapist, know and do at a higher level than the non-specialist. SME Group members were also encouraged to talk with their professional colleagues to garner their input concerning their primary care practice as well as emerging trends in the practice of primary care. The result of these discussions and subsequent review was the basis for the DSP revalidation/revision survey. Following the two-day meeting the SME group continued to discuss and refine the survey items through the use of Google docs, email and conference calls as needed.

Development of the Pilot Survey

The survey sections and scales were per ABPTS format. The actual survey items were developed and refined by consensus of the SME group. Contributing documents included the *Guide to Physical Therapist Practice* and its patient/client management mode. Further design and administration of the survey was per ABPTS Guidelines.

The first three (Yes/No) questions in the survey determined if the potential respondent was a primary care PT practicing at the self-defined level of a specialist. The questions were as follows:

4. Does the initial description of this new specialty describe your own clinical practice?
5. Based on the initial description of this new specialty, I consider myself to be practicing Primary Care Physical Therapy at the level of a Specialist.
6. I am willing to participate in this survey.

A No answer to any of these questions completed the survey for that

respondent. Respondents had to answer Yes to all three questions to proceed to the actual survey.

The survey contained five sections. Section 1 addressed Knowledge Areas expected of the cardiovascular and pulmonary specialist. Items were rated on three scales: Frequency on a 5-point Likert-type scale with 0 being *never* and 4 being *daily*; Importance on a 4-point Likert-type scale with 0 being *not important* and 3 being *very important*; and Level of Judgment on a similar 4-point scale with 0 as *do not use* and 3 as *analysis*. Section 2 dealt with professional roles and responsibilities, and Section 3 focused on practice expectations in patient/client management. Both sections 2 and 3 were rated on the same scales of frequency and importance, and an additional four point Level of Mastery scale, with 1 being Advanced Beginner and 4 being Expert. Section 4 asked about Examination Content for the proposed specialty and Section 5 contained demographic questions which mirrored other practice analysis surveys.

Pilot Testing

The purpose of the pilot survey was to ensure clarity of the survey questions and identify any new competencies that should be incorporated into the final survey. Although it would have shortened the survey and time commitment for respondents, since this was a new specialty and new DSP, the SME Group did not feel it would be appropriate to divide the survey by sections and have respondents only complete some of the sections. APTA research staff (Sarah Miller) uploaded the survey to the APTA survey tool and pilot testing was completed in the spring of 2018 with a small convenience sample of subject matter experts identified by the SME Group (N =25) as primary care specialists. Survey results (14 responses for a 56% response rate) and feedback in the form of written comments on the pilot survey resulted in only minimal editorial changes to the final survey.

Only three pilot respondents were practicing in a rural setting. The SME Group felt that this was likely due to the makeup of the convenience sample; however, because of this finding, the sampling plan for the final survey was changed to focus random sampling, in part, on APTA members in rural settings with 5 years of practice experience.

Especially since the pilot survey sample members had agreed ahead of time to complete the survey, the SME Group was concerned with the low response numbers. Had the SME group created a specialty that was not really mainstream? They didn't think so. Unlike other new ABPTS specialties, the Primary Care survey was not backed by an existing APTA Primary Care section- from which to draw support. This situation made identifying and recruiting prospective Primary Care Specialists to complete the survey much more challenging. As such, the SME Group was less concerned with response rate and focused on completed surveys.

The pilot survey also asked a question as to the naming of this new specialty.

Other potential choices included Advanced General Practitioner, Family Practice, and Primary Health Care PT. By far, Primary Care was the preferred name.

The pilot survey required an average of 90 (45-180 range) minutes to complete, as would be expected for a full survey. Again, the SME Group initially chose to administer the final survey as the entire survey rather than splitting the survey. Their rationale was that respondents should see the entire proposed DSP.

Final Survey Administration

In March 2018, the final on line survey was distributed electronically to 2000 PTs. This list included targeted groups of Federal Section members, Rural Health Special Interest Group members, the remainder of the convenience sample the SME Group identified for the pilot survey, and uniformed services PTs who self-identified they were willing to participate. However, the vast majority were randomly selected APTA members who were members of multiple sections (not counting education, research, or private practice).

ABPTS staff sent multiple follow up emails to non-respondents and to those who had partially completed the survey. The survey was closed in June 2018. Respondents were given an opportunity to call or e-mail the project coordinator or project consultant if they had questions about the survey. Fewer than 10 potential respondents called or emailed and their questions were related to eligibility to complete the survey. Results from that round of surveys were as follows:

- 146 answered NO to 1 of the first 3 questions and so skipped to the end
- 77 made it past the first 3 questions and completed the survey
- 116 made it past the first 3 questions, but had not completed the survey.

Review of the 116 non completer responses indicated that about 60 got past the first three questions, but didn't get into the meat of the survey. The remaining 56 pretty much completed whole survey sections before stopping the survey (30 stopped after Section 1, 20 after Section 2). Based on this information, the SME Group decided to include the data from the 56 incomplete surveys. The SME Group remained concerned with the overall low number of responses. Written comments indicated that the overall length of the survey was the basis for partial responses.

Based on that information, the Group made the difficult decision to split the survey and do a second fielding of the final survey. Respondents were randomly sent either Sections 1, 2, 4, and 5 or 3, 4 and 5. This was sent in September 2018 to another large random sample of APTA members (8,000). These individuals were totally random and not targeted in any way as practicing in Primary Care. Last, over the summer, staff generated a list of 140 individuals who had heard about the practice analysis survey and identified themselves as primary care providers and willing to participate. Many of these PTs heard about the survey via an APTA Blog that SME members wrote and managed. Links were sent to that third group in September. Again, potential responders and non-completers received multiple email reminders to complete

the survey.

The survey was closed 31 Oct 18.

The survey went to a total of 11,750 people. There were 1,166 responses for a response rate of 9.9%.

- 223 (2%) people answered “yes” to the 1st 3 questions and completed the survey.
- Of the 223, 146 completed the split survey
- 396 (3.4%) people answered “yes” to the 1st 3 questions and started but didn’t complete the survey. However, since most of the non-completing respondents stopped at the end of a section, the partial data was included in the data analysis.
- 514 people answered “no” to at least one of the 1st 3 questions which resulted in survey completion.
- 33 people answered “no” to at least one of the 1st 3 questions and but did not finish the third question so their survey was incomplete.

Data Analysis

At their first meeting, the SME group set a priori decision rules as follows: In Section 1 (Knowledge Areas), items would be included if at least 65% of respondents rated the item on Importance at a 2 or 3 (moderately or very important) and on Level of Judgment at a 2 or 3 (application or analysis). For Section 2 (Professional Practice Expectations: Professional Roles, Responsibilities and Values) and Section 3 (Practice Expectations, Patient/Client Management), items would be included in the DSP if at least 65% of the respondents rated the item on Importance at a 2 or 3 (moderately or very important) and on Level of Mastery at a 2 or 3 (proficient or expert skill level). Concerning Frequency, items would be included if at least 65% of respondents rated the item are at 3 or 4 level (daily or weekly). In all close cases, the SME group would come to consensus about keeping the item or eliminating the item. The rationale for eliminating an item was that the item is something that an entry-level PT and the specialist both use or perform, although it is not an item that distinguishes between the specialist and non-specialist.

Results:

A large number (83) of DSP items were flagged based on the previously agreed upon decision rules. The majority of the items were flagged due to low Frequency. Via conference call and subsequent email discussions, the SME group felt that the large majority of those items were items that were Important and used at high Levels of Judgement or Mastery but lower in Frequency related to situations that did not occur too often in the clinic such as emergency situations, and professional responsibilities such as advocacy or membership involvement. As long as the respondents rated the items as high in Importance and Judgement, Mastery, the SME group kept most of the items that were rated low on Frequency. The SME Group did make minor editorial changes to items that did not change in the meaning. The Group deleted a total of 13 items.

Section Four

Section Four of the survey solicited responses concerning an examination blueprint, identifying by percentages what topics/areas should be represented in a certification exam in the event that Primary Care eventually becomes a recognized specialty. One of the questions in Section Five concerning caseload by percentage across specialties will also help develop a certification exam (see below).

Section Five

Section Five of the Survey was Demographic questions. The SME Group reviewed the results carefully in light of their definition of Primary Care PT. While low numbers of respondents in rural settings was a concern from pilot testing, of the respondents 54.2% reported working in a rural setting. 40% reported being ABPTS board certified specialists (primarily Orthopedics). Concerning seeing patients across the lifespan, even though respondents reported only 5% of their patient load was pediatrics, after lengthy discussion, the SME Group decided to keep the pediatrics component as part of Primary Care PT. Similarly, for seeing patients across a wide spectrum of health conditions, the survey asked respondents to indicate their caseload by percentages and for some of the areas, the results were relatively small percentages. Again after lengthy discussion, the SME Group opted to keep the definition and decided that the different percentages of caseload could be used to help develop the Examination Blueprint.

From these results, it would appear that the sample of PC Specialists practice primarily in Geriatrics, Neurology, Orthopedics, and Sports Medicine. However, the survey results do indicate that they also treat cardiovascular and pulmonary, pediatric, oncology, and women's health patients.

Examination Blueprint

The survey results provide a basic examination blueprint according to broad topic areas and practice areas.

Conclusions

The end result of this process was the development and validation of a DSP for Primary Care Physical Therapy. The survey demographic results basically support the SME Group's definition of Primary Care.

The dedication of all SME Group members to the lengthy process and their careful reflection and discussion of each item was exceptional. The work put in by the SME Group displays their dedication to the practice and progression of physical therapy in the primary care field for today and in the future.

APPENDIX F: Supplemental Practice Analysis Survey (2022)

****Additions/changes from 2018 to 2022 survey highlighted in yellow.***

Survey Purpose:

If you are receiving this you have already completed a practice analysis survey for Primary Care (previously referred to as Family Practice Clinical Specialist). To ensure that a comprehensive scope is collected, there are some supplemental survey questions that need to be completed. This is NOT the full survey. This is only a few supplemental questions that have been added to validate Primary Care as a specialty practice.

Survey Guidelines

The *Guide to Physical Therapist Practice 3.0*¹ describes the Patient/Client Management Model, which includes Examination (history, systems review, tests and measures), Evaluation, Diagnosis, Prognosis, Intervention, and Outcomes. The accepted standards for all physical therapy practice, including Primary Care Specialty Practice, are based on the *Guide* and the patient/client management model, as well as the APTA Code of Ethics and applicable state practice acts. As such, this survey is targeted at the elements of practice that distinguish Primary Care Specialty practice from non-specialty practice. While the specialist may be performing these same elements of practice, as “specialists” they may be performing them with additional knowledge or skill, and may analyze and synthesize information differently. The result of these differences is that the specialist is using higher level clinical reasoning and is practicing more efficiently and effectively than the non-specialist. We ask you to please consider each item carefully in this context, so that the results of this survey truly reflect an “advanced” level of practice.

REMEMBER: If you are only working part-time in advanced specialty Primary Care physical therapy practice setting, please judge the items as if you were working full-time in the Primary Care physical therapy practice setting.

¹*Guide to Physical Therapist Practice 3.0*. Alexandria, VA: American Physical Therapy Association; 2014. Available at: <http://guidetoptpractice.apta.org/>. Accessed June 16, 2017.

Frequency - How frequently does the Primary Care Physical Therapist use this knowledge area?

- 1 - Never
- 2 - Less than once a month
- 3 - Monthly
- 4 - Weekly
- 5 - Daily

Importance - Regardless of the frequency of occurrence or prevalence, how important is this knowledge area to practice as a Primary Care Physical Therapist?

- 1 – Not important
- 2 – Of little importance
- 3 – Moderately important
- 4 – Very important

Level of Judgment - Which of the following statements best describes the level of judgment Primary Care Physical Therapist exercise when they use information from this knowledge area?

- 0 - Do not use in their work
- 1 - Recall
- 2 - Application
- 3 - Analysis

Section 1 – Knowledge Areas of Primary Care Physical Therapy Specialists

This section includes knowledge areas that Primary Care Physical Therapists use in their work. For each area, please check your rating on all three scales as shown.

- 1. Foundation Sciences
 - a. Human Anatomy & Physiology
 - 1. Renal
 - b. Movement Sciences
 - 1. Kinematic and kinetic analysis of functional movements, postural control, and gait
 - 2. Theories and principles of motor development
 - 3. Effects of movement dysfunctions on multiple body systems, including immediate and long-term
 - 4. Interrelationship among social, cognitive, and movement systems
 - c. Exercise Physiology
 - 1. Consideration for health conditions in exercise prescription
 - 2. Adaptation of exercise interventions for safety and general health/wellness
 - d. Human Growth & Development Across the Lifespan
 - 1. Developmental biomechanics and lifespan changes
 - 2. Physiology of aging

3. Muscle performance development and changes with aging
 4. Mental function and changes with aging (e.g. screening for dementia)
2. Behavioral Sciences
 - a. Communication Theory
 1. Best methods of communication and nonverbal language to meet the needs of patient/client
 2. Adapting inclusive communication and language related to gender and sexual identify/expression.
 3. Communication with multidisciplinary medical team in the collaborative management and delivery of primary care services
 - b. Psychology/Psychiatry
 1. Recognition of and referral for psychological health conditions
 2. Suicide Screening and Prevention
 3. Psychosocial issues with aging
 - c. Occupational health
 1. Recognize occupational and work-related diseases and injuries
 2. Advise about improving working conditions and health-at-work
 3. Support return-to-work, and preserve and restore working capacity
 - d. Sociology/cultural competence
 1. Trauma informed care across the lifespan
 3. Clinical Sciences
 - a. Emergency/Trauma Medicine
 - b. Medical and Surgical Considerations
 1. Imaging Studies
 - a. Applying results in referral/consultation management
 - b. Use of diagnostic ultrasound to guide patient management
 2. Laboratory Science
 - a. Appropriateness criteria and recommendations of labs for musculoskeletal conditions
 3. Nonsurgical medical interventions (e.g. steroid injections, nerve ablations, medial branch blocks) and implications for Primary Care Physical Therapy
 4. Surgical and invasive interventions (e.g. laparoscopic arthroscopic procedures, joint arthroplasties, cardiac and vascular procedures) and implications for Primary Care Physical Therapy
 - c. Population Health & Epidemiology
 1. Epidemiology of chronic disease (e.g. implications for lifespan management, impacts on population health)

2. Recognition of hallmark signs for chronic disease process and ability to make appropriate referral/consultations

Section 2-Professional Roles, Responsibilities and Values of Primary Care Physical Therapist

This section addresses what Primary Care Physical Therapist do in their day-to-day professional roles beyond patient management. In order to identify the relevant and important parts of the practice of Primary Care physical therapy, we are asking you to use this inventory to describe the work of Primary Care Physical Therapist and to make judgements about their professional responsibilities.

Please remember, if you are only working part-time in Primary Care specialty practice setting, please judge the items as if you were working full-time in Primary Care specialty practice.

Please judge the items on three scales as shown below and select your answers for all three scales.

Frequency - How frequently does the Primary Care Physical Therapist perform this activity?

- 1 - Never
- 2 - Less than once a month
- 3 - Monthly
- 4 - Weekly
- 5 - Daily

Importance - Regardless of the frequency of occurrence or prevalence, how important is this activity to practice as a Primary Care Physical Therapist?

- 1 – Not important
- 2 – Of little importance
- 3 – Moderately important
- 4 – Very important

Level of Mastery- Level of Mastery refers to the level of skill at which a physical therapist performs during the management of patients/clients with Primary Care diagnoses and impairments. What skill level would a Primary Care Physical Therapists demonstrate while performing this activity?

- 0 – Advanced beginner skill level
- 1 – Competent skill level
- 2 – Proficient skill level
- 3 – Expert skill level

1. Leadership, Social Responsibility & Advocacy: The physical therapist practicing as a primary care clinical specialist demonstrates social responsibility, service and advocacy by:
 - a. Participate in professional organizations and activities related to primary care physical therapy
 - b. Leading and contributing to Health Promotion & Disease Prevention programs
 1. Integrates best evidence in development and implementation of health promotion & disease prevention programs at the individual and societal levels
 2. Promotes health and quality of life for individuals across the lifespan
 3. Promotes screening programs for chronic disease identification and prevention
 - c. Advocating for important policy issues including scope of practice, appropriate payment, and patient access to physical therapy services through relationship building with key players (community stakeholders, healthcare team members, legislators).
2. Education: The physical therapist practicing as a primary care clinical specialist demonstrates ability to educate others and provide consultation by:
 - a. Providing education and raising awareness on the impact and role of social determinants of health
 - b. Promotes lifespan care by providing information on wellness, disease, disability, and health risks related to gender, culture, and lifestyle.
3. Communication: The physical therapist practicing as a primary care clinical specialists demonstrates advanced communication skills by:
 - a. Effectively and efficiently communicates findings to the patient/client and health care team
4. Evidence-Based Practice: The physical therapist practicing as a primary care clinical specialist demonstrates evidence-based practice and critical inquiry by:
 - a. Evaluating the efficacy and effectiveness of examination tools, interventions, and technologies based on available evidence.
 - b. Contributing to the body of evidence by publishing and/or presenting ideas, participating in and disseminating results of investigations (e.g., clinical research, quality assurance programs, patient satisfaction)

Section 3 - Patient/Client Management/Expectations of the Primary Care Physical Therapist

Section 3 is similar to the individual components of the Patient/Client Management Model from *The Guide to Physical Therapist Practice 3.0*. However, Section 3 focuses primarily on those components that Primary Care Physical Therapists may perform at a different level than non advanced specialist therapists. Your feedback from this survey will allow us to determine those skills, thought processes, and abilities to synthesize information that define an Advanced Primary Care Physical Therapist's practice.

REMEMBER: If you are only working part-time in advanced specialty Primary Care physical therapy practice setting, please judge the items as if you were working full-time in the Primary Care physical therapy practice setting.

Frequency - How frequently does the Primary Care Physical Therapist perform this activity?

- 1 - Never
- 2 - Less than once a month
- 3 - Monthly
- 4 - Weekly
- 5 - Daily

Importance - Regardless of the frequency of occurrence or prevalence, how important is this activity to practice as a Primary Care Physical Therapist?

- 1 – Not important
- 2 – Of little importance
- 3 – Moderately important
- 4 – Very important

Level of Mastery- Level of Mastery refers to the level of skill at which a physical therapist performs during the management of patients/clients with Primary Care diagnoses and impairments. What skill level would a Primary Care physical therapist demonstrate while performing this activity?

- 0 – Advanced beginner skill level
- 1 – Competent skill level
- 2 – Proficient skill level
- 3 – Expert skill level

4. Examination

The physical therapist practicing as a primary care clinical specialist effectively triages patients as a first contact provider at an advanced competency level and demonstrate examination by:

a. **Systems Review:** is a brief or limited examination of the anatomical and physiological status of the cardiovascular/pulmonary, integumentary, musculoskeletal, and neuromuscular systems, and the communication, affect, cognition, language and learning style of the patient/client. *(At the clinical specialist practice level baseline information is not simply collected and reported. The advanced practitioner synthesizes this information and applies it specifically considering the pathology, signs and symptoms and uses it for critical clinical decision making.)*

1. Psychological assessment including depression and suicide screening
2. Early recognition and management of suspected conditions necessitating referral
3. Prioritizes relevant screening procedures based on health condition, previous tests and interventions, patient history and observation
4. Documenting appropriately and communicates results of systems review as indicated

b. **Tests and Measures:** *This category includes selection, prioritization, and performance of tests and measures related to and required of specialty practice.*

1. Differentiation of peripheral edema (e.g. vascular insufficiency, cardiac associated edema, lymphedema)
2. Abdominal examination (e.g., renal/hepatic percussion, AAA screening, appendicitis screening)
3. Integumentary assessment (e.g., signs of inflammation, soft tissue swelling/inflammation/infection, wounds, skin cancer screening)
4. Musculoskeletal assessment (muscle performance, endurance, strength, power, muscle tone, fracture screening)

5. Evaluation *(Specific to specialty practice)*

a. Incorporate data from ancillary testing (e.g., imaging, labs, electrophysiological studies, pulmonary function test results)

6. **Diagnosis** *(Specific to specialty practice. May include variations or complexities associated with known pathology, identifying contributing factors, hypothesizing links between impairments and functional limitations, skills of differential diagnoses, etc.)*

- a. Conduct rapid differential diagnosis and triage of emergent versus nonemergent health conditions
- b. Integrate laboratory and imaging results into differential diagnosis

7. Referral/Consultation

- a. Efficiently recognizes signs and symptoms that necessitate urgent referral to physician or emergency medical care
- b. Refers and/or consults with other professionals for further examination as appropriate, based on systems review and medical screening
- c. Refers for needs beyond the scope of physical therapy practice
- d. Collaborates and coordinates patient management throughout the continuum of care
- e. Recognizes need for and facilitates referrals for palliative and hospice care

APPENDIX G: Primary Care Practice Analysis Full Revised Survey (2022)

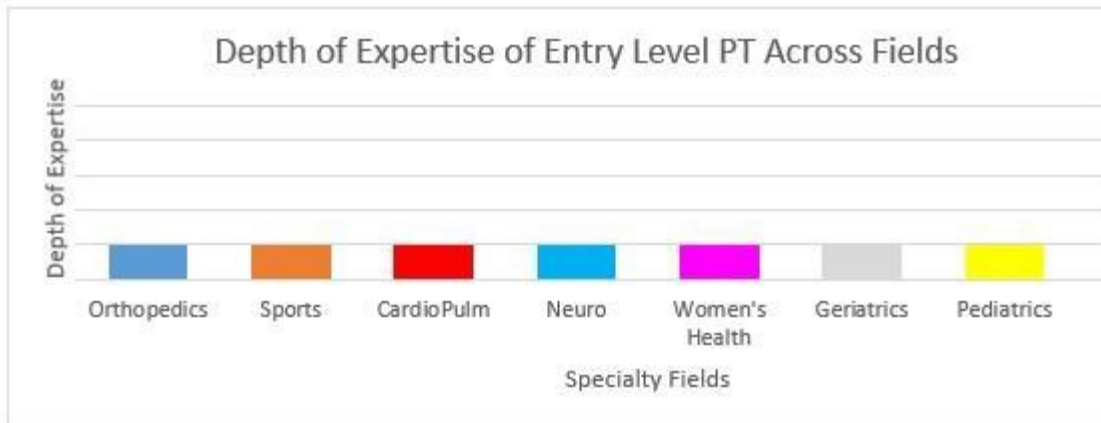
**Additions/changes from 2018 to 2022 survey highlighted in yellow.*

Survey Purpose:

A workgroup of subject matter experts conceptualized the definition of the "Primary Care PT" as a PT who has a general and diverse practice setting and/or population, and practices at a much higher level compared to a new graduate PT. This may allow PTs who do not have the traditional type of focused specialties currently recognized by ABPTS, but who do have advanced expertise and skill in general practice to be recognized as an expert practitioner. This new specialty in Primary Care Practice will be defined as an experienced physical therapist practitioner who:

- Instead of specializing and limiting practice to one area of physical therapy, has advanced expertise to practice across the lifespan to both evaluate and treat clients across a wide spectrum of health conditions.
- Has attained this experience through formal post professional education or through many years of experiential learning opportunities.
- May be working in a variety of settings including, but not limited to, a rural setting or any setting where patient choices for PT services are limited; or an acute/urgent care or emergency department setting; a hospital-based outpatient setting; or a private practice setting.
- Is practicing at a more efficient and more effective level of care and decision-making than non-specialists are providing.
- Although Primary Care Physical Therapy may be ABPTS board certified in another specialty, they do not limit their practice to that area of specialization.

The graphs below may be helpful in understanding this Primary Care Physical Therapy Specialty Practice.



*

The purpose of this survey is to validate primary care as a specialty practice

P1.1. Does the initial description of this new specialty describe your own clinical practice?

- Yes
- Maybe/Somewhat
- No

This Question is Conditionally Shown if: (P1.1 = Yes OR P1.1 = Maybe/Somewhat)

P2.1. Based on the initial description of this new specialty, I consider myself to be practicing Primary Care Physical Therapy at the level of a Specialist.

- Yes
- No

This Question is Conditionally Shown if: (P2.1 = Yes)

P3. I am willing to participate in this survey.

- Yes
- No

Survey Guidelines

The *Guide to Physical Therapist Practice 3.0*¹ describes the Patient/Client Management Model, which includes Examination (history, systems review, tests and measures), Evaluation, Diagnosis, Prognosis, Intervention, and Outcomes. The accepted standards for all physical therapy practice, including Primary Care Specialty Practice, are based on the *Guide* and the patient/client management model, as well as the APTA Code of Ethics and applicable state practice acts. As such, this survey is targeted at the elements of practice that distinguish Primary Care Specialty practice from non-specialty practice. While the specialist may be performing these same elements of practice, as “specialists” they may be performing them with additional knowledge or skill, and may analyze and synthesize information differently. The result of these differences is that the specialist is using higher level clinical reasoning and is practicing more efficiently and effectively than the non-specialist. We ask you to please consider each item carefully in this context, so that the results of this survey truly reflect an “advanced” level of practice.

REMEMBER: If you are only working part-time in advanced specialty Primary Care physical therapy practice setting, please judge the items as if you were working full-time in the Primary Care physical therapy practice setting.

¹*Guide to Physical Therapist Practice 3.0*. Alexandria, VA: American Physical Therapy Association; 2014. Available at: <http://guidetoptpractice.apta.org/>. Accessed June 16, 2017.

Frequency - How frequently does the Primary Care Physical Therapist use this knowledge area?

- 1 - Never
- 2 - Less than once a month
- 3 - Monthly
- 4 - Weekly
- 5 - Daily

Importance - Regardless of the frequency of occurrence or prevalence, how important is this knowledge area to practice as a Primary Care Physical Therapist?

- 1 – Not important
- 2 – Of little importance
- 3 – Moderately important
- 4 – Very important

Level of Judgment - Which of the following statements best describes the level of judgment Primary Care Physical Therapist exercise when they use information from this knowledge area?

- 0 - Do not use in their work
- 1 - Recall
- 2 - Application
- 3 - Analysis

Section 1 – Knowledge Areas of Primary Care Physical Therapy Specialists

This section includes knowledge areas that Primary Care Physical Therapists use in their work. For each area, please check your rating on all three scales as shown.

- 1. Foundation Sciences
 - a. Human Anatomy & Physiology
 - 1. Cardiovascular and pulmonary
 - 2. Musculoskeletal
 - 3. Genitourinary
 - 4. Integumentary
 - 5. Lymphatic
 - 6. Immunologic
 - 7. Neurologic
 - 8. Gastrointestinal
 - 9. Vestibular
 - 10. Endocrine
 - 11. Renal
 - b. Movement Sciences
 - 1. Kinesiology/Clinical biomechanics
 - 2. Kinematic and kinetic analysis of functional movements, postural control, and gait

3. Ergonomics
 4. Locomotion
 5. Theories and principles of motor development
 6. Motor control and learning
 7. Effects of movement dysfunctions on multiple body systems, including immediate and long-term
 8. Interrelationship among social, cognitive, and movement systems
- c. Exercise Physiology
 1. Consideration for health conditions in exercise prescription
 2. Adaptation of exercise interventions for safety and general health/wellness
 - d. Human Growth & Development Across the Lifespan
 1. Developmental biomechanics and lifespan changes
 2. Physiology of aging
 3. Muscle performance development and changes with aging
 4. Mental function and changes with aging (e.g. screening for dementia)
2. Behavioral Sciences
 - a. Biopsychosocial Model
 1. Theories of behavior and behavior change (e.g. behavioral reactions to pain and limitations), coping strategies, and relevant assessment and management strategies
 2. Specific indications, diagnostic tools, and interventions based on behavioral principles
 3. Role of biopsychosocial model in relation to primary care practice (e.g. inter-professional management strategies, exam and management strategies that address psychosocial and personal factors)
 4. The relationship of pain to disability
 5. The influence of the primary care physical therapist's behavior on the patient's behavior and vice versa
 6. Patient centered, culturally competent care
 7. Fear avoidance behaviors and other negative coping strategies related to pain and loss of function
 8. Pain neuroscience education and other patient-centered behavioral pain approaches
 9. Appropriate referrals to other pain management healthcare providers
 - b. Communication Theory
 1. Best methods of communication and nonverbal language to meet the needs of patient/client
 2. Adapting inclusive communication and language related to gender and sexual identify/expression.
 3. Communication with multidisciplinary medical team in the collaborative management and delivery of primary care services

- c. Psychology/Psychiatry
 - 1. Common psychiatric symptoms, syndromes, and classifications
 - 2. Effect of psychiatric disease and treatment on cognition, learning, and function
 - 3. Recognition of and referral for psychological health conditions
 - 4. Suicide Screening and Prevention
 - 5. Psychosocial issues with aging
 - d. Occupational health
 - 1. Recognize occupational and work-related diseases and injuries
 - 2. Advise about improving working conditions and health-at-work
 - 3. Support return-to-work, and preserve and restore working capacity
 - e. Health Promotion and Disease Prevention
 - 1. Behavior change, stages of change, and readiness for change
 - 2. Theories and practice of behavior change for clinical practice (e.g. Cognitive Behavior Therapy, Acceptance Commitment Therapy, Motivational Interviewing)
 - 3. Impact of health behaviors on general health, disease risk, and prognosis for specific conditions across the lifespan
 - 4. Principles of prevention and wellness
 - 5. Sleep Science
 - 6. Exercise for wellness recommendations (e.g. Health and Human Services, American College of Sports Medicine) on quantity, quality and mode.
 - 7. Recommendations on nutritional needs across the lifespan from professional organizations and government agencies
 - 8. Nutrition impact on chronic disease
 - 9. Common dietary patterns and achieving a healthy diet using an eating pattern that works for the patient
 - f. Sociology/cultural competence
 - 1. Cultural competence and sensitivity
 - 2. Family Systems theory
 - 3. Understand social determinants of health and the impact on health and disease
 - 4. Trauma informed care across the lifespan
 - 5. Teaching and learning theory (e.g. learning styles, teaching methods, assessment of learning)
3. Clinical Sciences
- a. Pathology
 - 1. Immunology
 - 2. Pathokinesiology
 - 3. Signs and symptoms of disease/injury

4. Disease/Injury process and progression
 5. Tissue inflammation, healing, response to exercise, and repair
 6. Complications and considerations specific to bariatric medicine and obesity
- b. Pain Science
1. Central nervous system pain physiology
 2. Peripheral nociceptive pain physiology
 3. Peripheral neuropathic pain physiology
 4. Output mechanisms and expressions (e.g. Immune, endocrine, sympathetic, behavioral)
 5. Social and psychological impacts related to pain
- c. Emergency/Trauma Medicine
- d. Medical and Surgical Considerations
1. Medical Screening
 2. Imaging Studies
 - a. Appropriateness criteria for ordering imaging
 - b. Integrating results with clinical examination data
 - c. Applying results in referral/consultation management
 - d. Use of diagnostic ultrasound to guide patient management
 3. Laboratory Science
 - a. Screening of lab values
 - b. Appropriateness criteria and recommendations of labs for musculoskeletal conditions
 - c. Integrating results with clinical examination data
 4. Diagnostic tests and measures (e.g. EKG, electrophysiological exams)
 5. Pharmacology
 - a. Pharmacokinetics and pharmacodynamics
 - b. Pharmacological treatment of co-morbidities and common conditions
 - c. Drug interaction and polypharmacy
 - d. Evidence and education in regard to supplements
 6. Nonsurgical medical interventions (e.g. steroid injections, nerve ablations, medial branch blocks) and implications for Primary Care Physical Therapy
 7. Surgical and invasive interventions (e.g. laparoscopic arthroscopic procedures, joint arthroplasties, cardiac and vascular procedures) and implications for Primary Care Physical Therapy
- e. Population Health & Epidemiology
1. Epidemiology of chronic disease (e.g. implications for lifespan management, impacts on population health)
 2. Recognition of hallmark signs for chronic disease process and ability to make appropriate referral/consultations

- f. Practice Considerations
 - 1. Systems-Based Practice (e.g. actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value
 - 2. Principles of physical therapy evaluation and treatment of patients across the lifespan with musculoskeletal, neuromuscular, cardiovascular, pulmonary, integumentary, or cognitive impairments
 - 3. Provide advanced care across the lifespan for patients who self-refer or are referred to physical therapy
 - 4. Models of differential diagnosis and clinical reasoning such as hypothesis-oriented algorithm for clinicians (HOAC) model or the prospect theory
 - 5. Collaboration and coordination throughout the continuum of care
- 4. Critical Inquiry Principles and Methods
 - a. Critically appraising and applying research findings in Primary Care Physical Therapy
 - b. Critically reviewing quantitative and qualitative research literature, recognizing quality in research design, data analysis, and levels of research evidence.
 - c. Assessing the validity of tests performed including the sensitivity, specificity, and likelihood ratio.
 - d. Applying research findings in Primary Care Physical Therapy

Section 2-Professional Roles, Responsibilities and Values of Primary Care Physical Therapist

This section addresses what Primary Care Physical Therapist do in their day-to-day professional roles beyond patient management. In order to identify the relevant and important parts of the practice of Primary Care physical therapy, we are asking you to use this inventory to describe the work of Primary Care Physical Therapist and to make judgements about their professional responsibilities. Please remember, if you are only working part-time in Primary Care specialty practice setting, please judge the items as if you were working full-time in Primary Care specialty practice. Please judge the items on three scales as shown below and select your answers for all three scales.

Frequency - How frequently does the Primary Care Physical Therapist perform this activity?

- 1 - Never
- 2 - Less than once a month
- 3 - Monthly
- 4 - Weekly
- 5 - Daily

Importance - Regardless of the frequency of occurrence or prevalence, how important is this activity to practice as a Primary Care Physical Therapist?

- 1 – Not important
- 2 – Of little importance
- 3 – Moderately important
- 4 – Very important

Level of Mastery- Level of Mastery refers to the level of skill at which a physical therapist performs during the management of patients/clients with Primary Care diagnoses and impairments. What skill level would a Primary Care Physical Therapists demonstrate while performing this activity?

- 0 – Advanced beginner skill level
- 1 – Competent skill level
- 2 – Proficient skill level
- 3 – Expert skill level

1. Professional Behaviors reflecting the Core Values: The physical therapist practicing as a primary care clinical specialist reflects the core values of a professional, adheres to the highest ethical standards, and pursues continuous learning and development by:
 - a. Practicing ethical decision-making consistent with the APTA Code of Ethics
 - b. Appreciation and respect for physical therapist scope of practice
 - c. Maintaining state-of-the-art knowledge and skills by participation in continuing professional development such as residency education, fellowships, seminars, structured study, journal clubs, etc.
 - d. Practicing ongoing reflection and self-evaluation to identify opportunities for development
 - e. Identifying and prioritizing areas for growth and follows through as a life-long learner through review of research and professional affiliations
 - f. Continuously assessing practice outcomes to validate physical therapy services based on quality, effectiveness, productivity, or service, and be able to identify opportunities for improvement.
 - g. Demonstrating risk management strategies, including informed consent during physical therapy examination and intervention
 - h. Devoting time and effort to effectively recognize and resolve complex problems
 - i. Effectively navigating uncertainty/ambiguity
 - j. Adhering to legally required reporting requirements (e.g. domestic violence, abuse)
 - k. Maintain a referral base of content experts (medical as well as non-medical) within the community for patient access
 - l. Maintaining readily accessible network of interdisciplinary available resources (medical and non-medical) for consultation and referral
 - m. Maintaining a readily accessible network of available interdisciplinary resources for consultation and referral that are compliant with any and all regulatory, agency, and time frame requirements.
 - n. Identifying and encouraging inter-professional practice opportunities

- o. Enhance and promote the rights of the patient to actively participate in the health care management taking into account the patient's wishes, goals, attitudes, beliefs, and circumstances.
 - p. Remains current with evolving trends in patient preferences, changes in health policy on international, federal, and local levels.
2. Leadership, Social Responsibility & Advocacy: The physical therapist practicing as a primary care clinical specialist demonstrates social responsibility, service and advocacy by:
- a. Representing primary care physical therapy to other professional organizations
 - b. Participate in professional organizations and activities related to primary care physical therapy
 - c. Maintaining knowledge of current activities of national and international organizations of physical therapy
 - d. Leading and contributing to Health Promotion & Disease Prevention programs
 - 1. Integrates best evidence in development and implementation of health promotion & disease prevention programs at the individual and societal levels
 - 2. Promotes health and quality of life for individuals across the lifespan
 - 3. Promotes screening programs for chronic disease identification and prevention
 - e. Marketing and promoting the breadth of physical therapy clinical services as well as professional branding
 - f. Marketing health and financial advantages of investing in prevention and wellness at the individual and societal (community based, healthcare systems) levels.
 - g. Advocating for patients through direct patient care interventions, education, service, research, legislation, and the development of community resources.
 - h. Advocating for important policy issues including scope of practice, appropriate payment, and patient access to physical therapy services through relationship building with key players (community stakeholders, healthcare team members, legislators).
 - i. Contributes to periodic practice analyses for state and national associations

3. Education: The physical therapist practicing as a primary care clinical specialist demonstrates ability to educate others and provide consultation by:
 - a. Mentor physical therapists, physical therapist assistants, other health-care professionals, physical therapist residents, and students by participating in clinical education and research related to Primary Care physical therapy.
 - b. Provide evidence-informed Primary Care physical therapy educational programs to a variety of audiences, including students, other health care professionals, the public, elected officials, political groups and candidates, and third-party payers.
 - c. Providing education and raising awareness on the impact and role of social determinants of health
 - d. Promotes lifespan care by providing information on wellness, disease, disability, and health risks related to gender, culture, and lifestyle.
4. Communication: The physical therapist practicing as a primary care clinical specialists demonstrates advanced communication skills by:
 - a. Employing effective communication strategies with individuals across the lifespan, including verbal, nonverbal, and assistive technologies
 - b. Effectively and efficiently communicates findings to the patient/client and health care team
 - c. Using effective communication skills to manage interpersonal relationships judiciously and empathetically
 - d. Effectively managing relationship/practice building
 - e. Empowering individuals in the management of their own health
 - f. Facilitating collaborative inter-professional communication, team management, and transitions of care for patients/clients
 - g. Addressing cultural and/or social issues that affect the plan of care
 - h. Employ communication skills necessary for effective utilization of technology in telephone and video visits (return visits and initial consults)
5. Consultation: The physical therapist practicing as a primary care clinical specialist demonstrates ability to provide consultation and contribute special knowledge or expert opinion in client-based, community, or academic settings, including:

- a. Clients, clients' families, and other health-care professionals (e.g., in-services, support groups, and team meetings)
 - b. Peer review (e.g., chart reviews, peer teaching evaluations)
 - c. Other venues, including the legal system, legislators, corporations, third-party payers, health care regulatory agencies, and health care disparity issues
6. Evidence-Based Practice: The physical therapist practicing as a primary care clinical specialist demonstrates evidence-based practice and critical inquiry by:
- a. Applying contemporary principles of evidence-based practice and knowledge translation in patient and client management while recognizing the limitations of incorporating evidence into practice.
 - b. Retrieving, integrating, and critically applying knowledge from the clinical, biomedical, and behavioral sciences in order to draw inferences for primary care while recognizing the limitations of incorporating evidence into practice.
 - c. Evaluating the efficacy and effectiveness of examination tools, interventions, and technologies based on available evidence.
 - d. Critically evaluating the results of treatment and modify and progress treatment and management as required using outcome measures to evaluate the effectiveness of care.
 - e. Integrating and applying evidence informed approaches in the presentation of health promotion and preventive care programs.
 - f. Effectively developing relevant clinical questions, performing literature reviews in real time to efficiently gather information, and implementing best practices.
 - g. Recognizing the need for the development of further evidence in primary care practice and the role of research in advancing the body of knowledge in primary care physical therapy.
 - h. Recognizing and assess the risks, benefits, and economics of specific interventions, including the principle that interventions with little or no evidence for additional benefit, but some increased risk, should be deferred.
 - i. Determining the best path of management based on knowledge and clinical skill when the questions have not been previously answered.
 - j. Utilizing appropriate patient outcome measures and submit outcomes to a national registry

- k. Assessing and reflecting on outcomes and utilize that information to guide current and future patient management.
 - l. Contributing to the body of evidence by publishing and/or presenting ideas, participating in and disseminating results of investigations (e.g., clinical research, quality assurance programs, patient satisfaction)
7. Clinical Reasoning: The physical therapist practicing as a primary care clinical specialist demonstrates ongoing high-level, effective clinical reasoning to include emphasis on:
- a. The highest ethical standards
 - b. Resource efficiency specific to the patient as well as the patient's health care system
 - c. Broad levels of hypothesis generation during early subjective examination and development of hypothesizes about contributing factors, precautions, contraindications, and management
 - d. Generation of a continually developing understanding of the patient's treatable problems by serially identifying the underlying mechanisms contributing to those problems.
 - e. Advanced skills in pattern recognition which drive:
 - 1. Expert prioritization of differential diagnosis and systematic assessment to rule in/rule out hypotheses
 - 2. Use of efficient processes to control reasoning in dealing with complex patients with multiple comorbidities
 - 3. Expert exam-planning based on appropriate interpretation of subjective examination, including system screening, assessment of pain, sensitivity, and irritability
 - 4. Flexibility and openness in the analytic process using metacognition to respond appropriately to emerging data and changing patient status.
 - 5. Collaborative reasoning which involves the patient in the patient-centered care process
 - 6. Evolving understanding of patient presentation and identifying underlying mechanisms, contributing to patient problem(s).
 - 7. Efficient and effective use of algorithms with the ability to avoid (or at least minimize) clinical reasoning errors

Section 3 - Patient/Client Management/Expectations of the Primary Care Physical Therapist

Section 3 is similar to the individual components of the Patient/Client Management Model from The *Guide to Physical Therapist Practice 3.0*. However, Section 3 focuses primarily on those components that Primary Care Physical Therapists may perform at a different level than non-advanced specialist therapists. Your feedback from this survey will allow us to determine those skills, thought processes, and abilities to synthesize information that define an Advanced Primary Care Physical Therapist's practice.

REMEMBER: If you are only working part-time in advanced specialty Primary Care physical therapy practice setting, please judge the items as if you were working full-time in the Primary Care physical therapy practice setting.

Frequency - How frequently does the Primary Care Physical Therapist perform this activity?

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- 0 – Advanced beginner skill level
- 1 – Competent skill level
- 2 – Proficient skill level
- 3 – Expert skill level

5. Examination

The physical therapist practicing as a primary care clinical specialist effectively triages patients as a first contact provider at an advanced competency level and demonstrate examination by:

c. History: is a systematic gathering of data from both the past and the present related to why the patient/client is seeking the services of the physical therapist.

1. Patient major complaints
2. Patient concerns and goals
3. Role function (e.g., worker, student, spouse, grandparent) (societal roles)
4. Medical history
5. Surgical history
6. Medications and supplements
7. Previous intervention(s) and response
8. Prior level of function
9. Psychological function (e.g., memory, reasoning ability, anxiety, depression, morale, and fear avoidance beliefs)
10. Social habits (past and current)
11. Behavioral health risks such as smoking and substance abuse
12. Level of physical fitness (self-care, home management, community, work (work, school, play), and leisure activities)
13. Environmental factors including community, home, and work barriers, assessment of current and potential barriers, ergonomics and body mechanics (e.g., analysis of specific tasks, work environment, functional capacity) and self-care and independence in home management (e.g., functional capacity, safety, commute and hobbies,)
14. Address health habits (e.g. nutritional and dietary habits, recreational habits, sleep quality)
15. Family/genetic history (e.g. disease, risk factors, early childhood experiences)
16. Prior diagnostic testing (e.g. consults, imaging, labs, neurological testing)

17. Description of current symptoms (e.g. 24-hour behavior, aggravating and easing factors, body chart, onset, and pain level)
18. Co-morbidities
19. Identify patient goals for interventions

d. Systems Review: is a brief or limited examination of the anatomical and physiological status of the cardiovascular/pulmonary, integumentary, musculoskeletal, and neuromuscular systems, and the communication, affect, cognition, language and learning style of the patient/client. *(At the clinical specialist practice level baseline information is not simply collected and reported. The advanced practitioner synthesizes this information and applies it specifically considering the pathology, signs and symptoms and uses it for critical clinical decision making.)*

1. Multisystem review (e.g. cardiovascular, pulmonary, integumentary, lymphatic, neurological, urogenital, gastrointestinal)
2. Psychological assessment including depression and suicide screening
3. Appropriately examine communication affect, cognition, language, and learning style of patient/client.
4. Early recognition and management of suspected conditions necessitating referral
5. Prioritizes relevant screening procedures based on health condition, previous tests and interventions, patient history and observation
6. Documenting appropriately and communicates results of systems review as indicated

e. Tests and Measures: *This category includes selection, prioritization, and performance of tests and measures related to and required of specialty practice.*

1. Anthropometric measures (e.g. BMI, weight, height, waist circumference)
2. Arousal, Attention, and Cognition (e.g. arousal and awareness scales, ability to process commands, communication and language barriers, level of consciousness, motivation and capacity to participate in

intervention, orientation to time, person, place, and situation, and recall ability).

3. Circulation (Arterial, Venous, Lymphatic)
4. Cardiovascular signs, including heart rate, rhythm, and sounds; pressures and flow; and superficial vascular responses (e.g., auscultation, electrocardiography, girth measurement, observations, palpation, sphygmomanometry, ankle/brachial index, perceived exertion scales)
5. Cardiovascular symptoms (e.g., angina, claudication)
6. Lymphatic system function (e.g., girth and volume measurements, palpation, observation of skin texture)
7. Differentiation of peripheral edema (e.g. vascular insufficiency, cardiac associated edema, lymphedema)
8. Abdominal examination (e.g., renal/hepatic percussion, AAA screening, appendicitis screening)
9. Physiological responses to position change, including autonomic responses, central and peripheral pressures, heart rate and rhythm, respiratory rate and rhythm, ventilatory pattern
10. Diagnostic testing (e.g. laboratory tests, imaging, ultrasound and electrophysiologic testing)
11. Dynamic assessment both with and without the use of assistive, adaptive, orthotic, or other devices/equipment
 - a. Gait & Locomotion
 - b. Movement analysis (e.g. real time observation, video, technology)
 - c. Motor function (e.g., assessment of motor learning and motor control)
 - d. Coordination
 - e. Balance (vestibular, proprioceptive, visual)
 - f. Activities of Daily Living performance
 - g. Safety assessment (e.g. falls risk assessment, ergonomics)
12. Functional performance tests

13. Illness behavior assessment (e.g. Screen Assist, STarT BACK, depression screen)
14. Integumentary assessment (e.g., signs of inflammation, soft tissue swelling/inflammation/infection, wounds, skin cancer screening)
15. Joint integrity (e.g., mobility assessment of joint hyper and hypomobility, to include active and passive range of motion, passive accessory motions, response to manual provocation).
16. Musculoskeletal assessment (muscle performance, endurance, strength, power, muscle tone, fracture screening)
17. Neurologic assessment
 - a. Neuromotor screen (e.g. Upper Motor Neuron Screen, Lower Motor Neuron Screen, and upper motor neuron tests such as Babinski and Hoffman's)
 - b. Neuromechanical assessment (e.g. nerve mobility/neurodynamics)
 - c. Neuromotor development and sensory integration (e.g., assessment of age-appropriate development, dexterity, coordination, and integration of somatosensory, visual, and vestibular systems).
 - d. Reflex integrity (e.g., assessment of normal and pathological reflexes).
 - e. Cranial nerve integrity
 - f. Sensory integrity (e.g., assessment of superficial sensation, dermatomes, myotomes, proprioception, and kinesthesia).
18. Observation (e.g. posture, deformity, symmetry, affect, transfers, and motor control)
19. Orthotic, protective, prosthetic, and supportive devices (e.g., assessment of appropriateness, use, remediation of impairment, alignment and fit, safety).
20. Pain (e.g., assessment using questionnaires, behavioral scales, visual analog scales).
21. Palpation (e.g. edema, bony landmarks, muscles, tendons, ligaments, presence of abnormal tissue examination such

as masses or deformities, symptom manifestation/modification)

22. Pulmonary assessment (e.g. breath sounds/rate, nail clubbing, lung auscultation)
23. Soft tissue assessment (e.g., myofascial mobility, pain pressure threshold)
24. Special tests specific to working diagnosis

f. Re-examination: Ongoing assessment and reassessment throughout the continuum of care

6. Evaluation (*Specific to specialty practice*)

- b. Interpret data from history and systems review (e.g., identify relevant, consistent, accurate data, prioritize impairments, assess patient's/client's needs, motivations, and goals, determine working diagnoses, and plan the tests and measures)
- c. Identify current, emerging or potential "yellow" and/or "red flags" which may warrant caution throughout client management, medical referral, or both
- d. Triage patients as first contact providers at an advanced competency level
- e. Select tests and measures that are comprehensive, consistent with history and systems review, appropriately sequenced and prioritized, and which have acceptable measurement properties (e.g., high specificity/sensitivity) to verify or refute the working diagnosis
- f. Select and prioritize examination procedures to focus on identification of localized pain vs. regional vs. widespread pain sensitivity
- g. Avoid common diagnostic reasoning errors such as anchoring, confirmation bias, and other sources of medical error
- h. Develop a working problem/ hypothesis list
- i. Determine a Differential Diagnosis (e.g. primary hypothesis, competing hypotheses, complicating factors such as co-morbidity and economic/social factors)
- j. Determine depth and breadth of medical screening, based on differential diagnosis

- k. Evaluate and interpret data from the examination (correlate history/systems review with tests and measures); consider intervening factors, such as stage or irritability of condition and personal and environmental factors according to the *International Classification of Functioning, Disability and Health* (ICF) model.
 - l. Incorporate data from ancillary testing (e.g., imaging, labs, electrophysiological studies, **pulmonary function test results**)
 - m. Consider implications of exam findings on activity, quality of life, and wellness as established by the ICF
 - n. Refine hypotheses through the evaluation process
 - o. Refer patients/clients to other health care professionals for further examination as appropriate, based on systems review and medical screening.
 - p. Determine risk stratification (e.g. risk of loss of work prognostically, poor outcomes, persistent symptoms, suicide risk, depression)
- 7. Diagnosis** (*Specific to specialty practice. May include variations or complexities associated with known pathology, identifying contributing factors, hypothesizing links between impairments and functional limitations, skills of differential diagnoses, etc.*)
- c. Conduct rapid differential diagnosis and triage of emergent versus nonemergent health conditions**
 - d. Differentially diagnose based on the evaluation, organizing data into recognized clusters, patterns, syndromes, or categories to establish a diagnosis
 - e. Integrate laboratory and imaging results into differential diagnosis**
- 8. Prognosis** (*Specific to specialty practice. May address variations on age or complexity associated with known pathology, stages of recovery, natural history of condition, disorder, or impairment, etc.*)
- a. Establish a prognosis, including the predicted optimal level of improvement in function and the amount of time needed to reach that level.
 - b. Select plan of care/intervention approach to include referral to another health care professional, physical therapy intervention, or further examination.

- c. Assess extent of movement/exercise-based interventions and relate to hypothesis in order to achieve patient goals and outcomes
- d. Plan specific type and dosage of home/independent exercise programs, identifying indications/ contraindications and considering the strength of available, relevant evidence.
- e. Respond to emerging data from examinations and interventions:
- f. Assess response to intervention (changes in signs and symptoms; new symptoms; changes in tissue response, mobility, and function).
- g. Determine the significance of changes in signs and symptoms as they relate to the plan of care (determine relationship between expected result and actual result, cause of change, relevance of change).
- h. Modify and redirect examination and intervention based on this data.

9. Interventions: *(Address all categories from specialization perspective)*

a. Coordination, Communication, and Documentation

- 1. Communicate effectively with patients/clients, family members, caregivers, practitioners, consumers, payers, and policy makers about women's health issues
- 2. Discuss rationale for physical therapy examination and intervention procedures, including use of current best evidence, with patients/clients, peer professionals, and payers
- 3. Collaborate as a healthcare team member and leader to ensure that physical therapy is a part of an appropriate, culturally competent, comprehensive plan for care
- 4. Adapt communication to appropriate educational level(s)
- 5. Complete thorough documentation following guidelines and specific documentation formats required by the practice setting (e.g., communication with payer sources for maximizing treatment services and resources, legal protection of staff, patient, and/ or facility)

b. Patient/Client-Related Instruction

1. Diagnosis, prognosis, course of episode/condition, intervention, responsibility, and self-management within plan of care
2. Mutually acceptable goals
3. Using biopsychosocial and biomedical models
4. Pain physiology and dose response
5. Prevention and wellness
6. Behavior modification and cognitive-behavioral approaches (mental)
7. Planning for end of episode of care

c. Procedural Interventions (*This category includes selection, prioritization, and knowledge of performance ability for procedural interventions related to and required of specialty practice.*)

1. Manual therapy (e.g. soft tissue mobilization, joint mobilization/manipulation, dry needling, lymphatic drainage, visceral therapy)
2. Therapeutic exercise instruction to include:
 - a. Aerobic capacity and endurance
 - b. Motor control and coordination
 - c. Muscle performance (e.g., strength, muscle endurance)
3. Graded exposure/ graded activity
4. Vestibular training
5. Body mechanics and ergonomics
6. Proprioception training (e.g., repositioning, balance, agility)
7. Neurological therapy treatment designed to improve deficits related to neurological conditions (e.g., developmental, TBI, CVA, demyelinating disease, SCI)
8. Electrotherapeutic modalities (Integrates motor learning and motor control concepts into the application of electrotherapeutic modalities, such as biofeedback and NMES)

9. Prescription, application, and, as appropriate, fabrication of protective, adaptive, or supportive device or equipment (e.g., orthotics, braces, serial casting, wheelchairs, kinesiotaping)
10. Functional training in self-care and in domestic, education, work, community, social, and civic life
11. Assistive technology (e.g. seating, wheelchair, prosthetics)
12. Ergonomic counseling and modification
13. Gait training (general and with technology)
14. Airway clearance techniques, including breathing strategies, manual/mechanical techniques, and positioning
15. Integumentary repair and protection techniques including debridement, wound therapy, dressings, positioning, and modalities
16. Plan specific type and dosage of home/independent exercise/treatment programs, identifying indications/contraindications
17. Prevention, Wellness, and Health Promotion Services
 - a. Provide culturally appropriate physical therapy services for prevention, health promotion, and fitness and wellness programs to individuals, groups, and communities
 - b. Promote health and quality of life for patients/clients by providing information on health promotion, fitness, wellness, disease, impairment, functional limitations, disability, injury prevention, secondary prevention in chronic disease, disability managements and health risks related to age, gender, culture, and lifestyle
 - c. Provide education, behavior strategies, referral opportunities, and identification of supportive resources for adherence to health care recommendations (e.g. stress management, weight management, nutritional strategies, sleep health, alcohol moderation, substance-free and violence-free living)

18. Provides telehealth services (e.g., phone, video) as allowed by law

10. Outcomes (*Specific to specialty practice. Include assessment measures and tools related only to advanced clinical practice.*)

- a. Assess remediation of activity and participation limitations, optimization of patient satisfaction, and promotion of primary and secondary prevention.
- b. Choose appropriate assessment measures to determine initial and long-term responses to intervention.
- c. Use applicable, evidence-based outcomes measurement tools/questionnaires/scales (e.g., STarT BACK, Lower Extremity Functional Scale, Timed Up and Go, 6-minute walk test)
- d. Determine attainment of agreed-upon functional goal(s) and level of patient/client satisfaction
- e. Assess efficacy of resources used to achieve patient outcomes

11. Referral/Consultation

- f. Efficiently recognizes signs and symptoms that necessitate urgent referral to physician or emergency medical care
- g. Refers and/or consults with other professionals for further examination as appropriate, based on systems review and medical screening
- h. Refers for needs beyond the scope of physical therapy practice
- i. Collaborates and coordinates patient management throughout the continuum of care
- j. Recognizes need for and facilitates referrals for palliative and hospice care

Section 4 - Examination Content Outline

If the Primary Care Physical Therapy Specialty Practice becomes a recognized ABPTS specialty, they will develop a certification exam blueprint representing the major components of the Description of Specialty Practice. We would like to have your input as to how you feel those percentages should be allocated.

1. Please indicate what percentage of each component should be represented in a future certification exam. Your responses should total 100%.

Anatomy and Physiology _____
Clinical Science _____
Behavioral Science _____
Medical and Surgical Interventions _____
Primary Care Practice Considerations _____
Critical Inquiry for Evidence Based Practice/Professional Roles and Responsibilities _____

Evaluation/Examination _____
Diagnosis/Prognosis _____
Intervention/Outcomes _____

Section 5 - Demographic Information

Please answer each item by the response that most clearly describes you or your professional activities. This demographic information is collected for purposes of group analysis. Individual responses will not be analyzed and are confidential.

4.1. Are you in favor of establishing a Primary Care Physical Therapy Specialty Practice?

- Yes
- No

4.2. If a Primary Care Physical Therapy Specialty Practice was offered by the American Board of Physical Therapy Specialties, would you apply for and take the certification exam?

- Definitely Yes
- Possibly Yes
- Not sure
- Probably Not
- Definitely Not

This Question is Conditionally Shown if: (4.2 = Probably Not OR 4.2 = Definitely Not)

4.3. You answered the above question *Probably Not* or *Definitely Not*. What are your reasons?
(May select more than one answer)

- Too expensive
- Don't feel it would help me professionally
- Don't think it is a unique specialty
- Other _____

4.4. What age patients do you see as a Primary Care physical therapist? Please indicate by percentages for a total of 100%.

Pediatric (0-12 years) _____

Adolescent (13-18 years) _____

Adult (19-64 years) _____

Geriatric (65 years plus) _____

4.5. As a Primary Care Physical Therapy provider, what is your caseload by percentage? Please indicate by percentages for a total of 100%.

Cardiovascular and Pulmonary _____

Geriatrics _____

Pediatrics _____

Neurology _____

Oncology _____

Orthopedics _____

Sports Medicine _____

Women's Health _____

Wound Care _____

4.6. How many Primary Care Physical Therapy patients do you see in a typical week?

4.7. What is the average number of visits per episode of care for your Primary Care Physical Therapy patients?

4.8. Primary Care Physical Therapy often includes referring patients to other disciplines and/or specialists. For patients who you refer, please indicate by percentage where you refer patients: (Total should equal 100%.)

Other physical therapist who are specialists in different areas

Physician, nurse practitioner, or physician's assistant for follow up

Physician, nurse practitioner, or physician's assistant requesting imaging or other tests

Board certified medical specialists (eg orthopaedic surgeons, neurologists, neurosurgeons, etc.) _____

Other _____

4.8.1. If you indicated "other" above, please specify:

4.9. How much does each of the following factors influence your clinical decision making in Primary Care physical therapy? Please indicate by percentages for a total of 100%.

Published Clinical practice guidelines _____

Peer Reviewed Evidence _____

Patient preferences _____

Entry level physical therapist education _____

Post professional physical therapist education

Clinical experience _____

Continuing Education short courses _____

Mentoring experiences _____

Clinical outcomes data (e.g. comparing my patient outcomes to patient outcomes reported in the literature) _____

4.9.1. Which of the following MOST influenced your development of advanced competencies in Primary Care Physical Therapy clinical skills?

- Self study
- Inservice/peer interaction
- Continuing education
- Mentoring
- Graduate program(s)
- Clinical experience
- Other _____

4.10. Please indicate the percentages of your time spent in each of the following types of professional activities. Please indicate by percentages for a total of 100%.

Direct Primary Care physical therapy patient/client management

Direct patient/client management other than Primary Care physical therapy

Consultation _____

Administration/management _____

Advocacy _____

Clinical teaching _____

Academic teaching _____

Research _____

Other _____

4.10.1. If you indicated "other" above, please specify:

Please click SAVE to save your responses.

(End of Page 14)

4.11 . What percentage of your time do you carry out your professional responsibilities in the following practice settings? Please indicate by percentages for a total of 100%.

Acute care/urgent care clinic _____

Hospital emergency department _____

Health system or hospital based outpatient facility or clinic _____

Private outpatient office or group practice _____

Patient's home/home care _____

Academic Institution (post-secondary) _____

Administration _____

Health and Wellness Facility _____

Occupational Health/Industry _____

Other _____

4.11.1. If you indicated "other" above, please specify:

4.12. Are you currently an ABPTS board certified specialist?

Yes

No

This Question is Conditionally Shown if: (4.12 = Yes)

4.13. Which Specialty(ies) and in what year(s) were you initially certified?

Select if you are certified in this area.

Cardiovascular and Pulmonary

Clinical Electrophysiology

Geriatrics

Pediatrics

Neurology

Orthopaedics

Sports Medicine

Women's Health

Oncology

Year of Initial certification

Cardiovascular and Pulmonary _____

Clinical Electrophysiology _____

Geriatrics _____

Pediatrics _____

Neurology _____

Orthopaedics _____

Sports Medicine _____

Women's Health _____

Oncology _____

4.14. What was your first (entry-level) physical therapist degree, prior to taking the licensure exam?

- Baccalaureate degree
- Post baccalaureate certificate
- Master's degree
- DPT
- Other (please specify) _____

4.15. What is the highest earned degree (or degrees) you hold in any area of study? (Select only one.)

- Baccalaureate degree
- Master's degree
- PhD (or equivalent, e.g. EdD or ScD)
- DPT
- tDPT
- PhD (or equivalent) and DPT
- PhD (or equivalent) and tDPT
- Other (please specify) _____

4.15.1. How many years have you been practicing as a physical therapist?

- <1 years
- 1-3 years
- 4-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 21-30 years
- 31+ years

4.15.2. How many years have you been practicing as a Primary Care physical therapist?

- <1 years
- 1-3 years
- 4-5 years
- 6-10 years
- 11-15 years
- 16-20 years
- 21-30 years

31+ years

4.15.3. Have you served as a uniform services or federal health care physical therapist?

Yes

No

4.16. In which of the following demographic settings do you primarily practice?

Urban

Rural

Suburban

4.17. Using a total of 35 or more hours per week (at your primary position) as the definition of "full-time", which one of the following describes your current employment status?

Full-time salaried

Part-time salaried

Full-time self employed

Part-time self employed

Full-time hourly

Part-time hourly

Retired

Unemployed/not seeking work

Unemployed/seeking full-time employment

Unemployed/seeking part-time employment

4.18. Please indicate the state in which you most frequently practice.

AL

AK

AZ

AR

CA

CO

CT

DE

DC

FL

GA

HI

ID

IL

IN

IA

KS

KY

LA

ME

MD

MA

MI

- MN
- MS
- MO
- MT
- NE
- NV
- NH
- NJ
- NM
- NY
- NC
- ND
- OH
- OK
- OR
- PA
- RI
- SC
- SD
- TN
- TX
- UT
- VT
- VA
- WA
- WV
- WI
- WY
- Other _____

4.19. Please indicate your race/ethnic origin:

- American Indian or Alaskan Native
- Asian
- African American or Black (Not of Hispanic origin)
- White (Not of Hispanic origin)
- Hispanic/Latino
- Pacific Islander or Native Hawaiian
- Other _____

4.20. Please indicate your sex:

- Female
- Male

4.21. Please indicate your age in years at your last birthday:

4.22. This specialty is defined as “advanced expertise to practice across the lifespan and both evaluate and treat clients across a wide spectrum of health conditions.” The Subject Matter

Expert Group developing this practice analysis survey struggled with choosing the correct name and would like your input. Consider the following list of possible names and then rank order them with 1 as your MOST FAVORITE and 5 as your LEAST FAVORITE.

	1-Most Favorite	2	3	4	5-Least Favorite
Primary Care Physical Therapy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Family Health Physical Therapy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Primary Health Care Physical Therapy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Primary Care Physical Therapy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Advanced General Practice Physical Therapy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

(End of Page 15)

APPENDIX H: Primary Care Supplemental & Revised Practice Analysis Survey Data (2022)

Key	# of items
High frequency (≥ 3.0), high importance (≥ 2.5) tasks. Very <u>likely</u> to be critical	213
Low frequency (< 3.0), high importance (≥ 2.5) tasks. May be critical	27
High frequency (≥ 3.0), low importance (< 2.5) tasks. Less likely to be critical	5
Low frequency (< 3.0), low importance (< 2.5) tasks. Very <u>unlikely</u> to be critical	17

Response Scales		
Frequency	Importance	Level of Judgment/Mastery
0. Never	0. Not important	0. Do not use/ Advanced beginner skill level
1. Less than monthly	1. Of little importance	1. Recall/ Competent skill level
2. Monthly	2. Moderately important	2. Application/ Proficient skill level
3. Weekly	3. Very important	3. Analysis/Expert skill level
4. Daily		

			Frequency (F)			Importance (I)			Level of Judgement / Mastery		
F	I	Item/Label	N	Mean	SD	N	Mean	SD	N	Mean	SD
Section 1 – Knowledge Areas of Primary Care Physical Therapy Specialists											
H	H	1. Cardiovascular and pulmonary	353	4.22	0.90	35	3.45	0.63	34	2.46	0.61
				38	973	2	739	909	8	839	361
H	H	2. Musculoskeletal	351	4.78	0.43	34	3.77	0.42	34	2.89	0.30
				063	46	6	746	346	8	655	498
H	H	3. Genitourinary	349	3.02	1.08	34	2.79	0.75	33	1.91	0.76
				579	114	2	24	088	3	291	928
H	H	4. Integumentary	347	3.77	1.06	34	3.12	0.74	34	2.23	0.70
				233	306	1	317	917	4	547	799
L	H	5. Lymphatic	346	2.88	1.16	34	2.80	0.78	32	1.96	0.70
				728	047	5	87	387	7	025	163
H	H	6. Immunologic	343	3.06	1.14	34	2.77	0.82	31	1.83	0.75
				706	383	1	126	633	9	072	831

H	H	7. Neurologic	347	4.50 432	0.66 876	34 6	3.68 786	0.50 588	34 5	2.84 638	0.39 199
H	H	8. Gastrointestinal	345	3.06 667	1.14 052	34 3	2.63 265	0.78 307	32 7	1.73 7	0.72 928
H	H	9. Vestibular	346	3.52 312	0.94 227	34 3	3.28 28	0.67 01	34 2	2.56 14	0.59 374
L	H	10. Endocrine	340	2.98 529	1.19 355	34 1	2.72 141	0.85 498	32 5	1.78 769	0.78 243
L	L	11. Renal	117	2.31 624	1.03 931	11 6	2.10 345	0.69 005	11 1	1.79 279	0.78 76
H	H	b. Movement Sciences 1. Kinesiology/Clinical biomechanics	245	4.36 735	0.60 374	24 4	3.36 475	0.57 57	24 1	2.83 403	0.41 514
H	H	2. Kinematic and kinetic analysis of functional movements, postural control, and gait	56	3.96 429	0.18 726	56	2.91 071	0.28 774	55	2.89 091	0.31 463
H	H	3. Ergonomics	181	3.92 265	1.00 254	18 2	3.13 187	0.76 105	17 9	2.59 218	0.61 457
H	H	4. Locomotion	308	4.66 234	0.55 594	31 0	3.66 774	0.53 601	30 9	2.84 142	0.39 159
L	L	5. Theories and principles of motor development	114	2.92 983	1.09 479	11 8	2.32 203	0.73 823	11 2	2.23 214	0.78 249
H	H	6. Motor control and learning	310	4.47 419	0.82 3	30 8	3.54 546	0.67 134	30 8	2.70 779	0.50 952
H	H	7. Effects of movement dysfunctions on multiple body systems, including immediate and long-term	120	3.84 167	0.42 989	12 0	2.85 833	0.37 34	11 7	2.73 504	0.48 054
H	H	8. Interrelationship among social, cognitive, and movement systems	120	3.84 167	0.38 883	12 0	2.74 167	0.43 955	11 7	2.69 231	0.48 176
H	H	c. Exercise Physiology 1. Consideration for health conditions in exercise prescription	120	3.88 333	0.37 086	12 0	2.86 667	0.34 136	11 7	2.66 667	0.50 855
H	H	2. Adaptation of exercise interventions for	120	3.91 667	0.35 7	12 0	2.87 5	0.33 211	11 7	2.71 795	0.47 062

		safety and general health/wellness									
H	L	d. Human Growth & Development Across the Lifespan 1. Developmental biomechanics and lifespan changes	118	3.22 034	0.95 305	11 9	2.41 177	0.64 324	11 6	2.23 276	0.76 167
H	H	2. Physiology of aging	120	3.65	0.60 321	12 0	2.73 333	0.46 261	11 7	2.42 735	0.67 359
H	H	3. Muscle performance development and changes with aging	120	3.7	0.54 387	12 0	2.73 333	0.48 043	11 7	2.43 59	0.64 84
H	L	4. Mental function and changes with aging (e.g. screening for dementia)	120	3.04 167	0.81 37	12 0	2.49 167	0.53 446	11 7	2.13 675	0.72 997
H	H	a. Biopsychosocial Model 1. Role of biopsychosocial model in relation to primary care practice (e.g. interdisciplinary management strategies that address psychosocial and personal factors)	271	4.09 225	0.89 999	27 2	3.22 059	0.68 394	26 4	2.36 742	0.69 589
H	H	2. Relationship of pain to disability	273	4.37 729	0.78 623	27 3	3.40 293	0.66 884	26 9	2.56 134	0.64 135
H	H	3. Influence of the Primary Care Physical Therapist's behavior on the patient's behavior and vice versa	272	4.53 677	0.73 307	27 2	3.5	0.64 287	26 9	2.61 71	0.58 451
H	H	4. Fear avoidance behaviors and other negative coping strategies related to pain and loss of function	250	4.22	0.76 284	24 9	3.40 964	0.60 979	24 8	2.53 226	0.60 945
H	H	5. Pain neuroscience education and other patient-centered	250	4.01 2	0.94 202	25 0	3.35 2	0.64 945	24 7	2.38 462	0.71 699

		behavioral pain approaches									
H	H	6. Appropriate referrals to other pain management healthcare providers	248	3.5	0.99 797	24 7	3.38 057	0.66 939	24 7	2.39 271	0.68 937
H	H	b. Communication Theory 1. Communication and nonverbal language to meet the needs of patient/client	120	3.89 167	0.31 21	12 0	2.83 333	0.39 606	11 7	2.41 026	0.60 392
H	L	2. Inclusive communication and language related to gender and sexual identify/expression	116	3.06 035	1.08 178	11 7	2.45 299	0.71 313	11 3	2.03 54	0.68 046
H	H	3. Multidisciplinary medical team communication in the collaborative management and delivery of primary care services	120	3.57 5	0.66 941	12 0	2.88 333	0.32 237	11 7	2.47 009	0.56 588
H	H	c. Psychology/Psychiatry 1. Common psychiatric symptoms, syndromes, and classifications	259	3.32 432	0.99 37	25 9	2.89 189	0.71 791	25 1	1.77 291	0.72 679
H	H	2. Effect of psychiatric disease and treatment on cognition, learning, and function	259	3.34 749	1.03 939	25 9	2.94 595	0.75 031	24 9	1.88 755	0.72 638
L	H	3. Recognition of and referral for psychological health conditions	56	2.53 571	1.04 384	56	2.67 857	0.54 296	55	2.14 546	0.70 496
L	H	4. Suicide Screening and Prevention	117	2.72 65	1.14 187	12 0	2.77 5	0.45 766	11 6	2.18 103	0.68 014
H	L	5. Psychosocial issues with aging	120	3.27 5	0.77 744	12 0	2.47 5	0.59 356	11 7	2.17 094	0.74 615
H	L	d. Occupational health 1. Recognition of occupational and work-related	118	3.08 475	1.00 065	11 9	2.41 177	0.58 819	11 4	2.32 456	0.73 467

		diseases and injuries									
L	L	2. Recommendations to optimize working conditions/environment	117	2.91 453	1.03 034	11 9	2.39 496	0.62 732	11 3	2.32 743	0.64 701
L	H	3. Support return-to-work, preserve, and restore working capacity	118	2.92 373	0.99 706	11 9	2.53 782	0.62 151	11 4	2.35 965	0.65 348
H	H	e. Health Promotion and Disease Prevention 1. Behavior change, stages of change, and readiness for change	160	4.07 5	0.92 858	15 9	3.21 384	0.70 59	15 6	2.38 462	0.68 591
H	H	2. Theories and practice of behavior change for clinical practice (e.g. Cognitive Behavior Therapy, Acceptance Commitment Therapy, Motivational Interviewing)	157	3.59 873	1.16 498	15 8	2.89 241	0.80 275	14 7	2.11 565	0.73 575
H	H	3. Impact of health behaviors on general health, disease risk, and prognosis for specific conditions across the lifespan	160	4.06 25	0.85 919	15 8	3.13 291	0.69 671	15 7	2.28 026	0.73 235
H	H	4. Principles of prevention and wellness	258	4.34 109	0.82 751	25 6	3.46 094	0.64 961	25 5	2.52 941	0.60 029
H	H	5. Sleep Science	252	3.03 175	1.23 001	25 5	2.8	0.82 003	22 6	1.88 938	0.73 707
H	H	6. Exercise for wellness recommendations (e.g. Health and Human Services, American College of Sports Medicine) on quantity, quality and mode	258	4.04 264	0.98 339	25 8	3.28 295	0.68 43	25 3	2.26 878	0.68 927

H	H	7. Recommendations for nutritional needs across the lifespan (e.g., understanding professional and government agencies guidelines, identifying common dietary plans)	248	3.25 403	1.15 06	24 9	2.87 952	0.75 772	23 5	1.82 979	0.67 048
H	H	8. Nutrition impact on chronic disease	248	3.31 452	1.13 013	24 7	2.91 498	0.80 953	23 7	1.85 232	0.71 849
H	H	f. Sociology/cultural competence 1. Cultural competence and sensitivity	249	3.42 57	1.15 507	24 7	2.97 571	0.77 526	23 2	2.02 586	0.77 248
L	L	2. Family Systems theory	39	2.53 846	1.12 03	49	1.93 878	0.71 903	39	1.71 795	0.75 911
L	L	3. Social determinants of health and the impact on health and disease	55	2.96 364	1.01 769	56	2.32 143	0.71 623	54	1.90 741	0.87 456
L	L	4. Trauma informed care across the lifespan	118	2.86 441	0.99 499	11 8	2.37 288	0.65 106	11 3	1.99 115	0.72 575
H	H	g. Teaching and learning theory (e.g., learning styles, teaching methods, assessment of learning)	259	4.07 722	1.08 631	25 9	3.19 305	0.79 326	25 4	2.25 984	0.73 007
L	H	a. Pathology 1. Immunology	312	2.94 872	1.17 199	31 0	2.68 387	0.83 029	29 0	1.73 103	0.79 144
H	H	2. Pathokinesiology	315	4.36 508	0.96 601	31 2	3.47 115	0.73 441	31 2	2.65 064	0.60 788
H	H	3. Signs and symptoms of disease/injury	315	4.69 524	0.54 93	31 5	3.73 651	0.48 26	31 5	2.82 54	0.42 003
H	H	4. Disease/injury process and progression	249	3.53 815	1.10 696	24 6	3.05 285	0.68 307	23 2	2.17 672	0.77 223
H	H	5. Tissue inflammation, healing, response to exercise, and repair	317	4.70 347	0.59 034	31 6	3.71 835	0.51 001	31 3	2.79 872	0.44 693
H	H	6. Complications and considerations specific to bariatric	311	3.31 833	1.13 235	31 3	3.06 07	0.75 074	30 3	2.15 842	0.66 212

		medicine and obesity									
H	H	6. Pain Science 1. Central nervous system pain physiology	292	3.53 425	1.14 071	28 9	3.59 17	0.94 248	29 0	2.77 931	0.76 669
H	H	2. Peripheral nociceptive pain physiology	287	3.40 767	1.16 37	28 9	3.66 782	0.94 301	28 5	2.89 825	0.84 763
H	H	3. Peripheral neuropathic pain physiology	289	3.32 526	1.14 174	28 8	3.76 042	0.99 207	28 6	2.95 804	0.86 145
L	H	4. Output mechanisms and expressions (e.g. Immune, endocrine, sympathetic, behavioral)	281	2.94 306	1.30 533	28 6	3.5	1.20 161	28 2	2.67 376	1.05 369
H	H	5. Social and psychological impacts related to pain	290	4.35 517	0.86 536	28 9	3.45 329	0.67 603	28 7	2.51 568	0.62 489
L	H	c. Emergency/Trauma Medicine 1. Triage of acute neurologic and musculoskeletal conditions presenting to emergency/trauma departments	99	2.85 859	1.04 988	11 4	2.76 316	0.44 727	10 2	2.67 647	0.51 052
H	H	2. Early identification of yellow/red flags	120	3.62 5	0.69 889	11 9	2.93 277	0.25 147	11 7	2.71 795	0.53 894
H	H	3. Falls risk and safety assessments (including assessment and provision of assistive devices/equipment)	120	3.7	0.57 394	11 9	2.89 076	0.31 326	11 7	2.70 94	0.50 956
H	H	4. Educational subject matter expert for acute neurologic and musculoskeletal conditions	120	3.35	0.91 348	11 9	2.73 109	0.49 911	11 7	2.53 846	0.60 939
H	H	5. Referral for further intervention (e.g., including	120	3.38 333	0.76 897	11 9	2.84 874	0.35 982	11 7	2.67 521	0.50 564

		referral other specialty care, medical work-up, imaging, social work, further PT services as necessary)									
H	H	6. Discharge planning	117	3.41 026	0.78 952	11 8	2.71 186	0.52 464	11 4	2.62 281	0.57 052
H	H	d. Medical and Surgical Considerations - 1. Medical Screening	241	4.21 162	0.96 654	24 1	3.48 133	0.66 51	23 8	2.66 807	0.59 099
H	H	2. Imaging Studies a. Appropriateness criteria for ordering imaging	286	3.37 762	1.30 481	28 3	3.17 315	0.77 76	26 2	2.41 985	0.66 614
H	H	b. Integrating results with clinical examination data	287	4.34 843	0.87 936	28 6	3.51 049	0.61 407	28 3	2.67 845	0.55 779
H	H	c. Applying results in referral/consultation management	118	3.28 814	0.84 834	11 7	2.63 248	0.50 169	11 4	2.56 14	0.58 043
L	L	d. Use of diagnostic ultrasound to guide patient management	57	2.29 825	1.01 709	10 4	1.88 462	0.74 139	71	2.32 394	0.73 241
H	H	3. Laboratory Science a. Screening of lab values	286	3.16 434	1.28 865	28 3	2.84 452	0.86 533	25 8	2.02 326	0.80 818
L	L	b. Appropriateness criteria and recommendations of labs for musculoskeletal conditions	112	2.64 286	1.09 756	11 7	2.29 915	0.64 681	10 8	2.22 222	0.75 298
H	H	c. Integrating results with clinical examination data	56	3.17 857	0.97 435	55	2.56 364	0.53 623	55	2.50 909	0.66 312
H	H	4. Diagnostic tests and measures (e.g. EKG, electrophysiological exams)	236	3.23 729	1.26 274	24 4	3.01 23	0.77 237	21 9	2	0.77 222
H	H	5. Pharmacology a. Pharmacokinetics and pharmacodynamics	290	3.93 448	1.16 131	28 8	3.16 667	0.76 963	28 2	1.96 809	0.77 486

H	H	b. Pharmacological treatment of co-morbidities and common conditions	285	3.93 333	1.17 445	28 7	3.12 544	0.76 067	27 7	1.95 668	0.81 089
H	H	c. Drug interaction and polypharmacy	284	3.59 859	1.25 007	28 6	3.08 741	0.75 583	27 7	1.87 726	0.82 932
H	H	d. Evidence and education in regards to supplements	126	3.80 159	1.45 338	13 2	2.86 364	1.08 264	12 1	1.92 562	0.78 703
H	H	e. Nonsurgical medical interventions (e.g. steroid injections, nerve ablations, medial branch blocks) and implications for primary care physical therapy	268	3.69 403	1.12 996	27 6	2.99 638	0.86 759	26 2	2.31 679	0.72 373
H	H	f. Surgical and invasive interventions (e.g. laparoscopic arthroscopic procedures, joint arthroplasties, cardiac and vascular procedures) and implications for primary care physical therapy	270	3.62 222	1.14 954	27 3	3.07 326	0.81 017	25 9	2.33 977	0.72 631
H	H	g. Population Health & Epidemiology 1. Epidemiology of chronic disease (e.g. implications for lifespan management, impacts on population health)	304	3.50 329	1.18 572	30 5	2.82 623	0.81 068	29 8	2.07 383	0.78 362
H	H	2. Recognition of hallmark signs for chronic disease process and ability to make appropriate referral/consultation s	120	3.25 833	0.89 345	11 9	2.61 345	0.53 851	11 7	2.41 88	0.72 206
H	H	h. Practice Considerations 1.	247	3.73 279	1.16 585	24 7	3.10 526	0.87 713	23 4	2.29 06	0.74 764

		Systems-Based Practice (e.g. awareness of and responsiveness to the larger context and system of health care, and ability to effectively integrate system resources to optimize care)									
H	H	2. Principles of physical therapy evaluation and treatment of patients across the lifespan with musculoskeletal, neuromuscular, cardiovascular, pulmonary, integumentary, or cognitive impairments	156	4.48 718	0.66 708	15 5	3.49 677	0.62 807	15 5	2.82 581	0.44 355
H	H	3. Provision of advanced care across the lifespan for patients who self-refer or are referred to physical therapy	196	4.30 612	0.88 182	19 8	3.42 929	0.71 429	19 2	2.46 354	0.66 216
H	H	4. Models of differential diagnosis and clinical reasoning such as hypothesis-oriented algorithm for clinicians (HOAC) model or the prospect theory	242	4.00 413	1.24 407	24 0	3.26 25	0.86 895	21 9	2.61 644	0.64 886
H	H	5. Collaboration and coordination throughout the continuum of care	248	4.49 597	0.79 471	24 7	3.59 109	0.65 55	24 5	2.79 184	0.46 334
H	H	a. Critical appraisal and application of research findings in primary care physical therapy	276	3.33 333	1.05 371	27 2	3.08 088	0.70 898	26 6	2.48 872	0.68 534
L	L	b. Critical evaluation of clinical research methodology (e.g., quality in research)	115	2.66 957	0.92 454	11 5	2.46 957	0.58 222	11 4	2.44 737	0.72 98

		design, data analysis, and levels of research evidence)									
L	L	c. Critical evaluation of test psychometrics and application in clinical practice (e.g., sensitivity, specificity, likelihood ratio)	116	2.76 724	0.99 876	11 6	2.45 69	0.60 995	11 5	2.40 87	0.75 968

Section 2-Professional Roles, Responsibilities and Values of Primary Care Physical Therapist

H	H	a. Practicing ethical decision-making consistent with the APTA Code of Ethics	202	4.64 356	0.59 99	20 2	3.58 911	0.66 503	17 5	2.48	0.74 925
H	H	b. Demonstrating appreciation and respect for physical therapist scope of practice	224	4.36 607	0.81 462	22 4	3.49 554	0.62 817	20 6	2.36 408	0.69 736
H	H	c. Maintaining state-of-the-art knowledge and skills through participation in continuing professional development (e.g., residency education, fellowships, seminars, structured study, journal clubs, etc.)	227	3.33 48	1.09 009	22 7	3.47 577	0.61 189	22 0	2.36 364	0.66 521
H	H	d. Practicing ongoing reflection and self-evaluation to identify opportunities for development	202	3.87 624	1.09 705	20 2	3.30 693	0.68 738	19 4	2.26 289	0.71 835
H	H	e. Identifying and prioritizing areas for growth and following through as a life-long learner through	202	3.35 644	1.09 348	20 2	3.23 267	0.71 259	19 2	2.24 479	0.64 514

		review of research and professional affiliations									
H	H	f. Continuously assessing practice outcomes to validate physical therapy services based on quality effectiveness, productivity, or service, and identifying opportunities for improvement	202	3.72 277	1.10 736	20 2	3.26 733	0.73 154	19 6	2.21 939	0.68 525
H	H	g. Demonstrating risk management strategies, including informed consent during physical therapy examination and intervention	227	4.44 493	0.77 591	22 7	3.45 374	0.67 923	20 7	2.23 672	0.78 022
H	H	h. Devoting time and effort to effectively recognize and resolve complex problems	202	3.85 644	0.85 471	20 2	3.22 277	0.61 075	19 8	2.30 808	0.66 151
H	H	i. Effectively navigating uncertainty/ambiguity	202	4.08 416	0.97 115	20 1	3.21 393	0.72 733	19 6	2.33 674	0.65 545
H	H	j. Adhering to legally required reporting requirements (e.g. domestic violence, abuse)	222	3.21 171	1.41 908	22 6	3.50 443	0.69 441	20 3	2.04 926	0.81 904
H	H	k. Maintaining a referral base of content experts (medical as well as non-medical) within the community for patient access	226	3.57 965	1.08 948	22 7	3.16 3	0.74 361	21 5	2.06 047	0.71 765
H	H	l. Maintaining readily accessible network of interdisciplinary available resources (medical and non-medical) for	227	3.58 59	1.02 852	22 5	3.19 111	0.69 688	21 9	2.07 763	0.73 472

		consultation and referral									
H	H	m. Identifying and encouraging interdisciplinary practice opportunities	202	3.36 139	1.10 318	20 2	3.02 97	0.69 045	19 1	2.07 853	0.69 518
H	H	n. Promoting the rights of the patient to actively participate in the health care management taking into account the patient's wishes, goals, attitudes, beliefs, and circumstances.	222	4.12 162	0.96 948	22 1	3.35 294	0.65 53	20 8	2.19 231	0.74 958
H	H	o. Remaining current with evolving trends in patient preferences, changes in health policy on international, federal, and local levels.	201	3.32 836	1.13 21	20 1	3.10 448	0.77 719	18 9	1.98 413	0.72 55
L	H	a. Representing primary care physical therapy to other professional organizations	221	2.59 729	1.14 645	22 2	3.02 703	0.77 237	20 7	1.97 585	0.74 024
L	L	b. Participating in professional organizations and activities related to primary care physical therapy	112	1.86 607	0.89 539	11 8	2.27 119	0.64 927	10 3	1.96 117	0.72 656
H	H	c. Maintaining knowledge of current activities of national and international organizations of physical therapy	132	3.62 121	1.58 971	13 3	3.05 263	0.89 032	11 9	2.04 202	0.77 454
L	L	d. Leading and contributing to Health Promotion & Disease Prevention programs 1.	117	2.53 846	1.11 833	11 8	2.45 763	0.63 575	10 7	2.10 28	0.77 623

		Integrating best evidence in development and implementation of health promotion & disease prevention programs at the individual and societal levels									
H	H	2. Promoting health and quality of life for individuals across the lifespan	119	3.48 74	0.79 047	11 9	2.67 227	0.53 851	11 2	2.25	0.76 524
L	L	3. Promoting screening programs for chronic disease identification and prevention	117	2.71 795	1.07 356	11 9	2.47 899	0.55 002	11 3	2.03 54	0.71 874
L	H	e. Marketing and promoting the breadth of physical therapy clinical services as well as professional branding	219	2.83 105	1.18 234	22 1	2.98 19	0.79 18	20 0	1.89 5	0.73 94
L	H	f. Marketing health and financial advantages of investing in prevention and wellness at the individual and societal (community based, healthcare systems) levels.	216	2.64 352	1.19 602	21 9	2.84 932	0.79 571	19 6	1.86 735	0.69 633
H	H	g. Advocating for patients through direct patient care interventions, education, service, research, legislation, and the development of community resources	222	3.31 081	1.23 588	22 2	3.15 766	0.76 544	20 5	2.04 39	0.76 249
L	H	h. Advocating for important policy issues including scope of practice, appropriate	247	2.39 676	1.19 47	25 5	2.94 51	0.72 966	22 8	1.97 368	0.75 63

		payment, and patient access to physical therapy services through relationship building with key players (community stakeholders, healthcare team members, legislators).									
L	H	i. Contributing to periodic practice analyses for state and national associations	186	2.01 613	0.94 426	19 2	2.58 854	0.78 765	16 0	1.87 5	0.75 86
H	H	a. Mentoring physical therapists, physical therapist assistants, physical therapist residents, students, and other health care professionals by participating in clinical education and research related to primary care physical therapy	225	3.07 556	1.19 843	22 5	3.27 111	0.68 29	22 4	2.30 357	0.68 08
L	H	b. Providing evidence-informed primary care physical therapy educational programs to a variety of audiences, including students, other health care professionals, the public, elected officials, political groups and candidates, and third-party payers.	224	2.55 357	1.07 428	22 4	3.02 679	0.74 521	21 6	2.18 982	0.73 205
L	L	c. Providing education and raising awareness on the impact and	112	2.45 536	1.14 6	11 7	2.36 752	0.62 42	10 6	2.15 094	0.71 438

		role of social determinants of health									
L	H	d. Promoting lifespan care by providing information on wellness, disease, disability, and health risks related to gender, culture, and lifestyle.	117	2.92 308	1.09 193	11 9	2.52 101	0.56 522	11 1	2.17 117	0.77 312
H	H	a. Employing effective communication strategies with individuals across the lifespan including verbal, nonverbal, and assistive technologies	226	4.62 389	0.70 877	22 6	3.59 735	0.64 069	22 0	2.44 546	0.62 791
H	H	b. Effectively and efficiently communicating findings to the patient/client and health care team	118	3.82 203	0.48 272	11 8	2.92 373	0.26 656	11 5	2.47 826	0.70 522
H	H	c. Using effective communication skills to manage interpersonal relationships judiciously and empathetically	202	4.51 485	0.75 461	20 2	3.46 535	0.64 745	19 2	2.38 021	0.67 585
H	H	d. Effectively managing relationship/practice building	223	3.67 265	1.12 527	22 2	3.19 369	0.69 475	21 1	2.10 427	0.74 867
H	H	e. Empowering individuals in the management of their own health	227	4.55 507	0.69 148	22 7	3.59 031	0.56 794	22 1	2.36 199	0.67 096
H	H	f. Facilitating collaborative inter-professional communication, team management, and transitions of	226	4.15 929	0.95 746	22 5	3.47 556	0.64 82	22 1	2.37 104	0.64 517

		care for patients/clients									
H	H	g. Addressing cultural and/or social issues that affect the plan of care	227	3.92 952	1.12 272	22 6	3.25 221	0.77 924	21 6	2.03 241	0.73 697
H	H	h. Employing communication skills necessary for effective utilization of technology in telephone and video visits	225	3.16	1.39 872	22 2	2.82 432	0.89 278	18 8	1.96 809	0.76 63
H	H	a. Clients, clients' families, and other health-care professionals (e.g., in-services, support groups, and team meetings)	223	3.24 664	1.10 167	22 3	3.07 623	0.73 431	21 8	2.17 89	0.67 892
L	H	b. Peer review (e.g., chart reviews, peer teaching evaluations)	223	2.75 785	1.14 476	22 3	2.87 444	0.79 55	21 3	2.00 939	0.73 324
L	H	c. Other venues, including the legal system, legislators, corporations, third-party payers, health care regulatory agencies, and health care disparity issues	208	2.51 442	1.22 761	21 8	2.82 11	0.86 941	19 5	1.90 256	0.76 37
H	H	a. Applying principles of evidence-based practice through retrieving, integrating, and critically applying knowledge from the clinical, biomedical, and behavioral sciences while recognizing the limitations of incorporating evidence into practice	221	3.57 014	1.00 037	22 0	3.16 818	0.65 088	21 0	2.15 714	0.69 796

H	H	b. Evaluating the efficacy and effectiveness of examination tools, interventions, and technologies based on available evidence	117	3.20 513	0.96 97	11 8	2.69 492	0.48 054	11 3	2.37 168	0.70 956
H	H	c. Integrating and applying evidence informed approaches in the presentation of health promotion and preventive care programs	220	3.14 546	1.19 234	21 9	3.01 827	0.67 023	20 4	2.05 392	0.72 4
L	H	d. Effectively developing relevant clinical questions, performing literature reviews in real time to efficiently gather information, and implementing best practices	206	2.97 087	1.15 151	20 6	2.96 117	0.72 479	18 7	2.10 16	0.68 419
H	H	e. Recognizing the need for the development of further evidence in primary care practice and the role of research in advancing the body of knowledge in primary care physical therapy	219	3.09 589	1.22 472	22 0	3.07 273	0.73 664	20 1	2.05 473	0.72 249
H	H	f. Recognizing and assessing the risks, benefits, and economics of specific interventions (e.g., including the principle that interventions with little or no evidence for additional benefit, but some increased risk, might be deferred)	220	3.77 273	1.14 405	22 0	3.24 091	0.72 222	21 0	2.24 762	0.70 244

L	H	g. Utilizing advanced knowledge and clinical skill when research questions have not been previously answered	118	2.95 763	1.12 009	11 8	2.62 712	0.58 173	11 4	2.45 614	0.70 573
H	H	h. Utilizing appropriate patient outcome measures to guide patient management, and submitting outcomes to a national registry	196	3.03 061	1.58 489	20 0	2.77 5	0.85 911	16 5	1.98 182	0.76 088
L	L	i. Contributing to the body of evidence by publishing and/or presenting, participating in and disseminating results of investigations (e.g., clinical research, quality assurance programs, patient satisfaction)	104	1.57 692	1.00 187	11 5	2.27 826	0.65 625	10 2	2.28 431	0.78 825
H	H	a. Resource efficiency specific to the patient and the health care system	203	4.04 434	1.11 826	20 3	3.16 749	0.79 074	19 5	2.13 846	0.70 806
H	H	b. Broad levels of hypothesis generation during early subjective examination and development of hypotheses about contributing factors, precautions, contraindications, and management	205	4.39 024	0.79 453	20 5	3.43 415	0.65 814	20 3	2.49 261	0.60 827
H	H	c. Advanced skills in pattern recognition which drive: 1. Expert prioritization of differential diagnosis and systematic assessment to rule in/rule out hypotheses	204	4.38 726	0.76 373	20 4	3.48 529	0.60 765	20 3	2.52 709	0.58 276

H	H	2. Efficient processes to control reasoning in dealing with complex patients with multiple comorbidities	202	4.27 723	0.77 42	20 2	3.48 515	0.60 04	20 1	2.53 234	0.60 844
H	H	3. Expert exam- planning based on appropriate interpretation of subjective examination, including system screening, assessment of pain, sensitivity, and irritability	204	4.44 608	0.73 077	20 4	3.45 098	0.62 189	20 4	2.52 941	0.59 895
H	H	4. Flexibility and openness in the analytic process using metacognition to respond appropriately to emerging data and changing patient status.	203	3.93 103	1.15 834	20 3	3.19 704	0.80 873	19 4	2.33 505	0.72 42
H	H	5. Collaborative reasoning which involves the patient in the patient-centered care process	202	4.48 515	0.72 089	20 2	3.45 545	0.63 127	20 0	2.35 5	0.68 654
H	H	6. Evolving understanding of patient presentation and identifying underlying mechanisms, contributing to patient problem(s).	201	4.44 776	0.76 06	20 2	3.48 515	0.60 863	19 8	2.47 475	0.60 192
H	H	7. Efficient and effective use of algorithms with the ability to avoid (or at least minimize) clinical reasoning errors	201	3.78 11	1.27 744	20 1	3.10 448	0.80 252	18 3	2.30 055	0.67 315

Section 3 - Patient/Client Management/Expectations of the Primary Care Physical Therapist

H	H	a. History: A systematic of gathering data from both the past and the present related to why the patient/client is seeking physical therapy services. Patient and client history is obtained through interview and data from other sources specific to the patient/client (e.g., questionnaires, medical records) including but not limited to: 1. Patient chief complaint(s) including description of symptoms (e.g., 24-hour behavior, aggravating/easing factors, body chart, onset, pain level) - Frequency	113	4.58 407	0.52 992	11 3	3.54 867	0.51 74	10 5	2.48 571	0.68 098
H	H	2. Medical history (e.g., comorbidities, surgical history, family/genetic history, medications/supplements) - Frequency	114	4.61 404	0.52 392	11 5	3.56 522	0.57 933	10 6	2.47 17	0.65 039
H	H	3. Prior diagnostic testing (e.g., consults, imaging, labs, neurological testing) - Frequency	113	4.49 558	0.59 946	11 4	3.39 474	0.61 857	10 9	2.33 028	0.62 443
H	H	4. Previous intervention(s) and response - Frequency	115	4.51 304	0.58 287	11 5	3.36 522	0.67 966	10 7	2.28 972	0.71 387
H	H	5. Prior level of function including level of physical	114	4.57 018	0.56 395	11 4	3.43 86	0.61 017	10 8	2.37 963	0.70 668

		fitness and leisure activities - Frequency									
H	H	6. Psychological function (e.g., memory, reasoning ability, anxiety, depression, morale, and fear avoidance beliefs) - Frequency	114	4.43 86	0.72 911	11 5	3.37 391	0.65 509	11 1	2.26 126	0.67 03
H	H	7. Societal role(s) (e.g., worker, student, spouse, grandparent) - Frequency	114	4.50 877	0.62 748	11 4	3.26 316	0.76 485	10 7	2.21 495	0.78 941
H	H	8. Environmental, social, and economic factors (e.g., physical environment, education, economic stability, social support) - Frequency	113	4.38 053	0.72 357	11 3	3.28 319	0.73 762	10 7	2.21 495	0.72 721
H	H	9. Health behaviors (e.g., nutrition, physical activity, tobacco use, alcohol use, sleep habits, social habits) - Frequency	112	4.29 464	0.69 28	11 2	3.26 786	0.74 715	10 5	2.17 143	0.69 969
H	H	10. Patient goals for treatment - Frequency	111	4.61 261	0.57 479	11 2	3.52 679	0.55 28	10 3	2.36 893	0.75 395
H	H	b. Systems Review is a brief or limited examination of the anatomical and physiological status of the cardiovascular/pulmonary, integumentary, musculoskeletal, and neuromuscular systems, and the communication, affect, cognition, language and learning style of the	98	3.69 388	0.66 438	98	2.86 735	0.34 094	92	2.41 304	0.75 814

		patient/client. (At the clinical specialist practice level baseline information is not simply collected and reported. The advanced practitioner synthesizes this information and applies it specifically considering the pathology, signs and symptoms and uses it for critical clinical decision making.) 1. Multisystem review (e.g. cardiovascular, pulmonary, integumentary, lymphatic, neurological, musculoskeletal, urogenital, gastrointestinal, renal) - Frequency									
H	H	2. Psychological assessment including depression and suicide screening - Frequency	114	4.35 088	0.89 227	11 5	3.39 13	0.63 101	10 9	2.23 853	0.70 578
H	H	3. Assessment of communication affect, cognition, language, and learning style of patient/client. - Frequency	112	4.37 5	0.78 413	11 3	3.24 779	0.73 837	10 7	2.17 757	0.68 423
H	H	4. Early recognition and management of suspected conditions necessitating referral - Frequency	98	3.69 388	0.56 364	98	2.89 796	0.33 644	95	2.56 842	0.62 997
H	H	5. Prioritization of relevant screening procedures based	98	3.86 735	0.39 684	98	2.86 735	0.34 094	95	2.46 316	0.68 122

		on health condition, previous tests and interventions, patient history and observation - Frequency									
H	H	6. Appropriate documentation and communication of systems review results as indicated - Frequency	98	3.89 796	0.39 297	98	2.77 551	0.41 939	91	2.30 769	0.72 56
L	L	c. Tests and Measures: This category includes selection, prioritization, and performance of tests and measures related to and required of specialty practice. 1. Abdominal examination (e.g., renal/hepatic percussion, AAA screening, appendicitis screening) - Frequency	93	2.77 419	1.04 392	98	2.46 939	0.59 559	89	2.21 348	0.69 857
H	H	2. Anthropometric measures (e.g. BMI, weight, height, waist circumference) - Frequency	111	3.51 351	1.32 709	11 2	2.67 857	0.86 174	10 0	1.81	0.74 799
H	H	3. Arousal, Attention, and Cognition (e.g. arousal and awareness scales, ability to process commands, communication and language barriers, level of consciousness, motivation and capacity to participate in intervention,	112	4.07 143	1.08 814	11 1	3.09 009	0.80 396	10 5	2.03 81	0.73 28

		orientation to person, place, time and situation, and recall ability)									
H	H	4. Circulation (e.g., arterial, venous, lymphatic) - a. Cardiovascular signs including heart rate, rhythm, and sounds; pressures and flow; and superficial vascular responses (e.g., auscultation, electrocardiography, girth measurement, observations, palpation, sphygmomanometry, ankle-brachial index, perceived exertion scales) - Frequency	112	3.91 964	1.13 215	11 2	3.25 893	0.73 209	10 6	2.08 491	0.70 533
H	H	b. Cardiovascular symptoms (e.g., angina, claudication) - Frequency	111	3.83 784	1.13 25	11 2	3.34 821	0.71 923	10 6	2.20 755	0.65 78
L	H	c. Differentiation of peripheral edema (e.g. vascular insufficiency, cardiac associated edema, lymphedema) - Frequency	98	2.89 796	0.91 37	98	2.57 143	0.51 773	92	2.09 783	0.66 398
H	H	d. Physiological responses to position change (e.g., autonomic responses, central and peripheral pressures, heart rate and rhythm, respiratory rate and rhythm, and ventilatory pattern) - Frequency	112	3.85 714	1.13 786	11 2	3.21 429	0.72 818	10 6	2.18 868	0.69 163

H	H	5. Diagnostic testing (e.g. laboratory tests, imaging, ultrasound and electrophysiologic testing) - Frequency	112	3.86 607	1.13 499	11 2	3.15 179	0.73 778	10 7	2.28 037	0.68 397
H	H	6. Dynamic assessment with and without the use of assistive, adaptive, orthotic, or other devices/equipment a. Gait & locomotion (e.g., functional performance tests such as gait speed, gait indexes, 6-min walk, Timed Up-and-Go) - Frequency	174	4.11 494	0.84 56	17 4	3.18 391	0.68 895	16 2	2.43 827	0.73 037
H	H	b. Movement analysis (e.g., real time observation, video, technology) - Frequency	111	4.15 315	1.02 866	11 1	3.26 126	0.80 579	10 6	2.29 245	0.74 28
H	H	c. Motor function (e.g., assessment of motor learning and motor control) - Frequency	112	4.30 357	0.87 857	11 1	3.31 532	0.76 256	10 7	2.35 514	0.69 026
H	H	d. Coordination - Frequency	111	4.25 225	0.94 838	11 1	3.25 225	0.71 945	10 2	2.23 529	0.67 745
H	H	e. Balance (e.g., vestibular, proprioceptive, visual) - Frequency	112	4.41 964	0.76 686	11 2	3.43 75	0.68 156	10 8	2.34 259	0.69 929
H	H	f. Activities of daily living performance - Frequency	110	4.26 364	0.86 393	11 1	3.33 333	0.67 868	10 2	2.24 51	0.75 04
H	H	g. Safety assessment (e.g. falls risk assessment, ergonomics) - Frequency	110	4.30 909	0.78 688	11 1	3.42 342	0.68 157	10 5	2.36 191	0.72 223
H	H	7. Illness behavior assessment (e.g. Screen Assist, Keele STaT Back	109	3.92 661	1.17 62	11 1	3.16 216	0.86 907	10 5	2.17 143	0.71 33

		Screening Tool depression screen) - Frequency									
H	H	8. Integumentary assessment (e.g., signs of inflammation, soft tissue swelling/inflammatio n/infection, wounds, skin cancer screening) - Frequency	173	3.41 041	1.13 573	17 3	2.85 549	0.66 204	15 3	2.16 34	0.69 261
H	H	9. Joint integrity (e.g., joint mobility assessment to include active and passive range of motion, passive accessory motions, response to manual provocation) - Frequency	113	4.41 593	0.71 621	11 2	3.41 071	0.62 318	10 6	2.27 359	0.65 513
H	H	10. Lymphatic system function (e.g., girth and volume measurements, palpation, observation of skin texture) - Frequency	177	4.04 52	1.20 99	17 8	3.24 157	0.79 052	16 2	2.24 074	0.72 064
H	H	11. Musculoskeletal assessment (e.g., muscle performance, endurance, strength, power, muscle tone, fracture screening) - Frequency	176	4.34 091	0.59 303	17 7	3.28 814	0.59 498	16 2	2.56 173	0.67 742
H	H	12. Neurologic assessment a Neuromotor screen (e.g., upper and lower motor neuron screens including tests such as Babinski and Hoffman's) - Frequency	114	4.12 281	0.87 381	11 4	3.44 737	0.61 099	11 0	2.40 909	0.69 461

H	H	b. Neuromechanical assessment (e.g. nerve mobility/neurodynamics) - Frequency	114	3.83 333	1.03 835	11 4	3.11 404	0.74 974	10 8	2.28 704	0.64 2
H	H	c. Neuromotor development and sensory integration (e.g., assessment of age appropriate development, dexterity, coordination, and integration of somatosensory, visual, and vestibular systems). - Frequency	108	3.62 963	1.15 68	11 0	3.03 636	0.80 054	10 5	2.17 143	0.71 33
H	H	d. Reflex integrity (e.g., including normal and pathological reflexes) - Frequency	113	4.00 885	1.00 442	11 4	3.18 421	0.72 339	10 2	2.19 608	0.74 514
L	H	e. Cranial nerve integrity - Frequency	110	2.94 546	1.19 507	11 1	3.02 703	0.80 294	98	2.12 245	0.72 176
H	H	f. Sensory integrity (e.g., assessment of superficial sensation, dermatomes, myotomes, proprioception, and kinesthesia). - Frequency	110	4	1.04 047	11 0	3.20 909	0.77 927	10 2	2.30 392	0.72 834
H	H	13. Observation (e.g. posture, deformity, symmetry, affect, transfers, and motor control) - Frequency	110	4.50 909	0.72 625	11 0	3.37 273	0.72 768	10 3	2.43 689	0.69 55
H	H	14. Orthotic, protective, prosthetic, and supportive devices (e.g., assessment of appropriateness, use, remediation of impairment)	109	3.65 138	0.99 421	10 9	3.06 422	0.76 103	10 3	2.12 621	0.68 14

		alignment and fit, safety) - Frequency									
H	H	15. Pain (e.g., assessment using questionnaires, behavioral scales, visual analog scales and prioritizing exam procedures according to localized vs widespread pain and sensitivity) - Frequency	110	4.59 091	0.59 502	11 0	3.32 727	0.67 876	10 1	2.32 673	0.73 633
H	H	16. Palpation (e.g. edema, bony landmarks, muscles, tendons, ligaments, presence of abnormal tissue examination such as masses or deformities, symptom manifestation/modification) - Frequency	110	4.56 364	0.65 703	11 0	3.35 455	0.69 844	10 4	2.47 115	0.68 204
H	H	17. Pulmonary assessment (e.g. breath sounds/rate, nail clubbing, lung auscultation) - Frequency	106	3.30 189	1.23 574	10 9	3	0.76 98	10 1	1.98 02	0.69 253
H	H	18. Soft tissue assessment (e.g., myofascial mobility, pain pressure threshold) - Frequency	110	4.04 546	1.09 533	11 0	3.10 909	0.84 967	99	2.20 202	0.75 566
H	H	19. Special tests specific to working diagnosis are appropriately sequenced and prioritized with acceptable psychometric properties - Frequency	109	4.29 358	0.85 313	10 9	3.20 184	0.75 498	10 8	2.33 333	0.73 625
L	H	20. Vestibular assessment (e.g. BPPV tests, vestibulo-ocular	95	2.83 158	0.89 505	97	2.69 072	0.52 759	91	2.23 077	0.68 438

		reflex, oculomotor function, HINTS exam, Dizziness Handicap Inventory)									
H	H	d. Re-examination: Ongoing assessment and reassessment throughout the continuum of care - Frequency	227	4.59 031	0.72 533	22 7	3.69 163	0.55 818	22 6	2.79 646	0.48 368
H	H	a. Interpreting and integrating data from the examination (considering patient/client goals, stage/irritability of condition, personal and environmental factors) across the ICF domains to determine a diagnosis, prognosis and plan of care - Frequency	109	4.29 358	0.87 457	10 9	3.33 945	0.65 575	10 4	2.50 962	0.60 732
H	H	b. Integrating findings from other health care professionals and ancillary testing (e.g., imaging, labs, electrophysiological studies, pulmonary function test results) - Frequency	171	4.09 357	0.67 955	17 2	3.15 116	0.56 231	16 6	2.35 542	0.64 211
H	H	c. Identifying current, emerging or potential "yellow" and/or "red flags" which may warrant caution throughout client management, medical referral, or both - Frequency	109	4.47 706	0.60 241	10 9	3.57 798	0.56 591	10 5	2.54 286	0.62 062
H	H	d. Triaging patients as first contact providers at an advanced	178	3.78 652	1.22 102	17 4	3.50 575	0.64 285	17 1	2.59 649	0.62 853

		competency level - Frequency									
H	H	e. Linking examination findings to patient/client activity, quality of life, and wellness as established by the ICF - Frequency	108	4.16 667	0.89 129	10 9	3.09 174	0.75 205	10 2	2.27 451	0.70 58
H	H	f. Determining risk stratification (e.g., risk for chronicity or poor outcome, risk for delayed return to activity/work, suicide risk, depression) - Frequency	108	4	0.93 729	10 9	3.22 018	0.72 467	10 6	2.18 868	0.71 864
H	H	a. Conducting rapid differential diagnosis and triage of emergent versus nonemergent health conditions - Frequency	98	3.54 082	0.72 037	98	2.86 735	0.34 094	95	2.55 79	0.61 395
H	H	b. Continuously refining the working hypothesis (e.g. primary hypothesis, competing hypotheses, complicating factors such as co-morbidity and economic/social factors) - Frequency	98	3.79 592	0.47 536	98	2.78 571	0.41 244	96	2.46 875	0.66 417
H	H	c. Using advanced pattern recognition to differentially diagnose by efficiently organizing examination data into recognized clusters or categories - Frequency	98	3.65 306	0.61 093	98	2.70 408	0.50 173	95	2.50 526	0.66 642
H	H	d. Avoiding common diagnostic reasoning errors such as anchoring, confirmation bias,	109	4.10 092	0.99 018	10 9	3.18 349	0.75 969	10 8	2.37 963	0.69 333

		and other sources of medical error - Frequency									
H	H	a. Establishing a prognosis, including the predicted optimal level of improvement in function and the amount of time needed to reach that level - Frequency	109	4.48 624	0.61 786	10 9	3.34 862	0.71 202	10 6	2.41 509	0.64 539
H	H	b. Selecting plan of care to include referral to another health care professional, physical therapy intervention, or further examination - Frequency	109	4.43 119	0.71 19	10 9	3.48 624	0.58 713	10 8	2.50 926	0.63 386
H	H	c. Developing a plan of care that prioritizes and links interventions to the working hypothesis and patient/client goals - Frequency	98	3.85 714	0.37 991	98	2.85 714	0.35 173	95	2.42 105	0.70 829
H	H	d. Responding to emerging data from examinations and interventions. 1. Assessing response to intervention (changes in signs and symptoms; new symptoms; changes in tissue response, mobility, and function) - Frequency	109	4.51 376	0.63 267	10 9	3.44 954	0.68 7	10 6	2.50 943	0.58 952
H	H	2. Interpreting the significance of changes in signs and symptoms as they relate to the plan of care, and modifying/redirectiong examination and	108	4.47 222	0.66 217	10 9	3.46 789	0.60 198	10 6	2.59 434	0.59 807

		interventions accordingly (determine relationship between expected result and actual result, cause of change, relevance of change) - Frequency									
H	H	a. Coordination, Communication, and Documentation 1. Communicating effectively with patients/clients, family members, caregivers, practitioners, consumers, payers, and policy makers about health issues - Frequency	108	4.46 296	0.66 172	10 9	3.44 954	0.58 51	10 7	2.44 86	0.71 683
H	H	2. Discussing rationale for physical therapy examination and intervention procedures, including use of current best evidence, with patients/clients, peer professionals, and payers - Frequency	109	4.43 119	0.64 359	10 9	3.41 284	0.58 072	10 7	2.45 794	0.74 328
H	H	3. Collaborating as a health care team member and leader to ensure that physical therapy is a part of an appropriate, culturally competent, comprehensive plan for care - Frequency	109	4.23 853	0.83 776	10 9	3.41 284	0.61 178	10 7	2.42 056	0.71 424
H	H	4. Adapting communication to patient/client needs	107	4.48 598	0.61 987	10 8	3.46 296	0.60 258	10 2	2.33 333	0.73 57

		(e.g., educational/cognitive level, psychosocial needs) - Frequency									
H	H	5. Completing thorough documentation following guidelines and specific documentation formats required by the practice setting (e.g., communication with payer sources for maximizing treatment services and resources, legal protection of staff, patient, and/or facility) - Frequency	108	4.5	0.74 256	10 8	3.35 185	0.76 506	10 3	2.27 185	0.75 659
H	H	b. Patient/Client-Related Instruction 1. Providing instruction about diagnosis, prognosis, intervention strategies, responsibility/self-management within the plan of care - Frequency	109	4.53 211	0.61 717	10 9	3.43 119	0.59 887	10 6	2.48 113	0.69 325
H	H	2. Developing mutually acceptable goals - Frequency	109	4.45 872	0.71 404	10 8	3.43 519	0.63 058	10 2	2.39 216	0.70 58
H	H	3. Using biopsychosocial and biomedical models - Frequency	109	4.00 917	1.02 285	10 9	3 3	0.80 508	99	2.20 202	0.76 904
H	H	4. Applying pain physiology and dose response - Frequency	109	4.15 596	0.88 375	10 9	3.19 266	0.77 552	10 1	2.25 743	0.73 012
H	H	5. Providing instruction on disease prevention and wellness - Frequency	108	4.06 482	0.85 678	10 9	3.18 349	0.64 068	10 3	2.12 621	0.77 56

H	H	6. Integrating behavior modification and cognitive-behavioral approaches (mental) - Frequency	109	3.93 578	1.02 085	10 9	3.08 257	0.75 925	10 2	2.14 706	0.72 299
H	H	7. Planning for end of episode of care - Frequency	108	4.13 889	0.91 159	10 8	3.25 926	0.67 492	10 2	2.23 529	0.69 191
L	H	c. Procedural Interventions (This category includes selection, prioritization, and knowledge of performance ability for procedural interventions related to and required of specialty practice.) 1. Airway clearance techniques (e.g., breathing strategies, manual/mechanical techniques, and positioning) - Frequency	101	2.55 446	1.33 772	10 2	2.77 451	0.92 176	88	1.90 909	0.76 769
L	H	2. Assistive technology (e.g. seating, wheelchair, prosthetics) - Frequency	104	2.92 308	1.13 798	10 5	2.86 667	0.77 294	96	1.96 875	0.70 267
H	H	3. Body mechanics training and ergonomic modification counseling - Frequency	108	4.12 963	0.86 568	10 7	3.16 822	0.72 014	10 2	2.24 51	0.72 353
L	H	4. Electrotherapeutic modalities (integrating motor learning and motor control concepts into the application of electrotherapeutic modalities such as biofeedback and NMES) - Frequency	106	2.98 113	1.12 953	10 7	2.62 617	0.91 655	96	1.77 083	0.71 788

H	H	5. Functional training in self-care and in domestic, education, work, community, social, and civic life (e.g., ADL and IADL training, environmental modification recommendations to optimize independence, task-specific functional training, cues and adjustments of faulty biomechanics) - Frequency	171	3.78 363	0.92 353	17 1	2.88 889	0.68 121	16 1	2.13 044	0.75 109
H	H	6. Gait training (general, with assistive devices, and with technology) - Frequency	108	4.21 296	0.80 942	10 8	3.28 704	0.73 689	99	2.30 303	0.74 853
H	H	7. Graded exposure/ graded activity - Frequency	107	4.14 953	0.98 865	10 7	3.26 168	0.75 656	10 4	2.24 039	0.73 068
L	H	8. Integumentary repair and protection techniques (e.g., managing positioning/postures, orthotic selection, protective and supportive device recommendations, debridement, wound therapy, dressings, and modalities) - Frequency	104	2.64 423	1.26 888	10 5	2.85 714	0.78 97	98	1.92 857	0.77 659
H	H	9. Manual therapy (e.g. soft tissue mobilization, joint mobilization/manipulation, dry needling, lymphatic drainage, visceral therapy) - Frequency	109	4.15 596	1.00 161	10 9	3.19 266	0.84 412	10 4	2.27 885	0.70 307

H	H	10. Neurological therapy treatment (e.g., task specific neuromuscular reeducation, balance activities, gait training) - Frequency	108	3.62 963	1.02 85	10 8	3.13 889	0.70 324	10 4	2.14 423	0.65 978
H	H	11. Plan specific type and dosage of home/independent exercise/treatment programs, identifying indications/contraindications - Frequency	108	4.46 296	0.68 938	10 8	3.39 815	0.68 276	10 4	2.38 462	0.75 438
H	H	12. Prescription, application and/or fabrication of protective, adaptive, or supportive device or equipment (e.g., orthotics, braces, serial casting, wheelchairs, kinesiotaping) - Frequency	106	3.38 679	1.10 902	10 6	2.93 396	0.79 605	10 0	2.06	0.66 393
H	H	13. Prevention, Wellness, and Health Promotion Services a Providing culturally appropriate physical therapy services for prevention, health promotion, and fitness and wellness programs to individuals, groups, and communities	176	3.20 455	1.20 151	17 8	3.04 494	0.71 954	16 6	1.98 193	0.75 857
H	H	b. Promoting health and quality of life for patients/clients by providing information on health promotion, fitness, wellness, disease, impairment.	178	3.93 258	1.02 839	17 7	3.29 379	0.65 159	16 9	2.15 976	0.73 471

		functional limitations, disability injury prevention, secondary prevention in chronic disease, disability managements and health risks related to age, gender, culture, and lifestyle - Frequency									
H	H	c. Providing education, behavior strategies, referral opportunities, and identification of supportive resources for adherence to health care recommendations (e.g. stress management, weight management, nutritional strategies, sleep health, alcohol moderation, substance-free and violence-free living) - Frequency	175	3.57 714	1.07 935	17 6	3.10 796	0.71 294	16 7	1.92 814	0.76 496
H	H	14. Proprioception training (e.g., repositioning balance, agility) - Frequency	108	4.22 222	0.91 031	10 8	3.24 074	0.80 733	10 4	2.25	0.73 405
L	H	15. Telehealth services (e.g., phone, video) as allowed by law - Frequency	171	2.08 187	1.20 013	17 1	2.52 047	0.89 666	13 7	1.89 781	0.73 048
H	H	16. Therapeutic exercise (e.g., aerobic capacity and endurance, motor control and coordination, muscle	108	4.31 482	0.69 239	10 8	3.29 63	0.63 037	10 2	2.25 49	0.72 694

		strengthening and endurance) - Frequency									
H	H	17. Vestibular training (e.g. canalith repositioning maneuvers, gaze stabilization exercises) - Frequency	104	3.22 115	1.01 404	10 7	3.10 28	0.76 398	98	2.11 225	0.68 688
H	H	a. Assessing remediation of activity and participation limitations, and promotion of primary and secondary prevention - Frequency	35	3.57 143	0.69 814	35	2.57 143	0.50 21	35	2.14 286	0.73 336
H	H	b. Choosing appropriate, evidenced-based outcome measure tools to determine initial and long-term responses to intervention (e.g., specific tools such as STarT BACK, PROMIS tools, Lower Extremity Functional Scale and functional assessment tools such as Time Up and Go, Gait Speed, 30 second sit to stand tests) - Frequency	108	4.26 852	0.88 187	10 8	3.20 37	0.75 825	10 3	2.19 418	0.67 24
H	H	c. Determining attainment of agreed-upon functional goal(s) and level of patient/client satisfaction - Frequency	108	4.26 852	0.79 257	10 8	3.29 63	0.72 678	10 2	2.25 49	0.72 694
H	H	d. Assessing efficacy of resources used to	108	3.88 889	1.03 521	10 8	3.12 963	0.77 451	10 4	2.05 769	0.74 816

		achieve patient outcomes - Frequency									
H	H	a. Efficiently recognizing signs and symptoms necessitating urgent referral to physician or emergency medical care - Frequency	97	3.30 928	0.92 827	98	2.96 939	0.17 315	94	2.64 894	0.59 942
H	H	b. Referring and/or consulting with other professionals for further examination as appropriate, based on systems review and medical screening - Frequency	98	3.40 816	0.82 283	98	2.88 776	0.31 729	95	2.49 474	0.63 369
H	H	c. Referring for needs beyond the scope of physical therapy practice - Frequency	98	3.27 551	0.85 892	98	2.89 796	0.30 426	94	2.43 617	0.64 855
H	H	d. Collaborating and coordinating patient management throughout the continuum of care - Frequency	98	3.55 102	0.67 538	98	2.79 592	0.40 51	94	2.38 298	0.68 95
L	L	e. Recognizing the need for and facilitate referrals for palliative and hospice care - Frequency	86	2.11 628	1.13 156	95	2.36 842	0.66 927	86	1.96 512	0.78 886

APPENDIX I: Primary Care Practice Analysis Technical Report

Introduction and Background

This report provides a detailed summary of the process used to conduct the practice analysis for the Primary Care Physical Therapy specialty area. It is organized to be compliant with the *Petitioner's Guide for Specialty Recognition* (American Board of Physical Therapy Specialties, 2021). The report describes each step taken to conduct the practice analysis and the subsequent results of these steps.

A practice analysis is a systematic study of professional practice behaviors and content knowledge that specialty practice comprises. The goal of the practice analysis was to validate the proposed Description of Advanced Clinical Practice in Primary Care. The data are used to describe specialty practice in primary care physical therapy. This Description of Specialty Practice (DSP) defines the primary care specialist certification examination content areas.

History of Specialization in Primary Care Physical Therapy

In 2015, The House of Delegates adopted the motion to *Explore the Roles of Physical Therapists in Primary Care Teams*. The American Physical Therapy Association was charged to investigate and identify the roles of physical therapists in primary care, those services of physical therapists that may qualify as components of primary care delivery; and the current and future opportunities for physical therapists to integrate these roles and services into practice, education, and research. To meet this charge, an APTA staff workgroup was established consisting of physical therapists with extensive experience working in primary care delivery models located in the United States, Canada, and the Caribbean region. The extensive literature review led to the creation of a perspectives paper, titled *The Roles of Physical Therapists on Primary Care Teams*. The APTA Board of Directors subsequently recommended that APTA “consider pursuit of primary care as an APBTS area of specialty practice” in the final report to the 2017 House, titled *Explore the Roles of Physical Therapists in Primary Care Teams*.

To investigate the feasibility of primary care as an area of specialty practice, a subject matter expert taskforce was formed by members of APTA’s House of Delegates (led by Hadiya Green Guerrero PT, DPT and consultant Jean Bryan Coe, PhD). This taskforce created a Description of Specialty Practice (DSP), followed by a validation process through formal practice analysis survey administration. Phase one of the petition indicating demand and need for this area of specialty practice was approved in May 2020. It was determined that a supplemental practice analysis survey addressing additional content areas, and eliciting responses from clinicians practicing across a broader range of practice areas and settings was needed.

The APTA Federal Primary Care Special Interest Group was formed in June 2019, and took lead on phase two of this petition starting in the summer of 2020. During phase two, a new 11-member subject matter expert taskforce (led by Ashley Cassel, PT, DPT, OCS) was formed consisting of some members from the phase one group and new members strategically selected to represent a diverse group of professionals from various practice settings, various areas of

clinical practice, as well as diverse ethnic and geographic backgrounds. APTA Federal hired consultants from the Human Resources Research Organization (HumRRO), Tim McGonigle, PhD and Jackson Millard, to guide the group through completion of the petition. The group worked together via email and virtual conferences to complete a supplemental practice analysis survey. Board certified clinical specialists across all areas of physical therapy specialty practice and experienced clinicians working in various practice settings who self-identified as primary care physical therapist specialists were surveyed to validate advanced level competency areas. Based on the survey data, the description of specialty practice was developed to reflect the terminology and concepts contained in the *Guide to Physical Therapist Practice*.

Technical Approach

A. Project Team Members

The phase one practice analysis taskforce was formed by members of APTA’s House of Delegates (led by Hadiya Green Guerrero PT, DPT and consultant Jean Bryan Coe, PhD). The taskforce created a Description of Specialty Practice (DSP), followed by a validation process through formal practice analysis survey administration in 2018. The phase two taskforce, which conducted a supplemental and revised practice analysis survey administration in 2023 was led by the APTA Federal Primary Care Special Interest Group. The 11-member subjective matter expert (SME) workgroup (led by Ashley Cassel, PT, DPT, OCS) consisted of a diverse group of professionals from various practice settings (i.e., federal/non-federal, rural, academia, public health, prior emergency department experience), various areas of clinical practice (i.e., orthopaedics, neurology, sports, women’s health, pediatrics, geriatrics, lymphedema/cancer rehab), as well as diverse ethnic and geographic backgrounds. Additionally, APTA Federal hired new consultants from the Human Resources Research Organization (HumRRO), Tim McGonigle, PhD and Jackson Millard. HumRRO is a non-profit research organization based in Alexandria, VA and specializing in development and evaluation of assessments for credentialing, education, and the workplace. Table 1 below summarizes the names, credentials, and roles of each team member.

Table 1. Project Team Members

Project Team Member	Credentials	Role	Address
Hadiya Green Guerrero	PT, DPT, SCS	Phase 1 Project Coordinator	Washington, DC
Ashley Cassel	PT, DPT, OCS	Phase 2 Project Coordinator	Lakeville, MN
Damien Avery	PT, DPT, OCS	Phase 1 SME Group Member	Durham, NC
Tony Bare	PT, DPT, ATC, OCS	Phase 1 SME Group Member	Laramie, WY
Johanna Gabbard	PT, DPT, OCS, FAAOMPT	Phase 1 SME Group Member	Ventura, CA
Mary Kay Hannah	PT, DPT, OCS, SCS	Phase 1 SME Group Member	Whitsett, NC

Project Team Member	Credentials	Role	Address
Bob Rowe	PT, DPT, DMT, MHS, FAPTA	Phase 1 SME Group Member	Jacksonville, FL
Mark Shepherd	PT, PDT, OCS, FAAOMPT	Phase 1 SME Group Member	Severna Park, MD
Jason Silvernail	PT, DPT, DSc, OCS	Phase 1 SME Group Member	Savannah, GA
Brian Young	PT, DSc, OCS, FAAOMPT	Phase 1 SME Group Member	Schertz, TX
Rebecca Byerley	PT, DPT	Phase 1 & 2 SME Group Member	Soldotna, AK
John Heick	PT, DPT, PhD, OCS, NCS, SCS	Phase 1 & 2 SME Group Member	Flagstaff, AZ
Ivan Matsui	PT, FAAOMPT	Phase 1 & 2 SME Group Member	Oakland, CA
Christy Gantt	PT, DPT	Phase 2 SME Group Member	Waco, TX
Mathew Garber	PT, MPT, DSc, OCS, FAAOMPT	Phase 2 SME Group Member	Fort Belvoir, VA
Ashish Kakar	PT, DPT, OCS	Phase 2 SME Group Member	Derwood, MD
Evan Kelley	PT, DPT, OCS, FAAOMPT	Phase 2 SME Group Member	Manchester, NH
Frederick Lief	PT, DPT, OCS, CWS	Phase 2 SME Group Member	Anchorage, AK
Amanda Simone	PT, DPT, LANA	Phase 2 SME Group Member	Woodbury, MN
Steven Ambler	PT, DPT, PhD, MPH, OCS	Contributor	Clayton, MO
Jeremy Houser	PT, DPT, PhD, OCS	Contributor	Terre Haute, IN
Carleen Jogodka	PT, DPT, OCS	Contributor	Tucson, AZ
Andrea Johnson	PT, DPT, OCS	Contributor	Sellersburg, IN
John Kravic	PT, DPT, OCS	Contributor	Barrington, NH
Katie O'Bright	PT, DPT, OCS	Contributor	Palatine, IL
Lauren Plum	PT, DPT, OCS	Contributor	Grinnell, IA
Christopher Ryer	PT, DPT, OCS	Contributor	Eagan, MN
Ali Schoos	PT, DPT, OCS	Contributor	Bellevue, WA
Steven Spoonemore	PT, DPT, OCS	Contributor	Anchorage, AK
William Stokes	PT, DPT, OCS	Contributor	San Diego, CA

Project Team Member	Credentials	Role	Address
Kenneth Eric Truesdell	PT, DPT, OCS	Contributor	Fairport, NY
Jennifer Turner	PT, DPT, OCS	Contributor	Fort Gibson OK
Jennifer Walker	PT, DPT	Contributor	West Haven, CT
Adam Wielechowski	PT, DPT, OCS	Contributor	Chicago, IL
Anita Bemis-Dougherty	PT, DPT	APTA Contributing Staff	Alexandria, VA
Bill Boissonnault	PT, DPT, DHSc, FAAOMPT, FAPTA	APTA Contributing Staff	Madison, WI
Sarah Miller	Sr. Specialist APTA	APTA Contributing Staff	Alexandria, VA
Jean Bryan Coe	PT, DPT, PhD	Phase 1 Consultant	Rockport, TX
Tim McGonigle	PhD	Phase 2 Consultant	HumRRO (Alexandria, VA)
Jackson Millard	MS	Phase 2 Consultant	HumRRO (Alexandria, VA)

B. Sampling Strategy

In this section, we provide information on the groups surveyed, the follow-up procedure for non-respondents, and provide demographic information on the respondents. Although HumRRO was only involved in the phase two survey, we provide information on the phase one survey as well since the data from phase one were combined with the data from phase two for the final analysis.

Groups Surveyed, Number Surveyed, and Response Rate

Several groups were surveyed across the course of this project. An initial pilot survey was conducted in spring 2018 followed by a “Phase 1” survey conducted between March and October 2018. Following Board feedback, a “Phase 2” survey was conducted in March 2023.

Phase 1 Pilot Survey

For the phase 1 pilot test, a small convenience sample of subject matter experts identified by the SME group (N =25) as primary care specialists resulting in 14 responses (56% response rate). Notably, only three pilot respondents were practicing in a rural setting. The SME group felt that this was likely due to the makeup of the convenience sample; however, because of this finding, the sampling plan for the final survey was changed to focus random sampling, in part, on APTA members in rural settings with 5 years of practice experience.

Phase 1 Survey

In March 2018, the phase 1 survey was distributed electronically to 11,750 physical therapists. This list included targeted groups of Federal Section members, Rural Health Special Interest

Group members, the remainder of the convenience sample the SME group identified for the pilot survey, and uniformed services PTs who self-identified they were willing to participate. However, the vast majority were randomly selected APTA members who were members of multiple sections (not counting education, research, or private practice). Results from the March 2018 surveys were as follows:

- 146 answered NO to 1 of the first 3 questions and therefore were screened out from completing the remainder of the survey
- 77 answered YES to the first 3 questions and completed the survey
- 116 answered YES to the first 3 questions but did not fully complete the survey.

Review of the 116 non complete responses indicated that 60 respondents did not respond to questions beyond the first three qualification questions. The remaining 56 respondents completed the majority of the survey sections before stopping the survey (e.g., 30 stopped after Section 1, 20 after Section 2). Based on this information, the SME group decided to include the data from the 56 incomplete surveys. The SME group remained concerned with the overall low number of responses. Written comments indicated that the overall length of the survey was the basis for partial responses.

Based on that information, the Group made the difficult decision to split the survey and conduct a second fielding of the final survey. Respondents were randomly sent either Sections 1, 2, 4, and 5 or 3, 4 and 5. The split survey was sent to another large random sample of APTA members (N = 8,000) in September 2018. This sample was totally random and not targeted in any way as practicing in Primary Care. Last, over the summer, staff generated a list of 140 individuals who had heard about the practice analysis survey and identified themselves as primary care providers and willing to participate. Many of these PTs heard about the survey via an APTA Blog that SME members wrote and managed. Links were sent to that third group in September. The survey was closed Oct 31, 2018. In total, there were 1,166 responses to the phase 1 survey, resulting in a response rate of 9.9%. Specifically,

- 223 (2%) respondents answered YES to the first 3 questions and completed the survey
- Of the 223 respondents, 146 completed the split survey
- 396 (3.4%) respondents answered YES to the first 3 questions and started but didn't complete the survey. However, since most of the non-completing respondents stopped at the end of a section, the partial data was included in the data analysis.
- 514 respondents answered NO to at least one of the first 3 questions and therefore were screened out from completing the remainder of the survey
- 33 respondents answered NO to at least one of the first 3 questions but did not finish the third question so their survey was incomplete. These respondents were also screened out from completing the remainder of the survey.

Phase 2 Survey

In October 2021, the phase 2 SME group and the HumRRO consultants conducted a workshop to thoroughly review phase 1 processes and progress as well as ABPTS/ABPTRFE evaluation report comments and feedback. One of the Board's comments was that the analysis was not done according to the *Petitioner's Guide* decision rules. HumRRO reanalyzed the survey data

according to the *Petitioner's Guide* decision rules. In December 2021, a workgroup reviewed each competency with the new decision rules from the *Petitioner's Guide*. This led to an exclusion of 8 competencies rather than the 10 that were excluded previously. The workgroup also reviewed all existing DSPs and did not identify any missing content in the draft Primary Care DSP that would warrant a supplemental survey.

The phase two taskforce submitted a report to the Board in February 2022 and received feedback from the Board in July 2022 suggesting that a supplemental survey was deemed necessary. The phase two workgroup met in July 2022 and discussed the Board's concerns regarding the limitations of the original survey and worked to provide feedback and updates to the practice analysis survey. The workgroup decided to make sure we capture a full scope of primary practice by sending a) the full survey to participants that had not participated previously and b) a supplemental survey to those who participated previously to respond to the additions of the practice analysis survey. The revised version of the full practice analysis survey and supplemental survey was approved February 2023.

Data collection commenced March 2023 and was disseminated to 5,730 physical therapists. During the dissemination it was decided to split the survey to gather more responses similarly to how the phase one survey was split. There were 67 responses to the supplemental survey and 116 responses (some of those partial with a total completed response of 100).

Follow-up Procedure for Non-Respondents

For both the phase one and phase two surveys, ABPTS staff sent multiple follow up emails to non-respondents and to those who had partially completed the survey. Respondents were given an opportunity to call or e-mail the project coordinator or project consultant if they had questions about the survey. Across surveys, fewer than 10 potential respondents called or emailed, and their questions were related to eligibility to complete the survey. The phase two lead and the consultants monitored survey response rates week-by-week to determine how long to keep the survey open.

The SME group had concerns about the overall low number of responses during the phase 1 survey and ended up conducting two administrations of the phase 1 survey (as noted above in the section on sampling). Written comments regarding the first administration of the phase 1 survey indicated that the overall length of the survey was the basis for partial responses and so for the second administration of the phase 1 survey was split into three sub-surveys in which the sample was randomly sent either Sections 1, 2, 4, and 5 or 3, 4 and 5. The phase 2 survey was also split such that those who had not participated previously received the full survey while those who had completed the "phase 1" survey received a supplemental survey containing only the new questions added in phase 2.

Respondent Demographics

The phase 1 survey was sent out in 2018 to a total sample of 11,750 and there were 1,166 responses for a response rate of 9.9%. The phase 2 survey was sent in 2023 to a sample of 5,730 and there were 116 responses for a response rate of 2%. Data were combined across the phase 1 and phase 2 survey efforts resulting in a total of 1,282 responses. Note that some

demographic questions were changed between the administrations of the phase 1 and phase 2 surveys, so the demographic data could not be combined across surveys. Therefore, the results presented below only contain responses from the phase 2 survey conducted in 2023.

Figure 1. Age of Survey Respondents

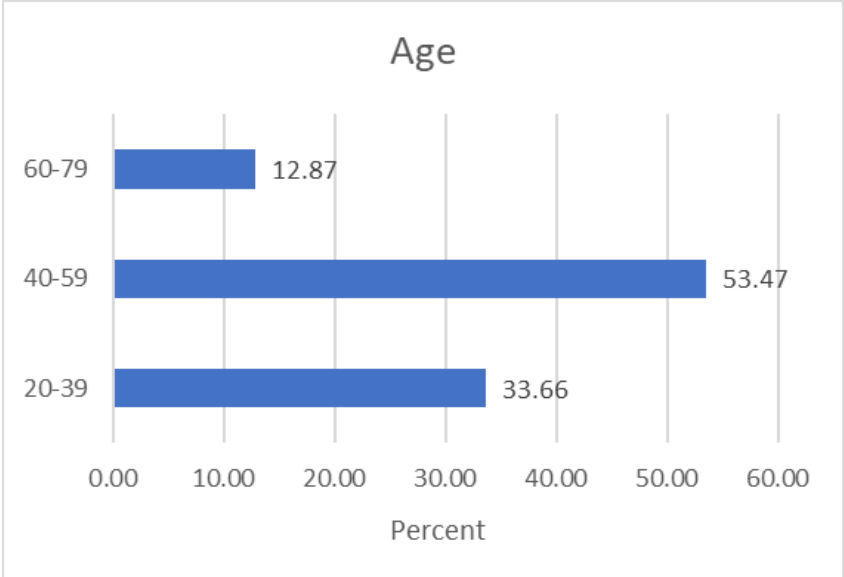


Figure 2. Gender of Survey Respondents

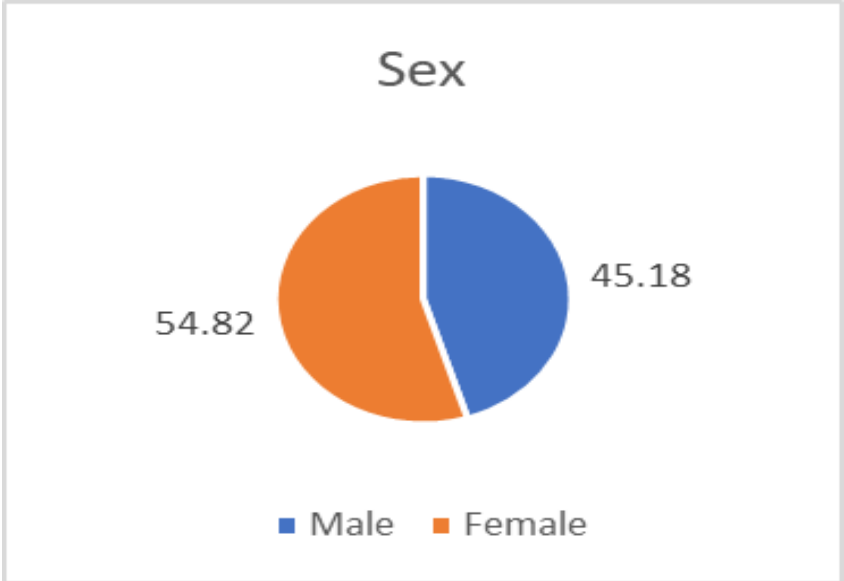


Figure 3. Ethnicity of Survey Respondents

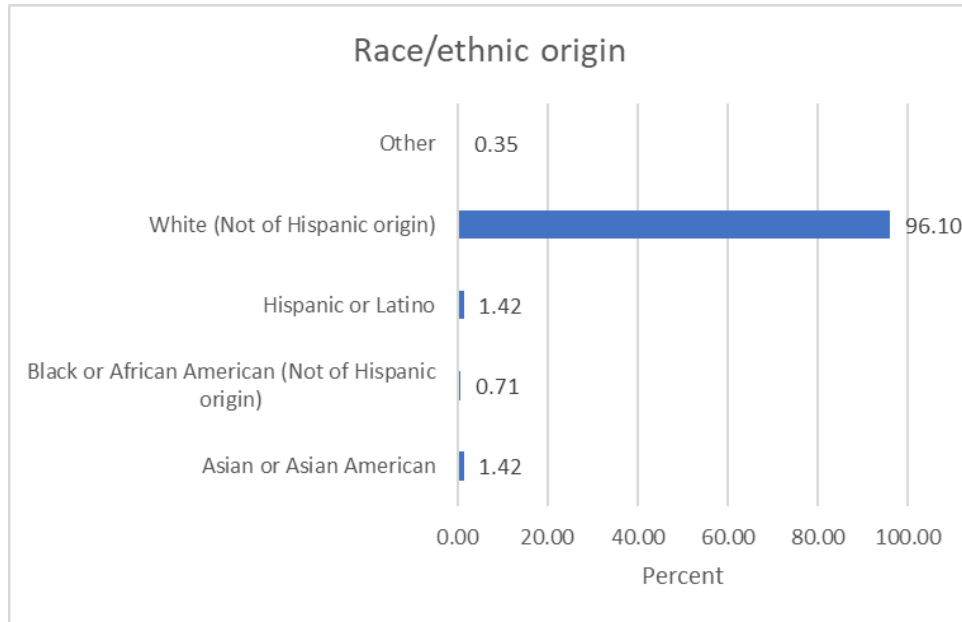


Figure 4. Geographic Location of Survey Respondents

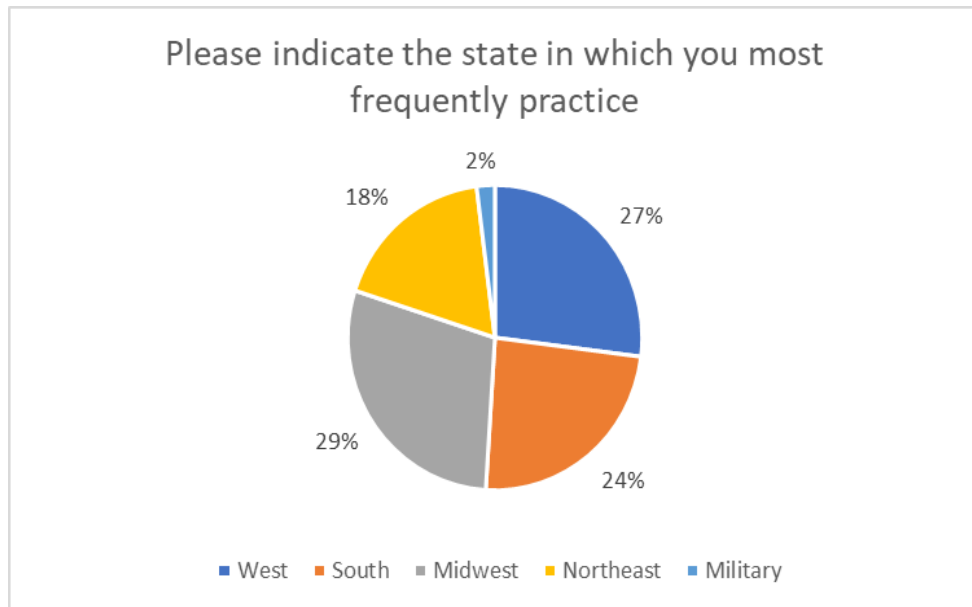


Figure 5. Entry Level Education of Survey Respondents

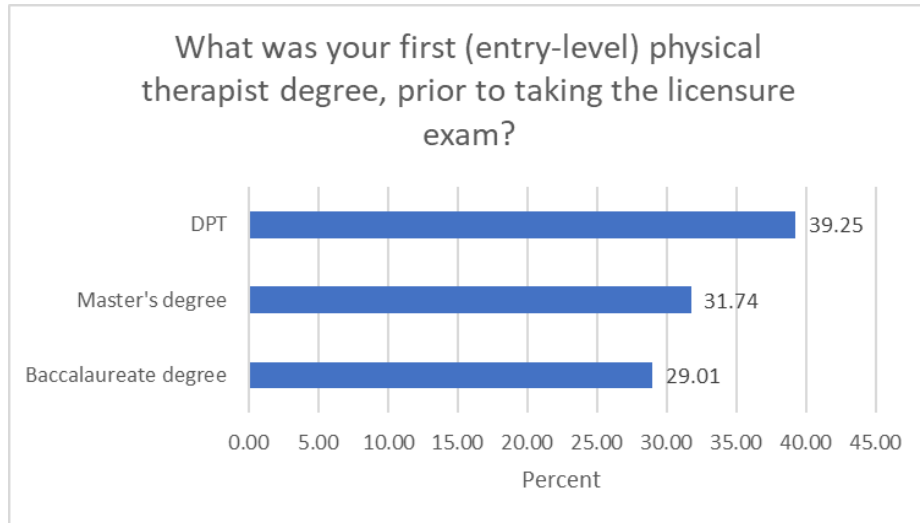


Figure 6. Highest Earned Academic Degree of Survey Respondents

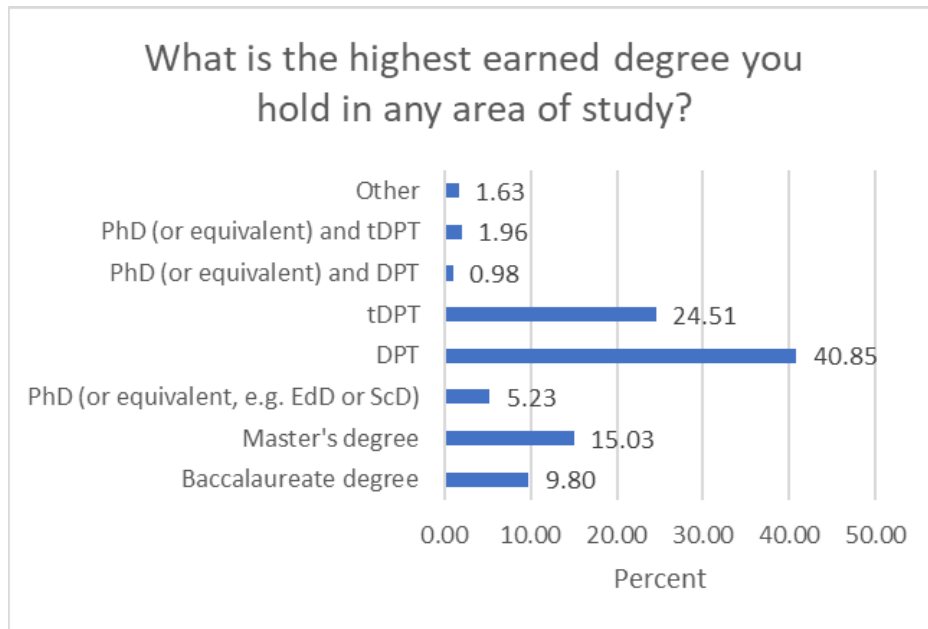


Figure 7. Years Practicing as a Physical Therapist of Survey Respondents

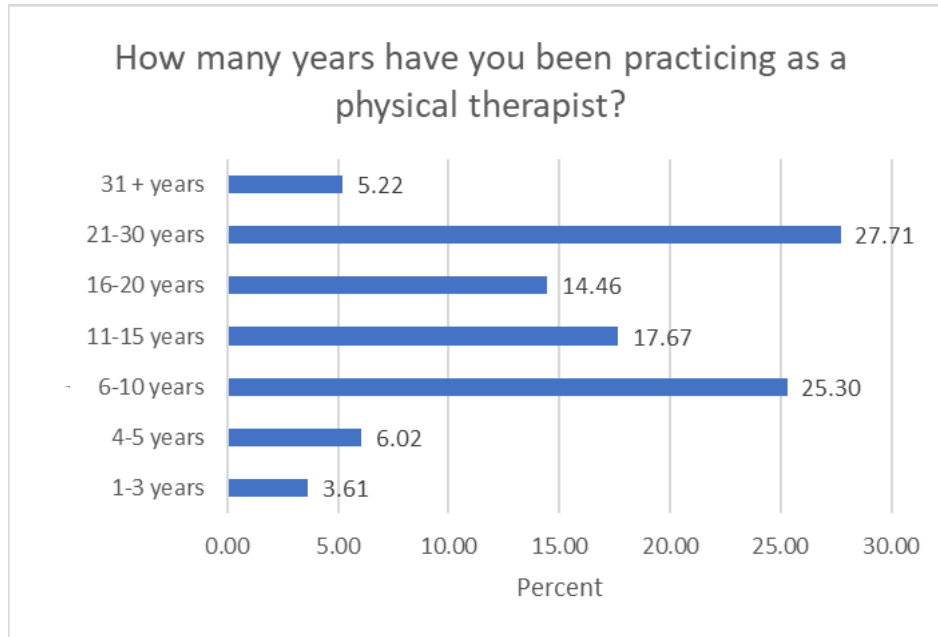


Figure 8. Years Practicing in Primary Care Physical Therapy of Survey Respondents

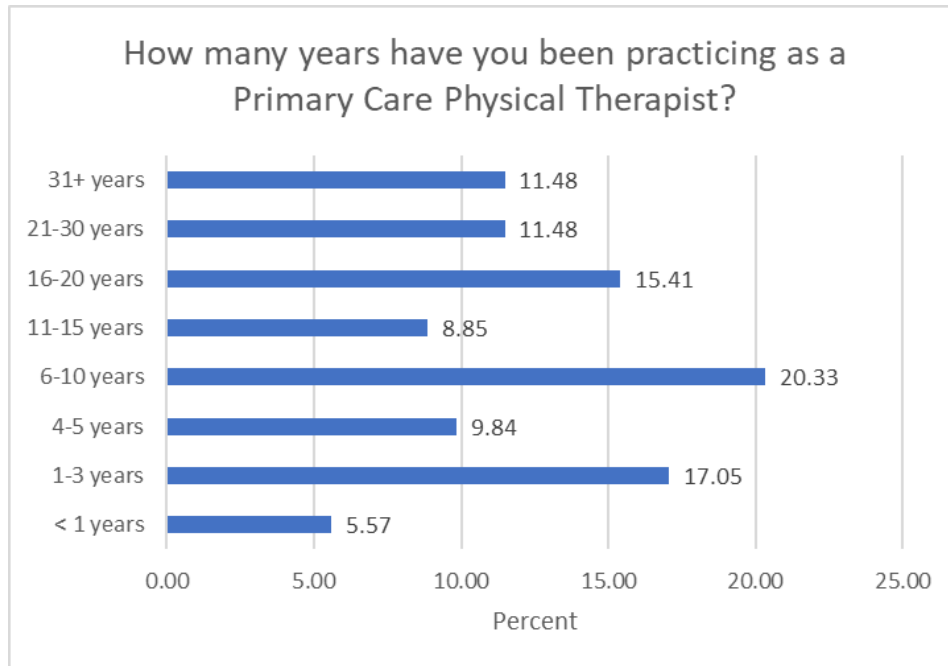


Figure 9. Years Served in Uniform Services or Federal Health Care of Survey Respondents

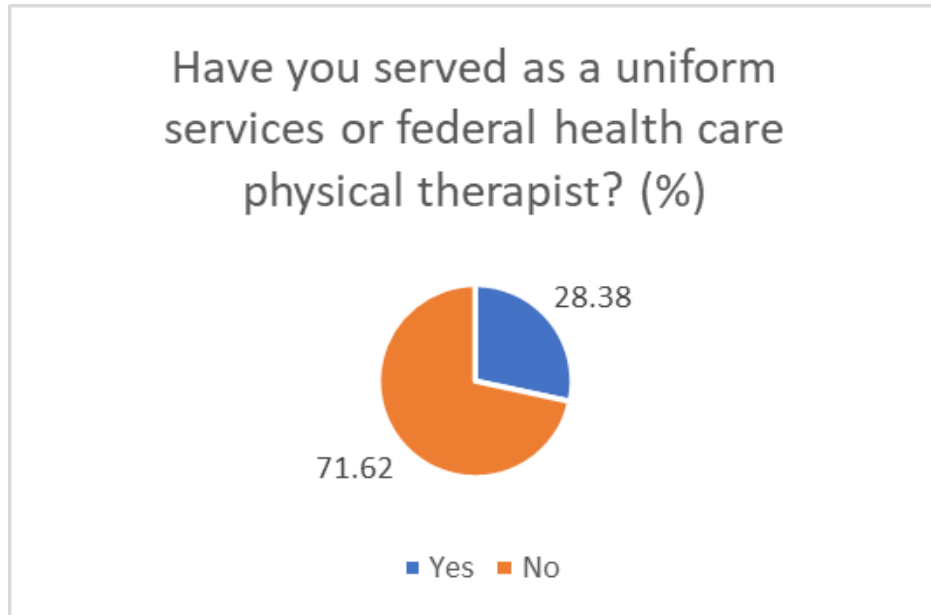


Figure 10. ABPTS Board Certified Specialist Status of Survey Respondents

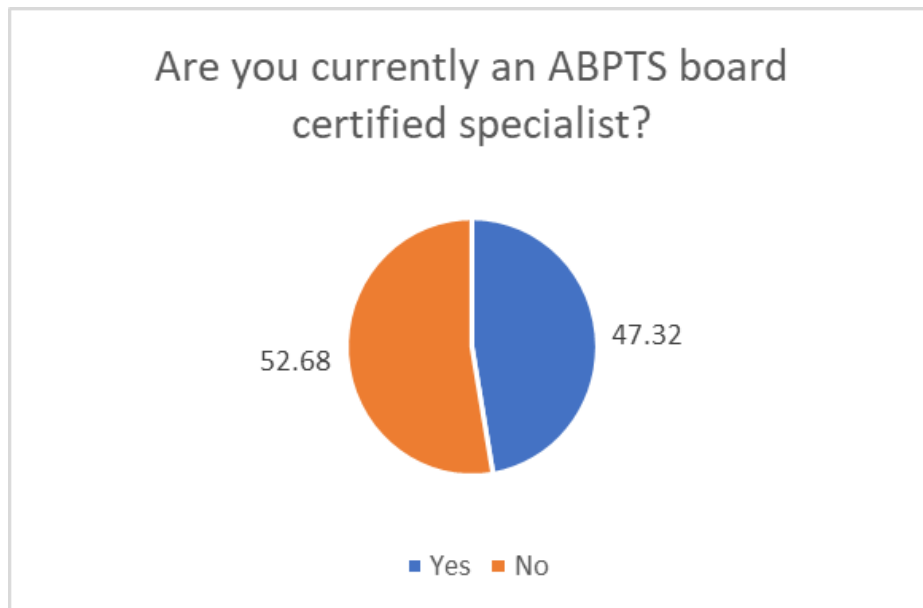


Figure 11. ABPTS Board Certification Specialty Area of Survey Respondents

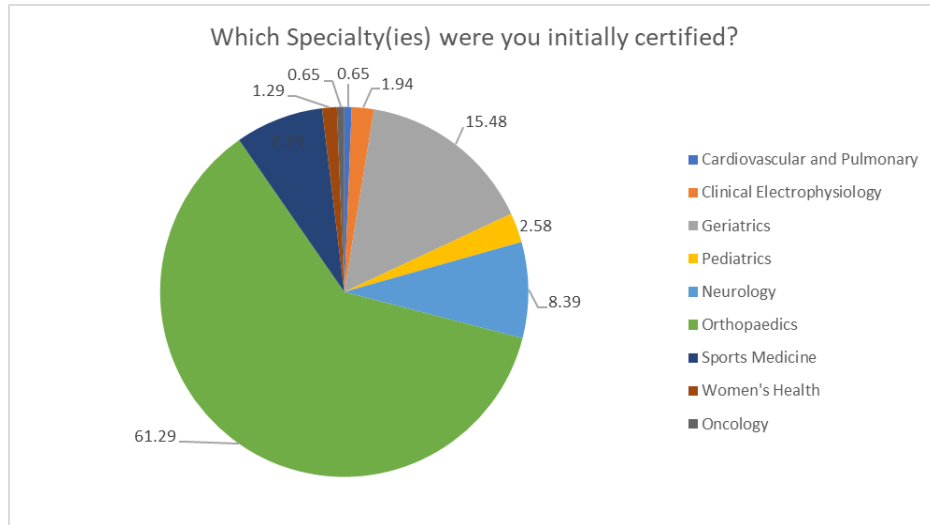


Figure 12. Education and Training to Develop Primary Care Physical Therapy Competencies and Skills of Survey Respondents

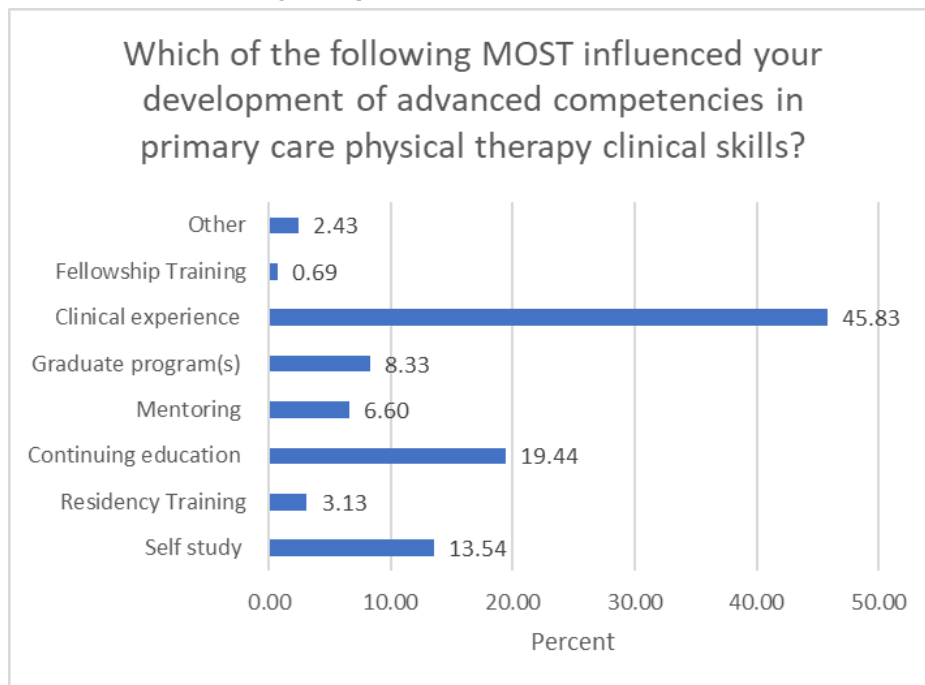


Figure 13. Employment Status of Survey Respondents

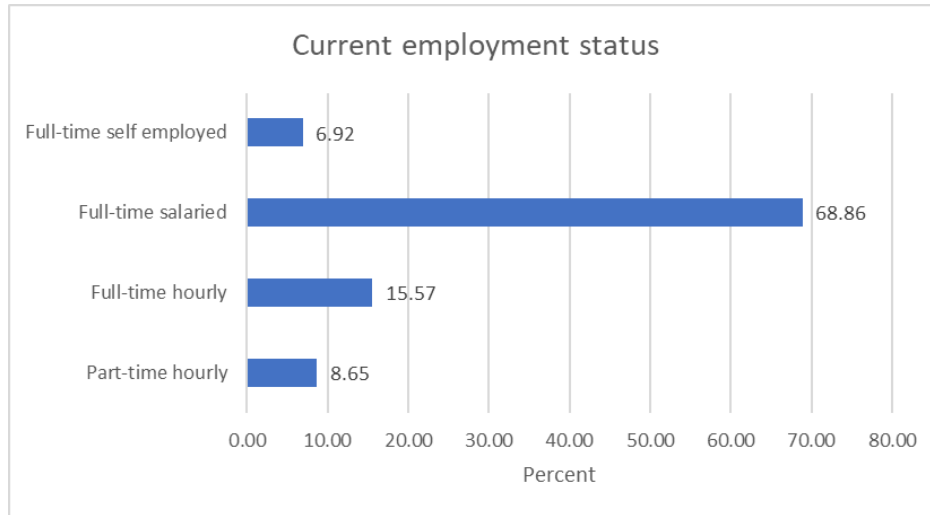


Figure 14: Professional Responsibilities of Survey Respondents

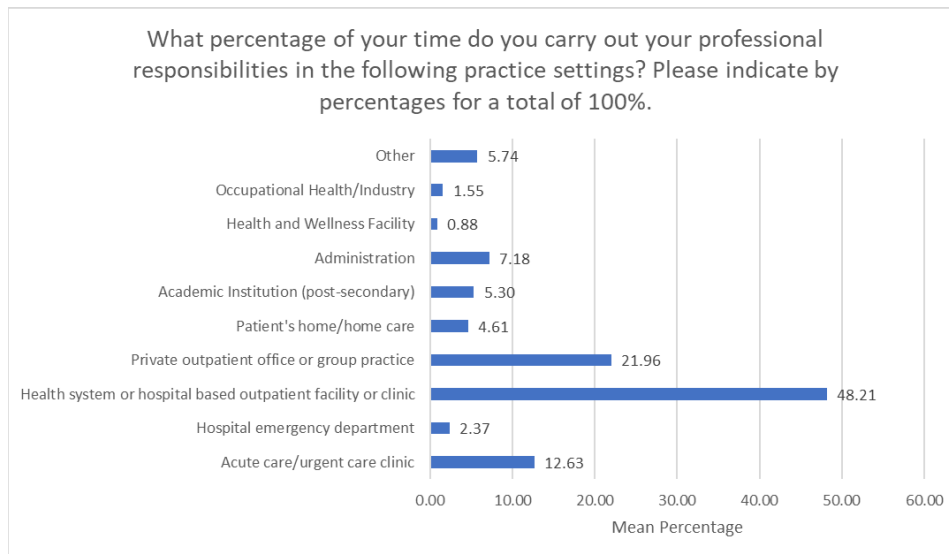


Figure 15. Demographic Practice Settings of Survey Respondents

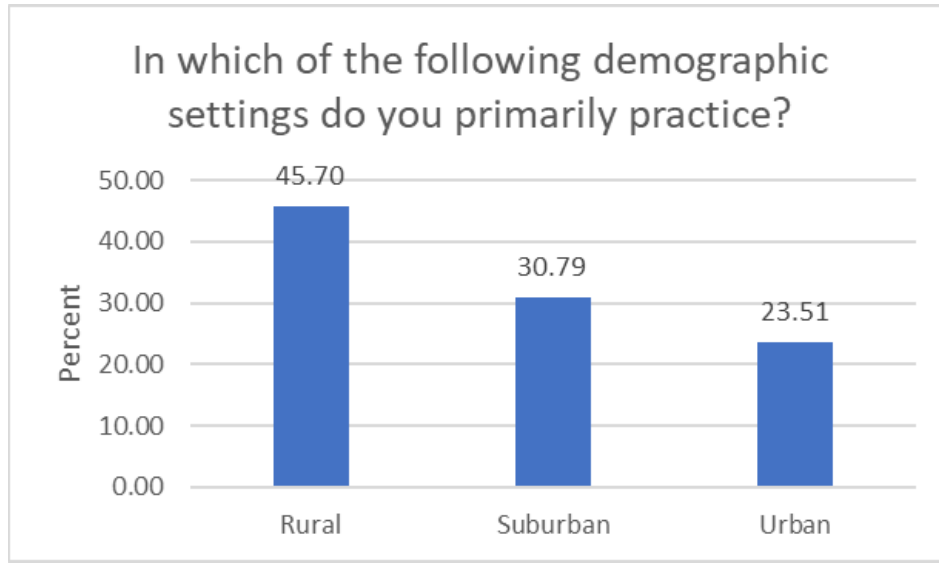


Figure 16. Facility Practice Settings of Survey Respondents

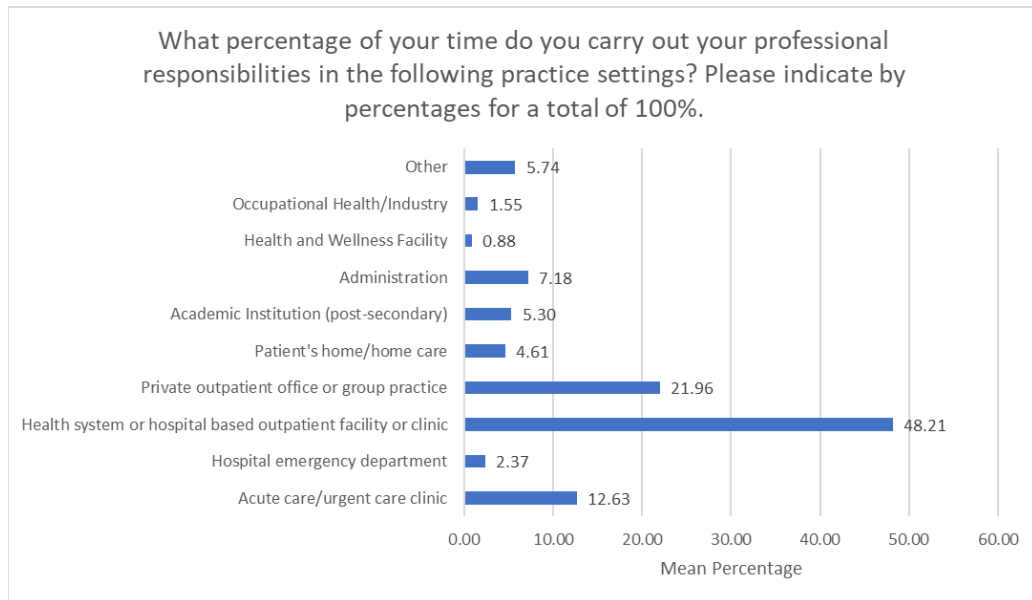


Figure 17. Age of Patients Served in Primary Care Physical Therapy of Survey Respondents

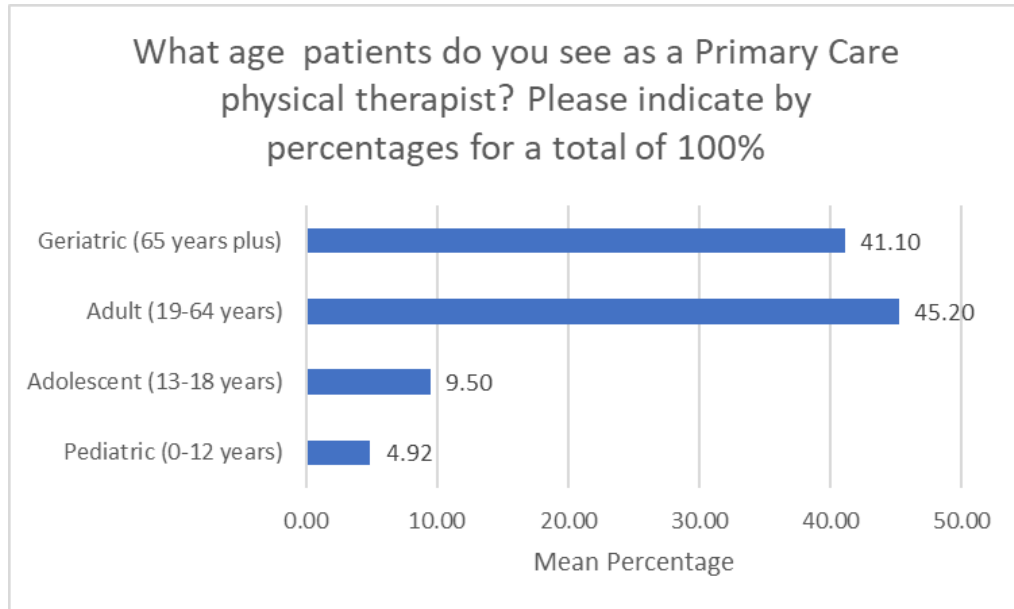
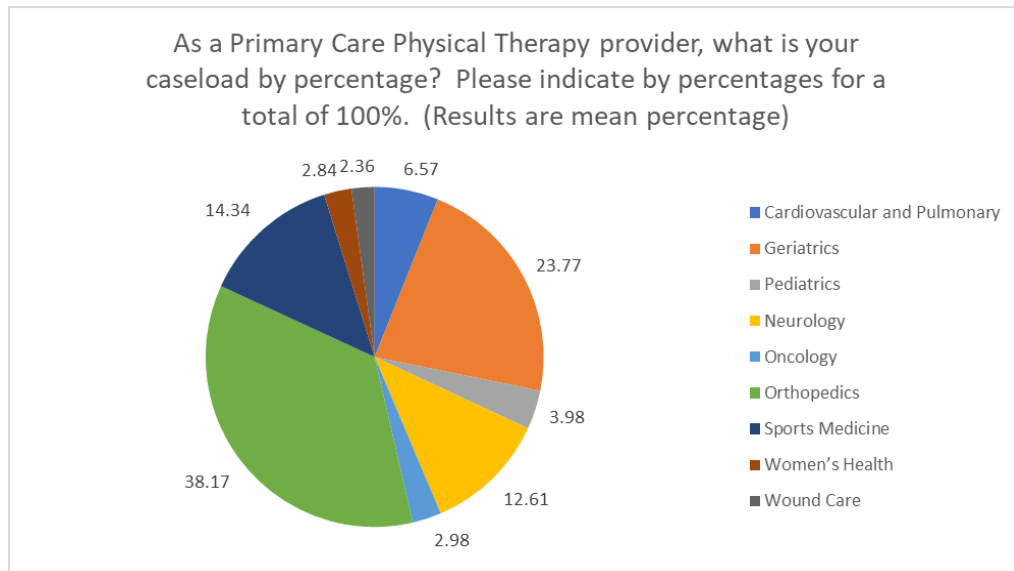


Figure 18. Caseload Distribution of Survey Respondents



C. Pilot Practice Analysis Survey Instrument

Phase 1 Pilot Survey

HumRRO staff were not involved in development or analysis of the phase 1 pilot survey (see Appendix A). Therefore, this section is limited to discussing only broad results of the phase 1 pilot survey as context for subsequent decisions regarding the content and structure of the full surveys. The purpose of the phase 1 pilot survey was to ensure clarity of the survey questions and identify any new competencies that should be incorporated into the final survey. Although it

would have shortened the survey and time commitment for respondents, since this was a new specialty and new DSP, the SME group did not feel it would be appropriate to divide the survey by sections and have respondents only complete some of the sections. APTA research staff (Sarah Miller) uploaded the survey to the APTA survey tool and pilot testing was completed in the spring of 2018 with a small convenience sample of subject matter experts identified by the SME group (N =25) as primary care specialists. A Phase 2 pilot survey was not recommended by the board, revisions were based on feedback from ABPTS/ABPTRFE Joint Review Board on areas lacking depth; all changes were vetted through ABPTS/ABPTRFE before administering the final survey.

D. Responses to Pilot Survey

Phase 1 Pilot Survey

Phase 1 pilot survey results (14 responses for a 56% response rate) and feedback in the form of written comments on the pilot survey resulted in only minimal editorial changes to the final survey. The pilot survey required an average of 90 (45-180 range) minutes to complete, as would be expected for a full survey. Again, the SME group initially chose to administer the final survey as the entire survey rather than splitting the survey. Their rationale was that respondents should see the entire proposed DSP.

E. Changes Made to the Pilot Survey Instrument

Phase 1 Pilot Survey

Only three pilot respondents were practicing in a rural setting. The SME group felt that this was likely due to the makeup of the convenience sample; however, because of this finding, the sampling plan for the final survey was changed to focus random sampling, in part, on APTA members in rural settings with 5 years of practice experience.

Especially since the pilot survey sample members had agreed ahead of time to complete the survey, the SME group was concerned with the low response numbers. Unlike other new ABPTS specialties, the Primary Care survey was not backed by an existing APTA Primary Care section from which to draw support. This situation made identifying and recruiting prospective Primary Care Specialists to complete the survey much more challenging. As such, the SME group was less concerned with response rate and more focused on completed surveys.

The pilot survey asked a question as to the naming of this new specialty. Potential choices other than Primary Care Physical Therapy included Advanced General Practitioner, Family Practice, and Primary Health Care PT. Primary Care Physical Therapy was the preferred name.

F. Final Practice Analysis Survey Instrument

Phase 1 Final Survey

Appendix D contains the final phase 1 version of the survey instrument including the cover letter and instructions to the respondents.

Phase 2 Final Survey

The phase 2 survey consists of two separate instruments. For those who that had not completed the phase 1 survey, we administered the “full” survey contained the full scope of the

practice analysis survey (see Appendix E). For those who had completed the phase 1 survey, we administered a shorter “supplemental” survey that contained only the additions made

G. Rationale for Choice of Measurement Scales

The phase 1 and 2 surveys used the same measurement scales. The survey sections and scales were per ABPTS format. The actual survey items were developed and refined by consensus of the SME group. Contributing documents included the Guide to Physical Therapist Practice and its patient/client management mode. Further design and administration of the survey was per ABPTS Guidelines.

The first three questions in the survey determined if the potential respondent was a primary care PT practicing at the self-defined level of a specialist. Each question required a “YES” or “NO” response. The questions were as follows:

- Does the initial description of this new specialty describe your own clinical practice?
- Based on the initial description of this new specialty, I consider myself to be practicing Primary Care Physical Therapy at the level of a Specialist.
- I am willing to participate in this survey.

To proceed with the actual survey, respondents had to answer YES to all three questions. A NO answer to any of these questions excluded the respondent from completing the rest of the survey. The survey contained five sections. Section 1 addressed Knowledge Areas expected of the primary care specialist. Items were rated on three scales: Frequency; Importance; and Level of Judgment. Section 2 dealt with professional roles and responsibilities, and Section 3 focused on practice expectations in patient/client management. Both sections 2 and 3 were rated on the same scales of frequency and importance, and an additional four-point Level of Mastery scale. Section 4 asked about Examination Content for the proposed specialty and Section 5 contained demographic questions which mirrored other practice analysis surveys. Table 2 provides detail on the scales.

Table 2. Survey Measurement Scales

Scale	Definition/Criteria
Frequency: How frequently does the Primary Care Physical Therapist use this knowledge area?	1 - Never 2 - Less than once a month 3 - Monthly 4 - Weekly 5 - Daily
Importance: Regardless of the frequency of occurrence or prevalence, how important is this knowledge area to practice as a Primary Care Physical Therapist?	1 – Not important 2 – Of little importance 3 – Moderately important 4 – Very important
Level of Judgment: Which of the following statements best describes the level of judgment Primary Care Physical Therapist exercise when they use information from this knowledge area?	0 - Do not use in their work 1 - Recall 2 - Application 3 - Analysis

Scale	Definition/Criteria
Level of Mastery: Level of Mastery refers to the level of skill at which a physical therapist performs during the management of patients/clients with primary care diagnoses and impairments. What skill level would a Primary Care Physical Therapists demonstrate while performing this activity?	0 – Advanced beginner skill level 1 – Competent skill level 2 – Proficient skill level 3 – Expert skill level

H. Copy of Raw Data

Appendix G contains the final raw data set used to conduct the analyses described in this report.

I. Data Analysis Procedures

Given that many questions in the survey were the same for both 2018 and 2023, the data were ultimately into a single data set to include responses from the phase 1 surveys and the full and supplemental phase 2 surveys. This increased the sample size and confidence in the results. HumRRO analyzed the survey data according to decision rules in the *Petitioner's Guide*. HumRRO staff computed means, standard deviations, and frequency distributions for all competencies and then categorized the results using the criteria shown in Table 3. This categorization method was useful for facilitating review of the results. For example, competencies in the “high frequency, high importance” category were very likely to be critical while competencies in the “low frequency, low importance” category were very unlikely to be critical. Competencies in the other two categories (i.e., “low frequency, high importance” and “high frequency, low importance”) were expected to require more deliberation. Regardless of category, the phase 2 workgroup reviewed and discussed the results for each competency.

Table 3. Criteria for Categorizing Survey Results

Category	Definition/Criteria
High Frequency High Importance	High frequency (≥ 3.0), high importance (≥ 2.5) tasks. Very <u>likely</u> to be critical.
Low Frequency High Importance	Low frequency (< 3.0), high importance (≥ 2.5) tasks. May be critical.
High Frequency Low Importance	High frequency (≥ 3.0), low importance (< 2.5) tasks. Less likely to be critical.
Low Frequency Low Importance	Low frequency (< 3.0), low importance (< 2.5) tasks. Very <u>unlikely</u> to be critical.

The mean ratings and standard deviations for all respondents were ranked from highest to lowest regarding frequency, importance, and level of judgment or mastery. For Level of Mastery, analysts recoded the responses to the same numerical scale as Level of Judgment (i.e., 0 to 3) to facilitate comparison across ratings. Appendix H contains summary descriptive statistics for each competency on each applicable rating scale.

J. How the Results of the Data Analysis Were Used

In October 2023, the phase 2 workgroup reviewed the results of the full analysis, which included data from all surveys in phases 1 and 2, for each competency. The workgroup considered the data analysis results and use the following decision rules:

- Section 1, at least 75% of respondents should rate the item on Importance at a 2 or 3 (moderately or very important) and on Level of Judgment at a 2 or 3 (application or analysis)
- Section 2 (Professional Practice Expectations: Professional Roles, Responsibilities and Values) and Section 3 (Practice Expectations, Patient/Client Management), at least 75% of the respondents should rate the item on Importance at a 2 or 3 (moderately or very important), on Level of Mastery at a 2 or 3 (proficient or expert skill level), and on Frequency at 3 or 4 level (daily or weekly).

Based on these decision rules, the phase 2 workgroup selected 226 competencies for inclusion in the DSP.

K. Blueprint Development

The phase 2 workgroup used the results of the practice analysis to create the test blueprint. The examination blueprint is based on an exam containing 200 questions. The weights of each exam section are proportional to the criticality of each section in the practice analysis. Table 4 summarizes the major components of the DSP and the target examination percentages for each content domain based on the practice analysis survey results.

Table 4. Test Blueprint

Exam Content Domain	% of Exam
I. Knowledge Areas	24
A. Foundational Sciences	6
B. Behavior Sciences	6
C. Clinical Sciences	6
D. Critical Inquiry, Principles, and Methods	6
II. Professional Roles, Responsibilities, and Values	34
A. Professional Behaviors, Leadership, Social Responsibility, Advocacy	5
B. Education	5
C. Communication and Consultation	6
D. Evidence-Based Practice	7
E. Clinical Reasoning	11

Exam Content Domain	% of Exam
III. Patient/Client Management	42
A. Examination/Evaluation	12
B. Diagnosis/Prognosis	9
C. Interventions	8
D. Outcomes	6
E. Referral/Consultation	7
Total	100%

L. Conclusions

The demographic information included in this report is the most current on primary care specialists. The practice analysis content model is based on the patient/client management model in the Guide to Physical Therapist Practice with emphasis on the knowledge areas and procedures that distinguish a primary care specialist from a non-specialist. The practice analysis procedures described in this report are consistent with both the *Petitioner's Guide* and professional guidelines for practice analysis.

Confidence in Survey Results

The results based on analysis of the survey data appear to be from a representative sample of primary care physical therapists. Given the representativeness of professional experience of respondents, the results are assumed to be representative of current primary care physical therapist practice. While standard deviations of responses indicated considerable variability in ratings of importance and frequency of use of content areas, the review of results conducted by a panel of practicing primary care physical therapists provided additional perspective and further clarified current practice.

Problems with any Portion of the Analysis

Although the end result of this process was consistent with the Petitioner's guide procedures and professional guidelines for practice analysis, the data collection process did require two phases to achieve a sufficient sample size. As noted above, the phase 2 work group was able to combine results across the two phases and did not identify any effects of the data collection process. The only problem encountered was that the length of time and amount of effort required to complete the data collection process exceeded a more typical practice analysis process.

Recommendations for Future Practice Analysis Surveys

In future practice analyses, it is recommended to consider splitting the survey in half from the start, so each survey contains fewer items and therefore take less time to complete. This may increase participation and potentially mitigate survey dropout. Another recommendation is to consider including prompts to complete any unanswered questions (particularly demographic questions) before leaving the survey. Adding such prompts when items are left blank may increase response rates for items, particularly near the end of the survey.

Reference

American Board of Physical Therapy Specialties (2021, May). Petitioner's Guide for Specialty Recognition. American Physical Therapy Association. Alexandria, VA.

APPENDIX J: Primary Care Physical Therapy Description of Specialty Practice

Acknowledgements

The Primary Care Physical Therapy Description of Specialty Practice was prepared by the members of phase one and phase two subject matter expert workgroups and approved by the American Board of Physical Therapy Specialties of the American Physical Therapy Association.

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The SME group thanks Eric Pelletier and ABPTS staff for their support throughout the validation process.

Throughout this document, the editors have attempted to use language consistent with the Guide to Physical Therapist Practice and universally accepted concepts and terminology, without bias to any particular philosophy or school of thought. The References cited with the case scenarios are given only to help the reader understand the specific examples and are not intended to favor any particular school of thought or philosophy. In addition, these references are not intended to be inclusive.

INTRODUCTION

History of Specialization in Physical Therapy

In 1975, the House of Delegates of the American Physical Therapy Association (APTA) approved the concept of specialization and created the Task Force on Clinical Specialization. The task force was charged with identifying and defining physical therapy specialty practice areas and with developing the structure for and function of a Board-certified process.

The document developed by the task force, “Essentials for Certification of Advanced Clinical Competence in Physical Therapy,” was adopted by the House of Delegates in 1978. At that time, the House recognized four specialty areas: cardiovascular/pulmonary, neurology, orthopedics, and pediatrics.

In 1979, the House appointed the Commission for the Certification of Advanced Clinical Competence. Specialty councils for each of the four specialty areas were appointed by the commission and charged with the development of competencies unique to the advanced clinician in their respective areas.

In 1980, the Commission became the Board of Certification of Advanced Clinical Competencies (BCACC). The House of Delegates recognized two more specialty areas that same year: sports and clinical electrophysiology. In 1985, the “Essentials for Certification of Advanced Clinical Competence in Physical Therapy” was revised by the House of Delegates and the title was changed to “Essentials for Certification of Physical Therapist Specialists.” The BCACC was renamed the American Board of Physical Therapy Specialties (ABPTS), and the first specialty examination was administered in cardiovascular/pulmonary physical therapy that same year. The specialty area of geriatrics was approved in 1989. In June of 2006, the APTA House of Delegates approved Women’s Health as the newest area of physical therapist specialty practice.

History of Specialization in Primary Care Physical Therapy

In 2015, The House of Delegates adopted the motion to ‘Explore the Roles of Physical Therapists in Primary Care Teams’. The American Physical Therapy Association was charged to investigate and identify the roles of physical therapists in primary care, those services of physical therapists that may qualify as components of primary care delivery; and the current and future opportunities for physical therapists to integrate these roles and services into practice, education, and research. To meet this charge, an APTA staff workgroup was established consisting of physical therapists with extensive experience working in primary care delivery models located in the United States, Canada, and the Caribbean region. The extensive literature review led to the creation of a perspectives paper, titled “The Roles of Physical Therapists on Primary Care Teams.” The APTA Board of Directors subsequently recommended that APTA “consider pursuit of primary care as an APBTS area of specialty practice” in the final report to the 2017 House, titled “Explore the Roles of Physical Therapists in Primary Care Teams.”

To investigate the feasibility of primary care as an area of specialty practice, a subject matter expert taskforce was formed by members of APTA’s House of Delegates (led by Hadiya Green Guerrero PT, DPT and consultant Jean Bryan Coe, PhD). The taskforce created a Description of Specialty Practice (DSP), followed by a validation process through formal practice analysis survey administration. Phase one of the petition indicating demand and need for this area of specialty practice was approved in May 2020. It was determined that a supplemental practice analysis survey addressing additional content areas, and eliciting responses from clinicians

practicing across a broader range of practice areas and settings was needed moving into phase two.

The APTA Federal Primary Care Special Interest Group was formed in June 2019, and took lead on phase two of this petition starting in the summer of 2020. During phase two, a new 11-member subject matter expert taskforce (led by Ashley Cassel, PT, DPT, OCS) was formed consisting of a hybrid of members from phase one and new members strategically selected to represent a diverse group of professionals from various practice settings, various areas of clinical practice, as well as diverse ethnic and geographic backgrounds. APTA Federal hired consultants from the Human Resources Research Organization (HumRRO), Tim McGonigle & Jackson Millard to guide the group through completion of the petition. The group worked together via email and virtual conferences to complete a supplemental practice analysis survey. Board certified clinical specialists across all areas of physical therapy specialty practice and experienced clinicians working in various practice settings who self-identified as primary care physical therapist specialists were surveyed to validate advanced level competency areas. Based on the survey data, the description of specialty practice was developed to reflect the terminology and concepts contained in the Guide to Physical Therapist Practice.

The practice analysis and petition process were co-funded by APTA and APTA Federal. The complete petition to become a recognized area of specialty was submitted in November 2023 and approved **XX, XXXX**. This Description of Specialty Practice is the result of this practice analysis project.

I. CHAPTER 1: DESCRIPTION OF BOARD-CERTIFIED SPECIALISTS

The first survey was sent out in 2018; the survey went to a total of 11,750 people. There were 1,166 responses for a response rate of 9.9%. The revised survey was sent in 2023 to 5,730. There were 116 responses with a response rate of 2%. That is a total of 1,282 responses. NOTE: Some demographic questions were changed, so the data that is presented is only from the revised survey from 2023.

Figure 1. Age

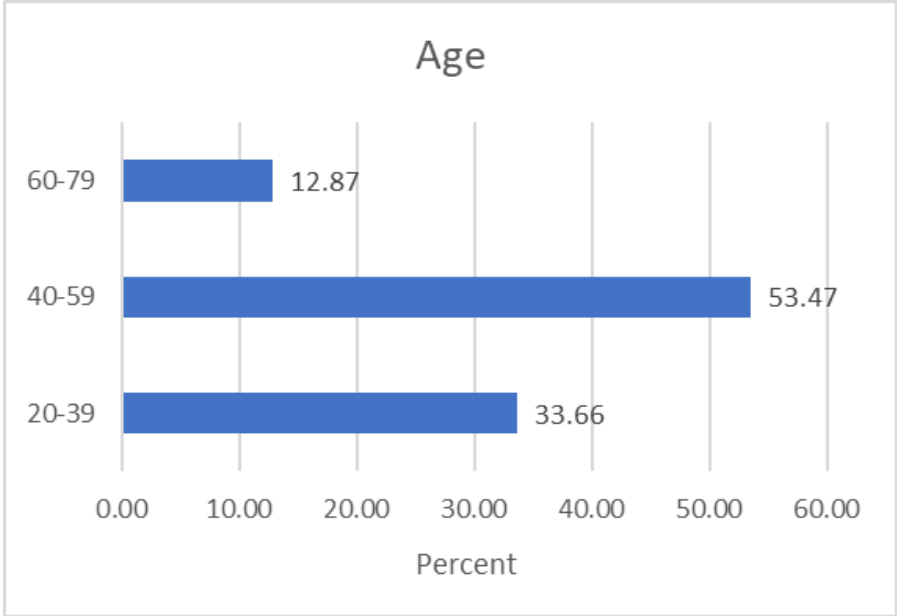


Figure 2. Gender

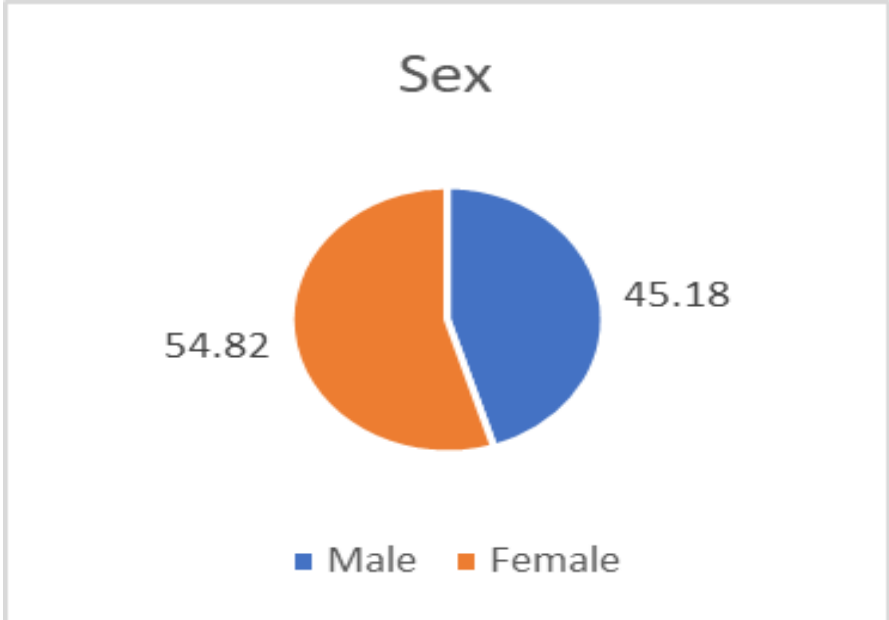


Figure 3. Ethnicity

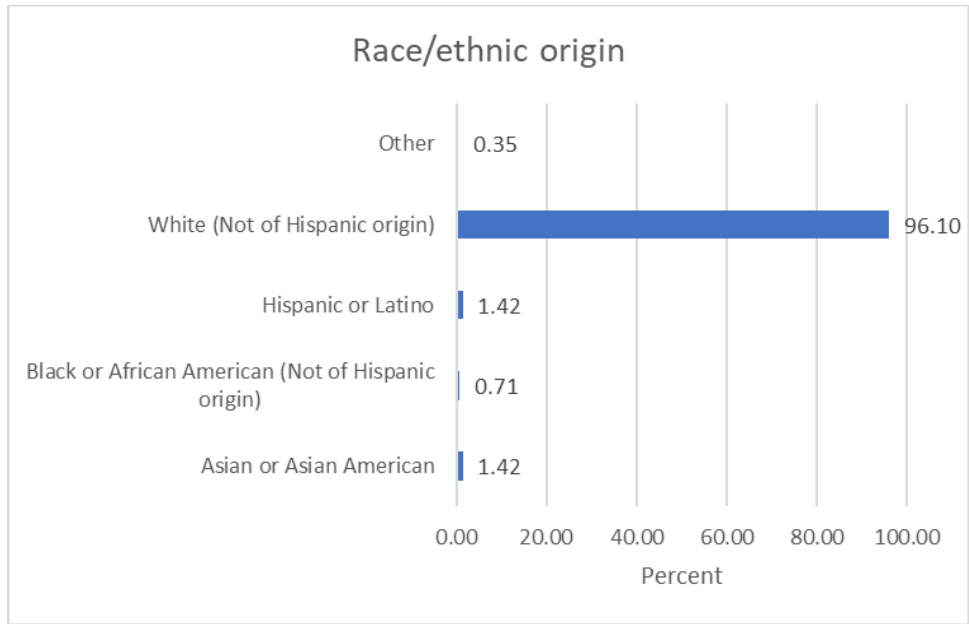


Figure 4. Geographic Location

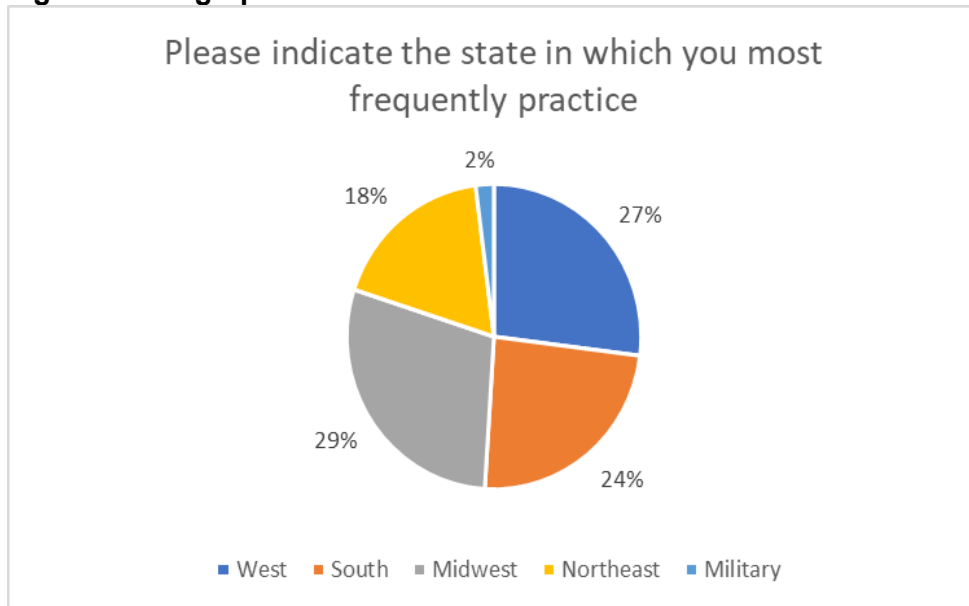


Figure 5. Entry Level Education

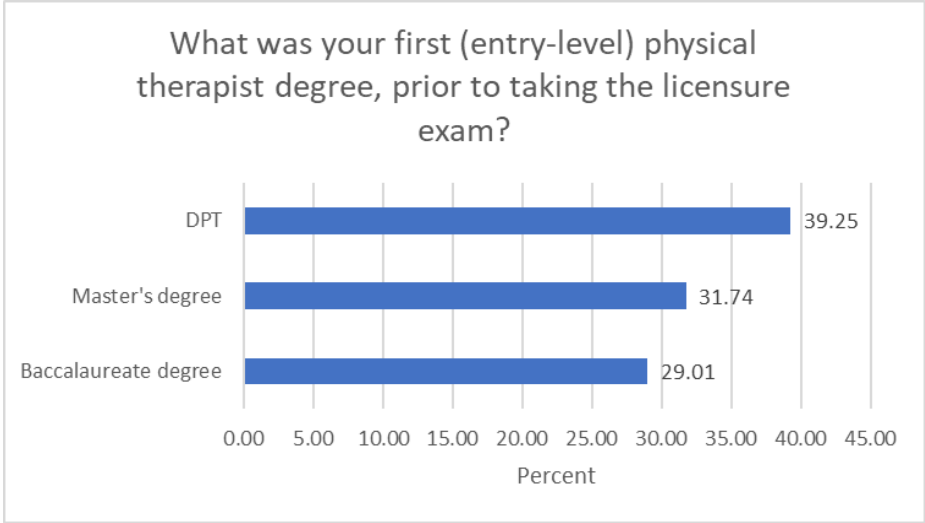


Figure 6. Highest Earned Academic Degree

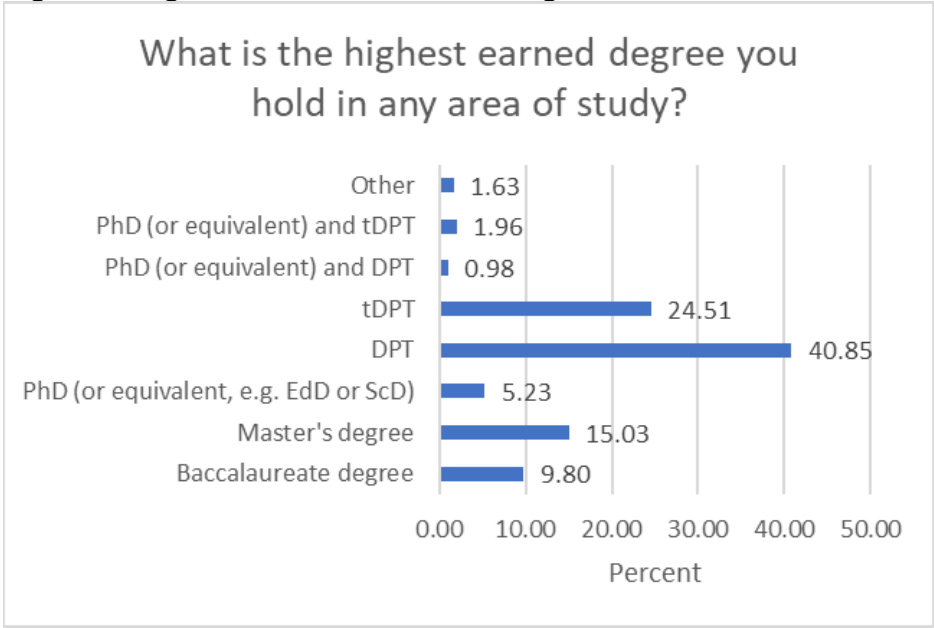


Figure 7. Years Practicing as a Physical Therapist

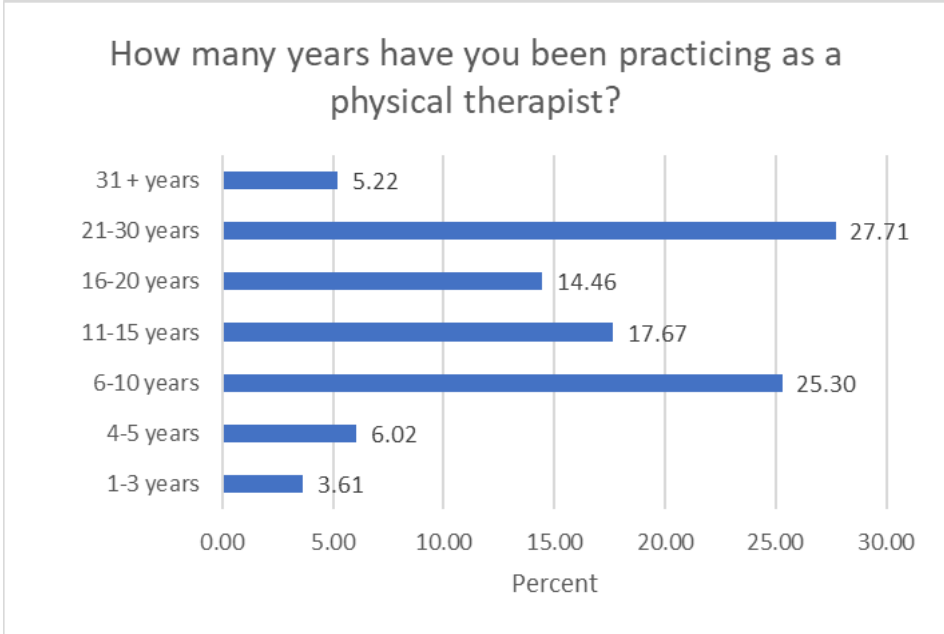


Figure 8. Years Practicing in Primary Care Physical Therapy

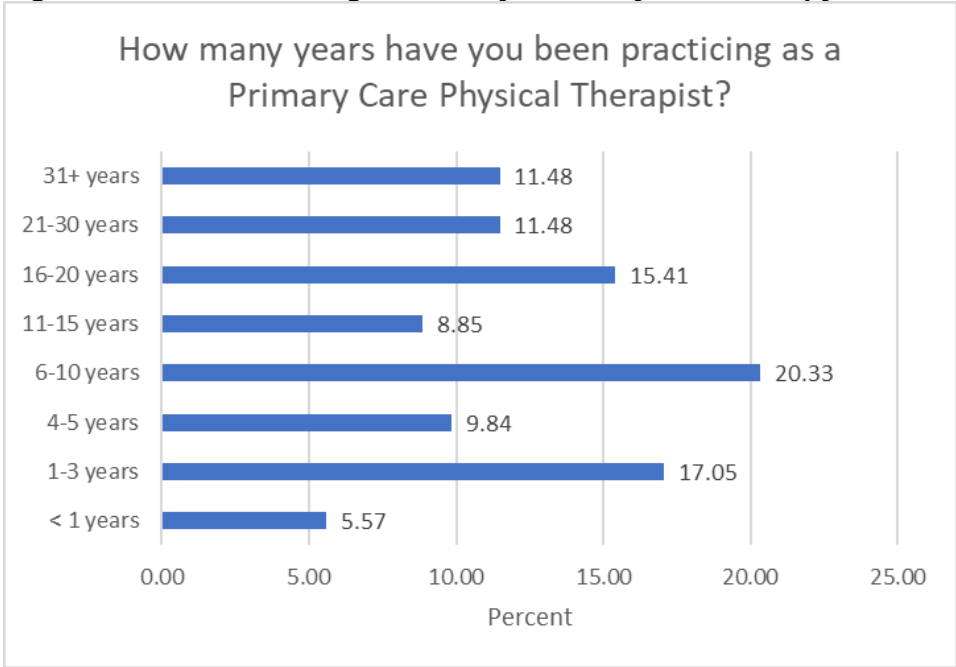


Figure 9. Years Served in Uniform Services or Federal Health Care

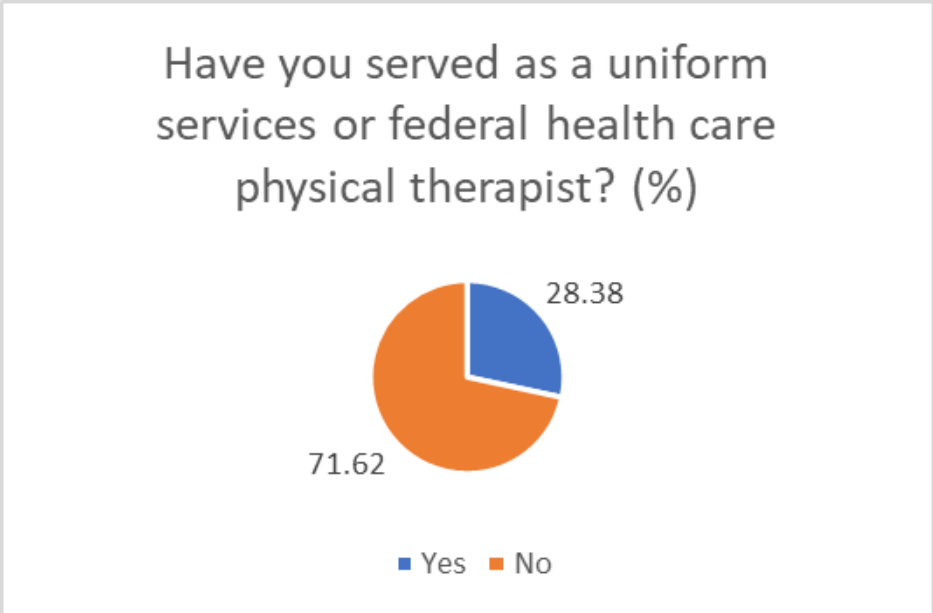


Figure 10. ABPTS Board Certified Specialists

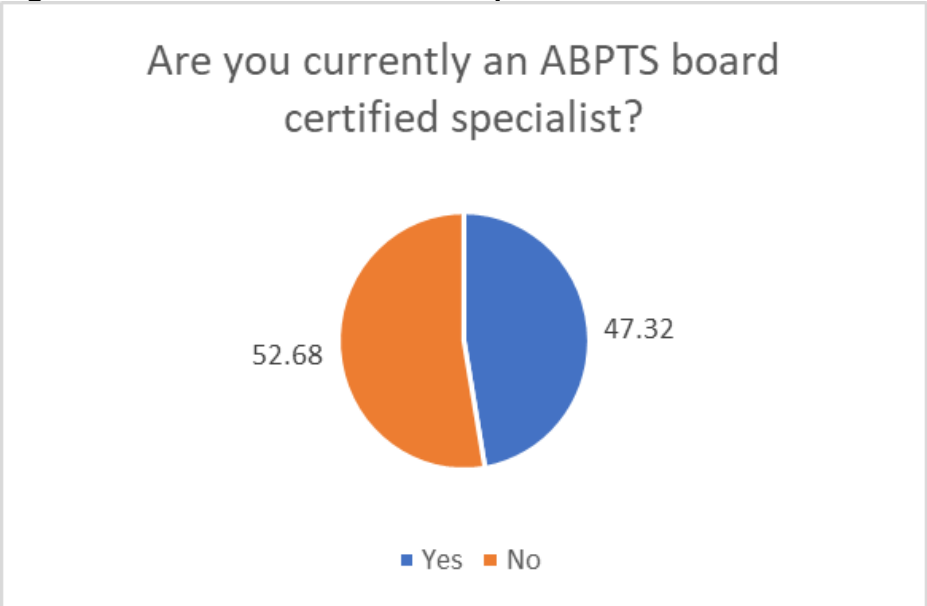


Figure 11. ABPTS Board Certification Specialty Area

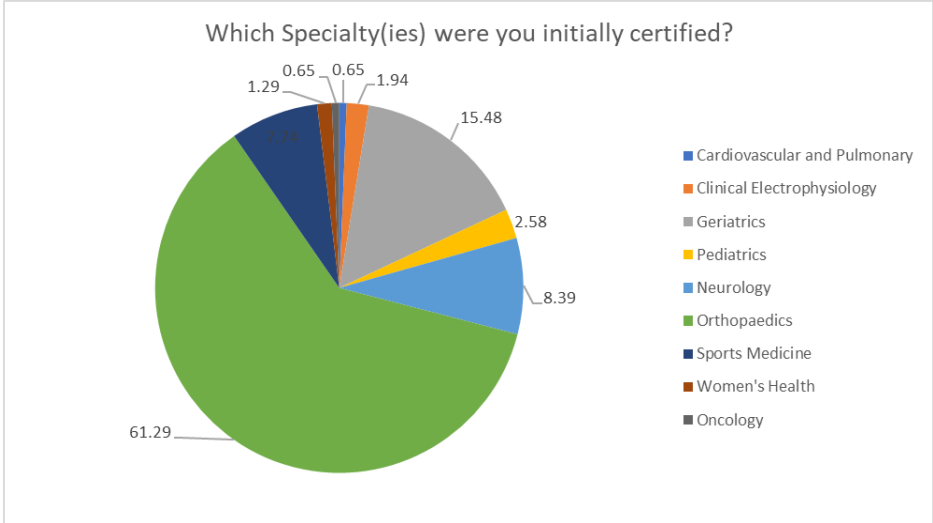


Figure 12. Education and Training to Develop Primary Care Physical Therapy Competencies and Skills

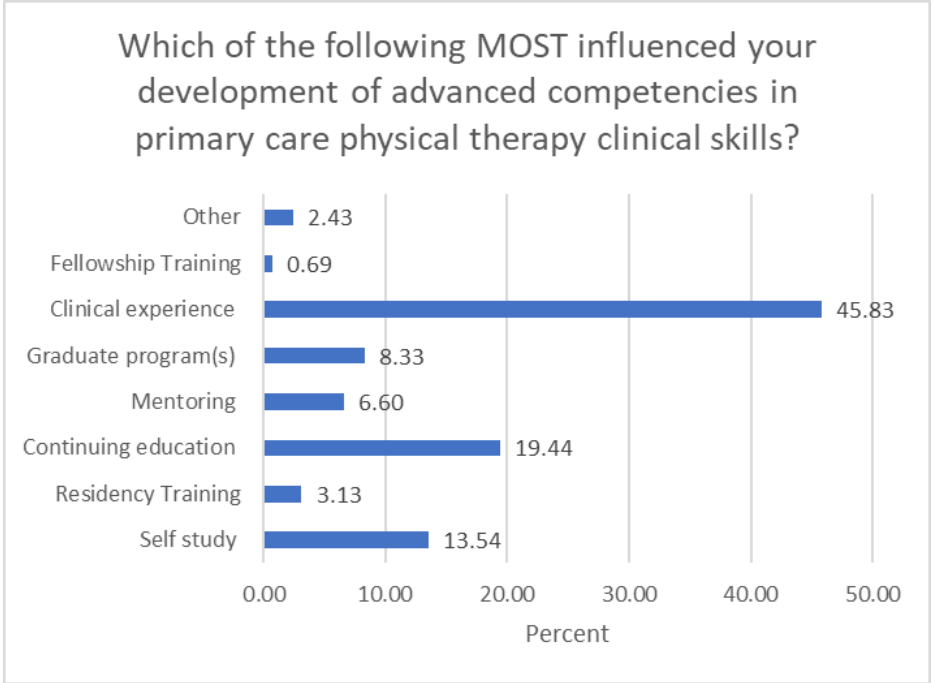


Figure 13. Employment Status

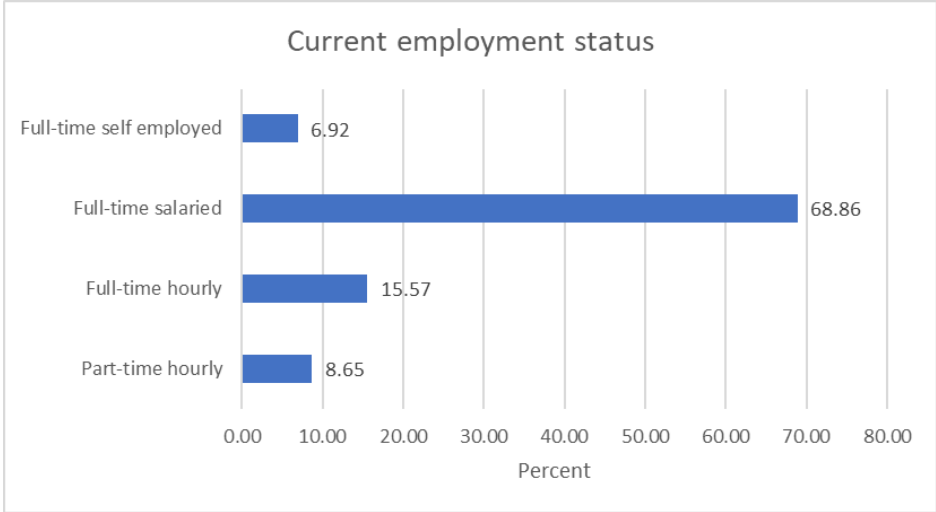


Figure 14: Professional Responsibilities

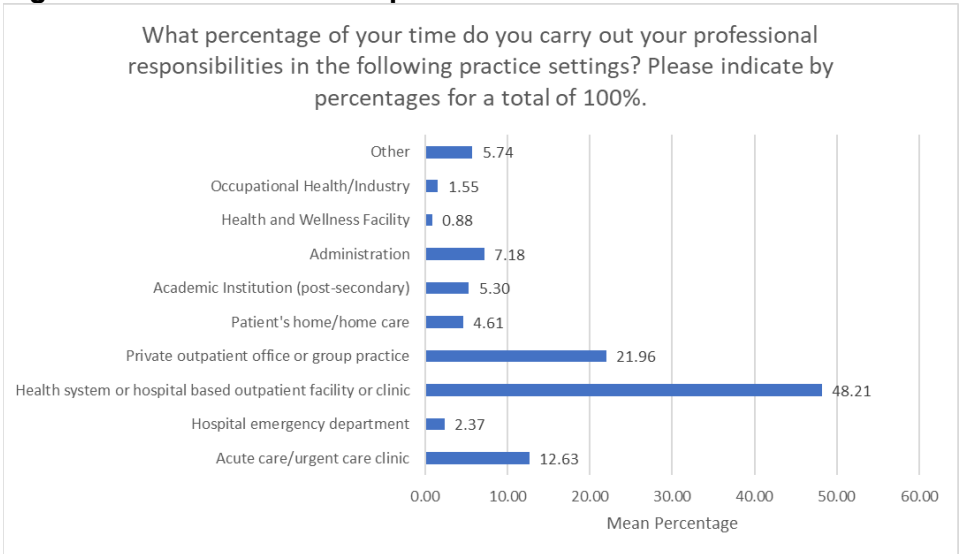


Figure 15. Demographic Practice Settings

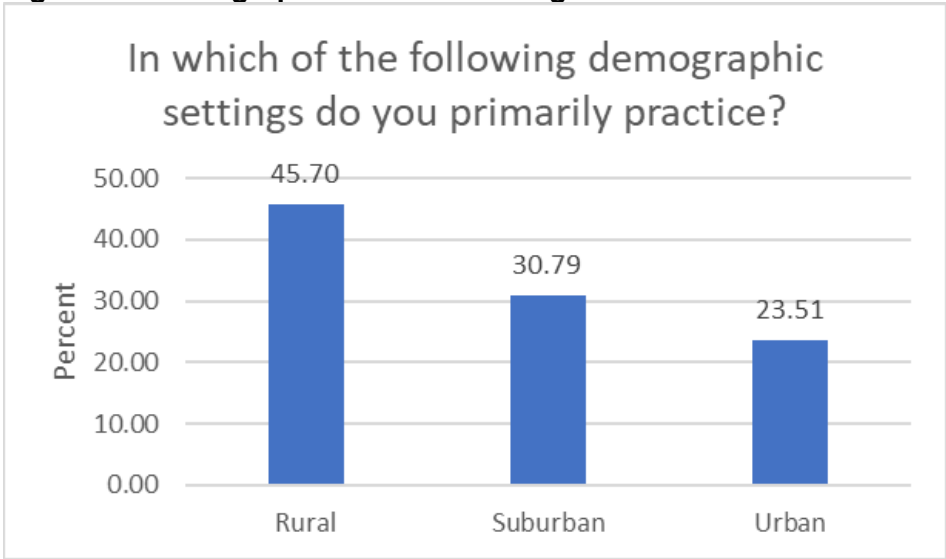


Figure 16. Facility Practice Settings

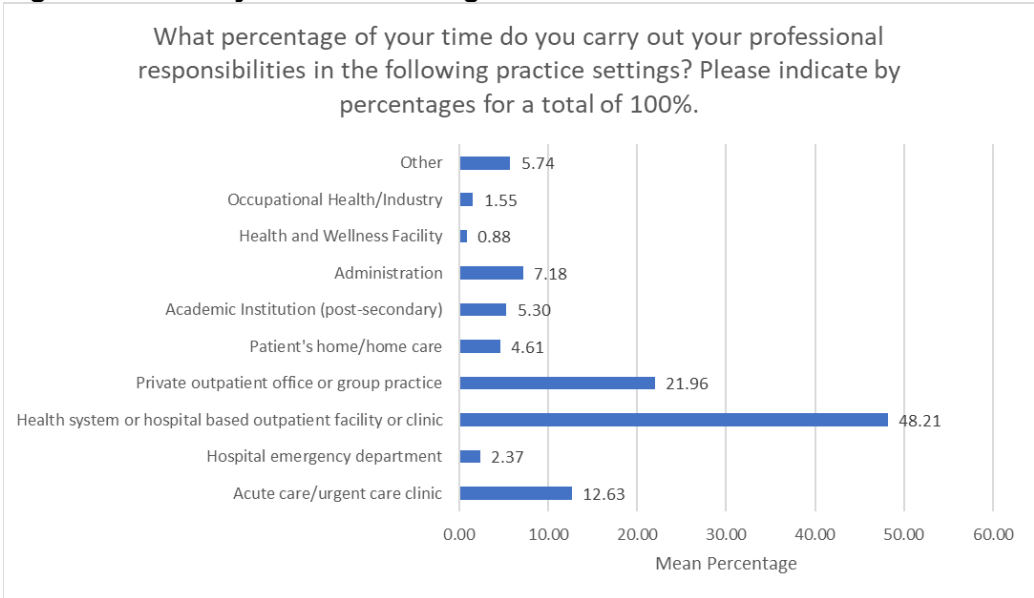


Figure 17. Age of Patients Served in Primary Care Physical Therapy

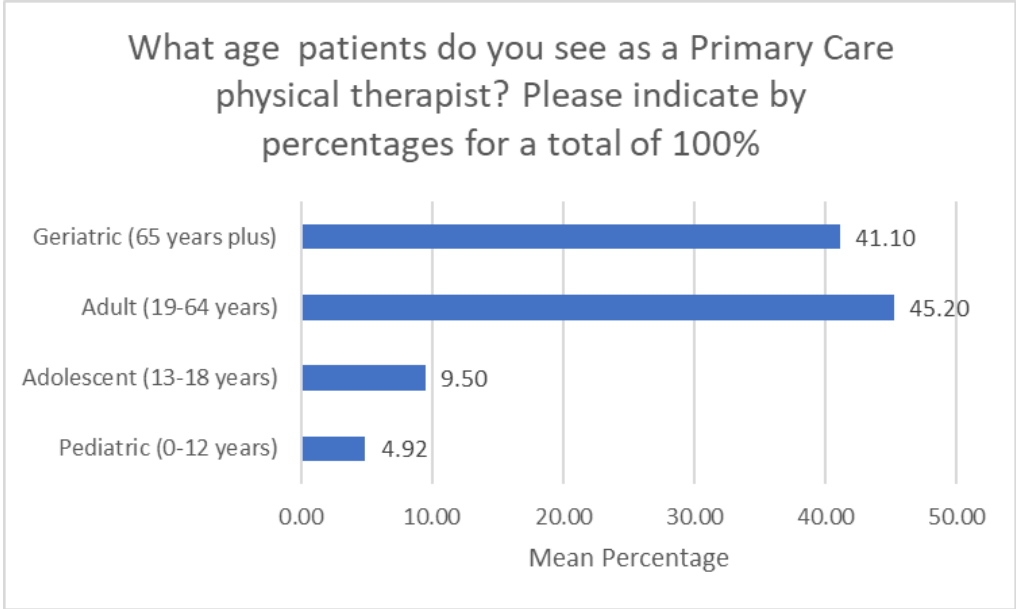
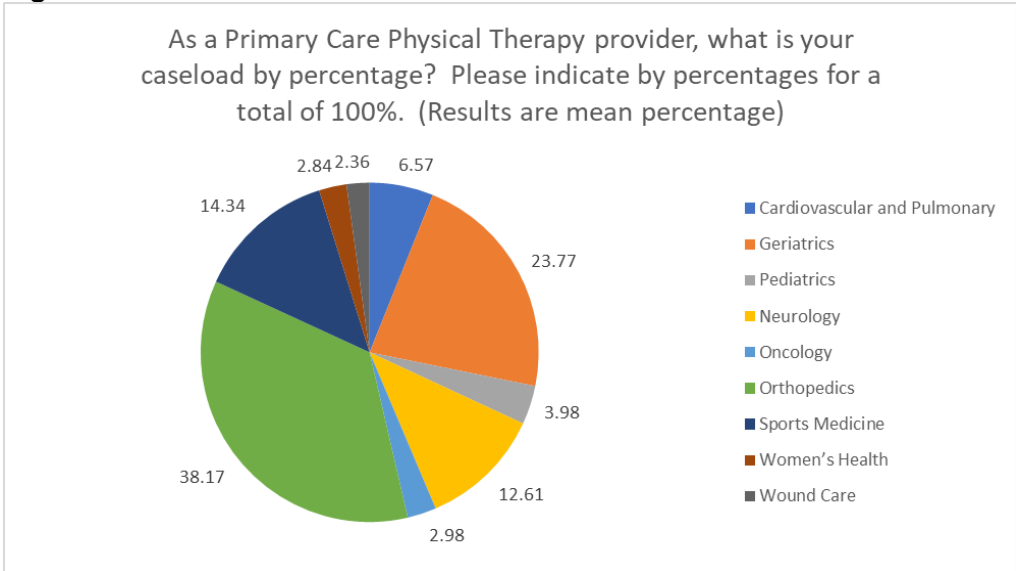


Figure 18. Caseload Distribution



II. CHAPTER 2: DESCRIPTION OF SPECIALTY PRACTICE

The Guide to Physical Therapist Practice describes the patient/client management model, which includes patient/client examination (history, systems review, tests, and measures), evaluation, diagnosis, intervention, and outcomes. Based on the development of the Guide and previous specialty practice surveys, the elements of this patient/client management model are the accepted standard for all physical therapist practice, including Specialty Practice. The DSP, therefore, does not include all the items covered in the Guide but rather highlights those elements of practice that clinical specialists utilize or perform at an advanced level compared with non-specialists. It is based on results of a practice analysis survey conducted in 2018 and supplemental practice analysis survey conducted in 2023 following a pilot version in 2018. The results from 1,282 respondents are presented in the following document.

This DSP includes competency statements about knowledge-based areas and clinical practice expectations. The clinical practice expectations consist of competency in professional roles, responsibilities and values and competency in patient/client management. The competency statements reflect the wording used on the survey instrument.

A. Knowledge Areas of Primary Care Specialists

1. Foundation Sciences

a. Human Anatomy & Physiology

1. Cardiovascular and pulmonary
2. Musculoskeletal
3. Genitourinary
4. Integumentary
5. Lymphatic
6. Immunologic
7. Neurologic
8. Gastrointestinal
9. Vestibular
10. Endocrine

b. Movement Sciences

1. Kinesiology/clinical biomechanics
2. Kinematic and kinetic analysis of functional movements, postural control, and gait
3. Ergonomics
4. Locomotion
5. Motor control and learning
6. Effects of movement dysfunctions on multiple body systems, including immediate and long-term
7. Interrelationship among social, cognitive, and movement systems

c. Exercise Physiology

1. Consideration for health conditions in exercise prescription
2. Adaptation of exercise interventions for safety and general health/wellness

- d. Human Growth & Development Across the Lifespan
 - 1. Developmental biomechanics and lifespan changes
 - 2. Physiology of aging
 - 3. Muscle performance development and changes with aging
 - 4. Mental function and changes with aging (e.g., screening for dementia)
- 2. Behavioral Sciences
 - a. Biopsychosocial Model
 - 1. Role of biopsychosocial model in relation to primary care practice (e.g., inter-professional management strategies, exam and management strategies that address psychosocial and personal factors)
 - 2. Relationship of pain to disability
 - 3. Influence of the primary care physical therapist's behavior on the patient's behavior and vice versa
 - 4. Fear avoidance behaviors and other negative coping strategies related to pain and loss of function
 - 5. Pain neuroscience education and other patient-centered behavioral pain approaches
 - 6. Appropriate referrals to other pain management healthcare providers
 - b. Communication Theory
 - 1. Communication and nonverbal language to meet the needs of patient/client
 - 2. Multidisciplinary medical team communication in the collaborative management and delivery of primary care services
 - c. Psychology/Psychiatry
 - 1. Common psychiatric symptoms, syndromes, and classifications
 - 2. Effect of psychiatric disease and treatment on cognition, learning, and function
 - 3. Recognition of and referral for psychological health conditions
 - 4. Suicide Screening and Prevention
 - 5. Psychosocial issues with aging
 - d. Occupational health
 - 1. Recognition of occupational and work-related diseases and injuries
 - 2. Support return-to-work, preserve, and restore working capacity
 - e. Health Promotion and Disease Prevention
 - 1. Behavior change, stages of change, and readiness for change
 - 2. Theories and practice of behavior change for clinical practice (e.g., Cognitive Behavior Therapy, Acceptance Commitment Therapy, Motivational Interviewing)

3. Impact of health behaviors on general health, disease risk, and prognosis for specific conditions across the lifespan
4. Principles of prevention and wellness
5. Sleep Science
6. Exercise for wellness recommendations (e.g., Health and Human Services, American College of Sports Medicine) on quantity, quality, and mode
7. Recommendations for nutritional needs across the lifespan (e.g., understanding professional organizations and government agencies guidelines and common dietary plans)
8. Nutrition impact on chronic disease
- f. Sociology/cultural competence
 1. Cultural competence and sensitivity
- g. Teaching and learning theory (e.g., learning styles, teaching methods, assessment of learning)
3. Clinical Sciences
 - a. Pathology
 1. Immunology
 2. Pathokinesiology
 3. Signs and symptoms of disease/injury
 4. Disease/Injury process and progression
 5. Tissue inflammation, healing, response to exercise, and repair
 6. Complications and considerations specific to bariatric medicine and obesity
 - b. Pain Science
 1. Central nervous system pain physiology
 2. Peripheral nociceptive pain physiology
 3. Peripheral neuropathic pain physiology
 4. Output mechanisms and expressions (e.g., Immune, endocrine, sympathetic, behavioral)
 5. Social and psychological impacts related to pain
 - c. Emergency/Trauma Medicine
 1. Triage of acute neurologic and musculoskeletal conditions presenting to emergency/trauma departments
 2. Early identification of yellow/red flags
 3. Falls risk and safety assessments (including assessment and provision of assistive devices/equipment)
 4. Educational subject matter expert for acute neurologic and musculoskeletal conditions
 5. Referral for further intervention (e.g., including referral to other specialty care, medical work-up, imaging, social work, further PT services as necessary)
 6. Discharge planning
 - d. Medical and Surgical Considerations
 1. Medical Screening

2. Imaging Studies
 - a. Appropriateness criteria for ordering imaging
 - b. Integrating results with clinical examination data
 - c. Applying results in referral/consultation management
3. Laboratory Science
 - a. Screening of lab values
 - b. Integrating results with clinical examination data
4. Diagnostic tests and measures (e.g., EKG, electrophysiological exams)
5. Pharmacology
 - a. Pharmacokinetics and pharmacodynamics
 - b. Pharmacological treatment of co-morbidities and common conditions
 - c. Drug interaction and polypharmacy
 - d. Evidence and education regarding supplements
6. Nonsurgical medical interventions (e.g., steroid injections, nerve ablations, medial branch blocks) and implications for Primary Care Physical Therapy
7. Surgical and invasive interventions (e.g., laparoscopic arthroscopic procedures, joint arthroplasties, cardiac and vascular procedures) and implications for Primary Care Physical Therapy
- e. Population Health & Epidemiology
 1. Epidemiology of chronic disease (e.g., implications for lifespan management, impacts on population health)
 2. Recognition of hallmark signs for chronic disease process and ability to make appropriate referral/consultations
- f. Practice Considerations
 1. Systems-Based Practice (e.g., actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value)
 2. Principles of physical therapy evaluation and treatment of patients across the lifespan with musculoskeletal, neuromuscular, cardiovascular, pulmonary, integumentary, or cognitive impairments
 3. Provision of advanced care across the lifespan for patients who self-refer or are referred to physical therapy
 4. Models of differential diagnosis and clinical reasoning such as hypothesis-oriented algorithm for clinicians (HOAC) model or the prospect theory
 5. Collaboration and coordination throughout the continuum of care
4. Critical Inquiry Principles and Methods

- a. Critical appraisal and application of research findings in Primary Care Physical Therapy

B. Professional Roles, Responsibilities and Values of Primary Care Clinical Specialists

1. Professional Behaviors reflecting the Core Values: The physical therapist practicing as a primary care clinical specialist reflects the core values of a professional, adheres to the highest ethical standards, and pursues continuous learning and development by:
 - a. Practicing ethical decision-making consistent with the APTA Code of Ethics
 - b. Demonstrating appreciation and respect for physical therapist scope of practice
 - c. Maintaining state-of-the-art knowledge and skills by participation in continuing professional development (e.g., residency education, fellowships, seminars, structured study, journal clubs, etc.)
 - d. Practicing ongoing reflection and self-evaluation to identify opportunities for development
 - e. Identifying and prioritizing areas for growth and follows through as a life-long learner through review of research and professional affiliations
 - f. Continuously assessing practice outcomes to validate physical therapy services based on quality, effectiveness, productivity, or service, and be able to identify opportunities for improvement.
 - g. Demonstrating risk management strategies, including informed consent during physical therapy examination and intervention
 - h. Devoting time and effort to effectively recognize and resolve complex problems
 - i. Effectively navigating uncertainty/ambiguity
 - j. Adhering to legally required reporting requirements (e.g., domestic violence, abuse)
 - k. Maintaining a referral base of content experts (medical as well as non-medical) within the community for patient access
 - l. Maintaining readily accessible network of interdisciplinary available resources (medical and non-medical) for consultation and referral
 - m. Maintaining a readily accessible network of available interdisciplinary resources for consultation and referral that are compliant with all regulatory, agency, and time frame requirements
 - n. Identifying and encouraging inter-professional practice opportunities
 - o. Promoting the rights of the patient to actively participate in their health care management considering the patient's wishes, goals, attitudes, beliefs, and circumstances
 - p. Remaining current with evolving trends in patient preferences, changes in health policy on international, federal, and local levels

2. Leadership, Social Responsibility & Advocacy: The physical therapist practicing as a primary care clinical specialists demonstrates social responsibility, service, and advocacy by:
 - a. Representing primary care physical therapy to other professional organizations
 - b. Maintaining knowledge of current activities of national and international organizations of physical therapy
 - c. Promoting health and quality of life for individuals across the lifespan
 - d. Advocating for patients through direct patient care interventions, education, service, research, legislation, and the development of community resources
3. Education: The physical therapist practicing as a primary care clinical specialist demonstrates ability to educate others and provide consultation by:
 - a. Mentoring physical therapists, physical therapist assistants, other health-care professionals, physical therapist residents, and students by participating in clinical education and research related to Primary Care physical therapy
 - b. Providing evidence-informed Primary Care physical therapy educational programs to a variety of audiences, including students, other health care professionals, the public, elected officials, political groups, and candidates, and third-party payers
4. Communication: The physical therapist practicing as a primary care clinical specialists demonstrates advanced communication skills by:
 - a. Employing effective communication strategies with individuals across the lifespan, including verbal, nonverbal, and assistive technologies
 - b. Effectively and efficiently communicating findings to the patient/client and health care team
 - c. Using effective communication skills to manage interpersonal relationships judiciously and empathetically
 - d. Effectively managing relationship/practice building
 - e. Empowering individuals in the management of their own health
 - f. Facilitating collaborative interprofessional communication, team management, and transitions of care for patients/clients
 - g. Addressing cultural and/or social issues that affect the plan of care
 - h. Employing communication skills necessary for effective utilization of technology in telephone and video visits (return visits and initial consults)
5. Consultation: The physical therapist practicing as a primary care clinical specialist demonstrates ability to provide consultation and contribute special knowledge or expert opinion in client-based, community, or academic settings, including:
 - a. Clients, clients' families, and other health-care professionals (e.g., in-services, support groups, and team meetings)

6. Evidence-Based Practice: The physical therapist practicing as a primary care clinical specialist demonstrates evidence-based practice and critical inquiry by:
 - a. Applying contemporary principles of evidence-based practice and knowledge translation in patient and client management while recognizing the limitations of incorporating evidence into practice.
 - b. Evaluating the efficacy and effectiveness of examination tools, interventions, and technologies based on available evidence.
 - c. Integrating and applying evidence informed approaches in the presentation of health promotion and preventive care programs
 - d. Recognizing the need for the development of further evidence in primary care practice and the role of research in advancing the body of knowledge in primary care physical therapy
 - e. Recognizing and assessing the risks, benefits, and economics of specific interventions (e.g., including the principle that interventions with little or no evidence for additional benefit, but some increased risk, should be deferred)
 - f. Utilizing advanced knowledge and clinical skill when research questions have not been previously answered
 - g. Utilizing appropriate patient outcome measures to guide patient management, and submitting outcomes to a national registry
7. Clinical Reasoning: The physical therapist practicing as a primary care clinical specialist demonstrates ongoing high-level, effective clinical reasoning to include emphasis on:
 - a. Resource efficiency specific to the patient as well as the patient's health care system
 - b. Broad levels of hypothesis generation during early subjective examination and development of hypothesizes about contributing factors, precautions, contraindications, and management
 - c. Advanced skills in pattern recognition which drive:
 1. Expert prioritization of differential diagnosis and systematic assessment to rule in/rule out hypotheses
 2. Efficient processes to control reasoning in dealing with complex patients with multiple comorbidities
 3. Expert exam-planning based on appropriate interpretation of subjective examination, including system screening, assessment of pain, sensitivity, and irritability
 4. Flexibility and openness in the analytic process using metacognition to respond appropriately to emerging data and changing patient status.
 5. Collaborative reasoning which involves the patient in the patient-centered care process
 6. Evolving understanding of patient presentation and identifying underlying mechanisms, contributing to patient problem(s).
 7. Efficient and effective use of algorithms with the ability to avoid (or at least minimize) clinical reasoning errors

C. Patient/Client Management/Expectations of the Primary Care Physical Therapist: The physical therapist practicing as a primary care clinical specialist demonstrates advanced client/patient management across the lifespan and across the continuum of care for patients who self-refer or are referred to physical therapy.

1. Examination

The physical therapist practicing as a primary care clinical specialist effectively triages patients as first contact provider at an advanced competency level and demonstrate examination by:

a. History: is a systematic gathering of data from both the past and the present related to why the patient/client is seeking the services of the physical therapist.

1. Patient chief complaint(s) including description of symptoms (e.g., 24-hour behavior, aggravating/easing factors, body chart, onset, pain level)
2. Medical history (e.g., comorbidities, surgical history, family/genetic history, medications/supplements)
3. Prior diagnostic testing (e.g., consults, imaging, labs, neurological testing)
4. Previous intervention(s) and response
5. Prior level of function including level of physical fitness and leisure activities
6. Psychological function (e.g., memory, reasoning ability, anxiety, depression, morale, and fear avoidance beliefs)
7. Societal role(s) (e.g., worker, student, spouse, grandparent)
8. Environmental, social, and economic factors (e.g., physical environment, education, economic stability, social support)
9. Health behaviors (e.g., nutrition, physical activity, tobacco use, alcohol use, sleep habits, social habits)
10. Patient goals for treatment

b. Systems Review: is a brief or limited examination of the anatomical and physiological status of the cardiovascular/pulmonary, integumentary, musculoskeletal, and neuromuscular systems, and the communication, affect, cognition, language and learning style of the patient/client. *(At the clinical specialist practice level baseline information is not simply collected and reported. The advanced practitioner synthesizes this information and applies it specifically considering the pathology, signs and symptoms and uses it for critical clinical decision making.)*

1. Multisystem review (e.g., cardiovascular, pulmonary, integumentary, lymphatic, neurological, urogenital, gastrointestinal)

2. Psychological assessment including depression and suicide screening
3. Assessment of communication affect, cognition, language, and learning style of patient/client.
4. Early recognition and management of suspected conditions necessitating referral
5. Prioritization of relevant screening procedures based on health condition, previous tests and interventions, patient history and observation
6. Appropriate documentation and communication of systems review results as indicated.

c. Tests and Measures: *This category includes selection, prioritization, and performance of tests and measures related to and required of specialty practice.*

1. Anthropometric measures (e.g., BMI, weight, height, waist circumference)
2. Arousal, Attention, and Cognition (e.g., arousal and awareness scales, ability to process commands, communication and language barriers, level of consciousness, motivation, and capacity to participate in intervention, orientation to person, place, time, and situation, and recall ability).
3. Circulation (e.g., arterial, venous, lymphatic)
 - a. Cardiovascular signs including heart rate, rhythm, and sounds; pressures and flow; and superficial vascular responses (e.g., auscultation, electrocardiography, girth measurement, observations, palpation, sphygmomanometry, ankle/brachial index, perceived exertion scales)
 - b. Cardiovascular symptoms (e.g., angina, claudication)
 - c. Differentiation of peripheral edema (e.g., vascular insufficiency, cardiac associated edema, lymphedema)
 - d. Physiological responses to position change (e.g., autonomic responses, central and peripheral pressures, heart rate and rhythm, respiratory rate, and rhythm, and ventilatory pattern)
4. Diagnostic testing (e.g., laboratory tests, imaging, ultrasound and electrophysiologic testing)
5. Dynamic assessment with and without the use of assistive, adaptive, orthotic, or other devices/equipment
 - a. Activities of daily living performance
 - b. Balance (e.g., vestibular, proprioceptive, visual)
 - c. Coordination

- d. Gait & locomotion (e.g., functional performance tests such as gait speed, gait indexes, 6-min walk, Timed Up-and-Go)
 - e. Motor function (e.g., assessment of motor learning and motor control)
 - f. Movement analysis (e.g., real time observation, video, technology)
 - g. Safety assessment (e.g., falls risk assessment, ergonomics)
6. Illness behavior assessment (e.g. Screen Assist, Keele STarT Back Screening Tool, depression screen)
 7. Integumentary assessment (e.g., signs of inflammation, soft tissue swelling/inflammation/infection, wounds, skin cancer screening)
 8. Joint integrity (e.g., joint mobility assessment to include active and passive range of motion, passive accessory motions, response to manual provocation)
 9. Lymphatic system function (e.g., girth and volume measurements, palpation, observation of skin texture)
 10. Musculoskeletal assessment (e.g., muscle performance, endurance, strength, power, muscle tone, fracture screening)
 11. Neurologic assessment
 - a. Cranial nerve integrity
 - b. Neuromechanical assessment (e.g., nerve mobility/neurodynamics)
 - c. Neuromotor development and sensory integration (e.g., assessment of age-appropriate development, dexterity, coordination, and integration of somatosensory, visual, and vestibular systems)
 - d. Neuromotor screen (e.g., upper and lower motor neuron screens including tests such as Babinski and Hoffman's)
 - e. Reflex integrity (e.g., including normal and pathological reflexes)
 - f. Sensory integrity (e.g., assessment of superficial sensation, dermatomes, myotomes, proprioception, and kinesthesia)
 12. Observation (e.g., posture, deformity, symmetry, affect, transfers, and motor control)
 13. Orthotic, protective, prosthetic, and supportive devices (e.g., assessment of appropriateness, use, remediation of impairment, alignment and fit, safety).
 14. Pain (e.g., assessment using questionnaires, behavioral scales, visual analog scales, and prioritizing exam procedures according to localized vs widespread pain and sensitivity)

15. Palpation (e.g., edema, bony landmarks, muscles, tendons, ligaments, presence of abnormal tissue examination such as masses or deformities, symptom manifestation/modification)
16. Pulmonary assessment (e.g., breath sounds/rate, nail clubbing, lung auscultation)
17. Soft tissue assessment (e.g., myofascial mobility, pain pressure threshold)
18. Special tests specific to working diagnosis are appropriately sequenced and prioritized with acceptable psychometric properties
19. Vestibular assessment (e.g., BPPV tests, vestibulo-ocular reflex, oculomotor function, HINTS exam, Dizziness Handicap Inventory)

d. Re-examination: Ongoing assessment and reassessment throughout the continuum of care

2. Evaluation (*Specific to specialty practice*)

- a. Interpreting and integrating data from the examination (considering patient/client goals, stage/irritability of condition, personal and environmental factors) across the ICF domains to determine a diagnosis, prognosis, and plan of care.
- b. Integrating findings from other health care professionals and ancillary testing (e.g., imaging, labs, electrophysiological studies, pulmonary function test results)
- c. Identifying current, emerging, or potential “yellow” and/or “red flags” which may warrant caution throughout client management, medical referral, or both
- d. Triage patients as first contact providers at an advanced competency level
- e. Linking examination findings to patient/client activity, quality of life, and wellness as established by the ICF
- f. Determining risk stratification (e.g., risk for chronicity or poor outcome, risk for delayed return to activity/work, suicide risk, depression)

3. Diagnosis (*Specific to specialty practice. May include variations or complexities associated with known pathology, identifying contributing factors, hypothesizing links between impairments and functional limitations, skills of differential diagnoses, etc.*)

- a. Conducting rapid differential diagnosis and triage of emergent versus non-emergent health conditions
- b. Continuously refining the working hypothesis (e.g., primary hypothesis, competing hypotheses, complicating factors such as co-morbidity and economic/social factors)

- c. Using advanced pattern recognition to differentially diagnose by efficiently organizing examination data into recognized clusters or categories.
- d. Avoiding common diagnostic reasoning errors such as anchoring, confirmation bias, and other sources of medical error

4. Prognosis (*Specific to specialty practice. May address variations on age or complexity associated with known pathology, stages of recovery, natural history of condition, disorder, or impairment, etc.*)

- a. Establishing a prognosis, including the predicted optimal level of improvement in function and the amount of time needed to reach that level
- b. Selecting plan of care to include referral to another health care professional, physical therapy intervention, or further examination
- c. Developing a plan of care that prioritizes and links interventions to the working hypothesis and patient/client goals
- d. Responding to emerging data from examinations and interventions:
 - 1. Assessing response to intervention (changes in signs and symptoms; new symptoms; changes in tissue response, mobility, and function)
 - 2. Interpreting the significance of changes in signs and symptoms as they relate to the plan of care, and modifying/redirecting examination and interventions accordingly (determine relationship between expected result and actual result, cause of change, relevance of change)

5. Interventions: (*Address all categories from specialization perspective*)

a. Coordination, Communication, and Documentation

- 1. Communicating effectively with patients/clients, family members, caregivers, practitioners, consumers, payers, and policy makers about health issues
- 2. Discussing rationale for physical therapy examination and intervention procedures, including use of current best evidence, with patients/clients, peer professionals, and payers
- 3. Collaborating as a healthcare team member and leader to ensure that physical therapy is a part of an appropriate, culturally competent, comprehensive plan for care
- 4. Adapting communication to patient/client needs (e.g., educational/cognitive level, psychosocial needs)
- 5. Completing thorough documentation following guidelines and specific documentation formats required by the practice setting (e.g., communication with payer)

sources for maximizing treatment services and resources, legal protection of staff, patient, and/or facility)

b. Patient/Client-Related Instruction

1. Providing instruction about diagnosis, prognosis, intervention strategies, responsibility/self-management within the plan of care
2. Developing mutually acceptable goals
3. Using biopsychosocial and biomedical models
4. Applying pain physiology and dose response
5. Providing instruction on disease prevention and wellness
6. Integrating behavior modification and cognitive-behavioral approaches (mental)
7. Planning for end of episode of care

c. Procedural Interventions (*This category includes selection, prioritization, and knowledge of performance ability for procedural interventions related to and required of specialty practice.*)

1. Airway clearance techniques (e.g., breathing strategies, manual/mechanical techniques, and positioning)
2. Body mechanics training and ergonomic modification counseling
3. Functional training in self-care and in domestic, education, work, community, social, and civic life (e.g., ADL and IADL training, environmental modification recommendations to optimize independence, task-specific functional training, cues and adjustments of faulty biomechanics)
4. Gait training (general, with assistive devices, and with technology)
5. Graded exposure/ graded activity
6. Integumentary repair and protection techniques (e.g., managing positioning/postures, orthotic selection, protective and supportive device recommendations, debridement, wound therapy, dressings, and modalities)
7. Manual therapy (e.g., soft tissue mobilization, joint mobilization/manipulation, dry needling, lymphatic drainage, visceral therapy)
8. Neurological therapy treatment (e.g., task specific neuromuscular reeducation, balance activities, gait training)

9. Plan specific type and dosage of home/independent exercise/treatment programs, identifying indications/contraindications
10. Prescription, application and/or fabrication of protective, adaptive, or supportive device or equipment (e.g., orthotics, braces, serial casting, wheelchairs, kinesiotaping)
11. Prevention, Wellness, and Health Promotion Services
 - a. Providing culturally appropriate physical therapy services for prevention, health promotion, and fitness and wellness programs to individuals, groups, and communities
 - b. Promoting health and quality of life for patients/clients by providing information on health promotion, fitness, wellness, disease, impairment, functional limitations, disability, injury prevention, secondary prevention in chronic disease, disability managements and health risks related to age, gender, culture, and lifestyle
 - c. Providing education, behavior strategies, referral opportunities, and identification of supportive resources for adherence to health care recommendations (e.g., stress management, weight management, nutritional strategies, sleep health, alcohol moderation, substance-free and violence-free living)
12. Proprioception training (e.g., repositioning, balance, agility)
13. Therapeutic exercise (e.g., aerobic capacity and endurance, motor control and coordination, muscle strengthening and endurance)
14. Vestibular training (e.g., canalith repositioning maneuvers, gaze stabilization exercises)

6. Outcomes (*Specific to specialty practice. Include assessment measures and tools related only to advanced clinical practice.*)

- a. Assessing remediation of activity and participation limitations, optimization of patient satisfaction, and promotion of primary and secondary prevention.
- b. Choosing appropriate assessment measures to determine initial and long-term responses to intervention.
- c. Using applicable, evidence-based outcomes measurement tools/questionnaires/scales (e.g., STarT BACK, Lower Extremity Functional Scale, Timed Up and Go, 6-minute walk test)
- d. Determine attainment of agreed-upon functional goal(s) and level of patient/client satisfaction

- e. Assessing efficacy of resources used to achieve patient outcomes

7. Referral/Consultation

- a. Efficiently recognizing signs and symptoms necessitating urgent referral to physician or emergency medical care
- b. Referring and/or consulting with other professionals for further examination as appropriate, based on systems review and medical screening
- c. Referring for needs beyond the scope of physical therapy practice
- d. Collaborating and coordinating patient management throughout the continuum of care

III. CHAPTER 3: ORGANIZATION AND APPLICATION OF ADVANCED SPECIALTY KNOWLEDGE AND SKILLS TO PRACTICE

The following chapter uses case scenarios to link practice expectations to knowledge areas. Each scenario has sample questions followed by explanations. The explanations are keyed to the specific numbered items in Chapter 2 of this document. These scenarios and references are included as examples only and are not intended to be all inclusive. The terminology used throughout the scenarios is from the Guide to Physical Therapy Practice.

Case Scenario 1

A 60-year-old male patient presents direct access for high severity right rib and thoracic pain. Symptoms presented one month earlier without apparent injury but sought medical attention due to gradual worsening nature. He is currently experiencing waves of 'spasms' intermittently throughout the day. Symptoms are generally worse in the early afternoon and evening. Any movement, though particularly forward flexion and deep breaths increase symptoms. Pain is most intense around the axilla and associated ribs. He reports increased alcohol intake to reduce pain. He has irregular visits to his Primary Care Physician, most recently two months ago. Urodynamics completed and revealed >1000 ng/ml ethyl glucuronide (EtG) and ethyl sulfate (EtS). Blood lab results revealed an A1C of 6%, but high levels of direct/total bilirubin and gamma-glutamyl transpeptidase (GGTP).

Past medical history includes depression, alcohol abuse, macrocytosis, hypertension, fatty liver disease, diabetes mellitus (type II). Hospitalized seven years earlier for pancreatitis. Long term low-dose opioid user for chronic lower back pain, which is stable. History of asbestos exposure, but stable 5 mm nodule on lung CT completed two months ago. He indicates going to an emergency department the day earlier where he was prescribed topicals, which have not helped, and was encouraged to visit a physical therapist.

- Question 1:** Subjectively, what question would be the most useful in ruling up or down a differential diagnosis?
- A. Symptom intensity change after meals

- B. Specific volume of alcohol consumption
- C. Breathing changes
- D. Bowel and bladder changes

The correct answer is A.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy & Physiology
 - Cardiovascular and pulmonary
 - Musculoskeletal
 - Genitourinary
 - Immunologic
 - Gastrointestinal
 - Endocrine

Clinical Sciences

- Pathology
 - Signs and symptoms of disease/injury
 - Disease/Injury process and progression
- Medical and Surgical Considerations
 - Medical Screening
 - Laboratory Science
 - Screening of lab values
 - Integrating results with clinical examination data
 - Practice Considerations
 - Systems-Based Practice
 - Models of differential diagnosis and clinical reasoning

There are no overt red flags precluding physical therapy evaluation or treatment, but many concerning features which warrant close evaluation. Current alcohol consumption is important, but provided recent lab markers already indicate heavy alcohol use and past medical history would suggest abuse². Breathing changes such as new shortness of breath, questions about hypoxia, and pain associated with breathing are also useful to assess. However, this is a less likely differential based on his pain location and stable lung CT scan. Bowel and bladder referred pain is a significantly less likely differential based on symptom location and lack of relevant associated past medical history. Cyclic pain association with meals may implicate hepatobiliary involvement, which would raise the clinical likelihood of hepatic and/or biliary referred pain¹. This makes option A the best answer.

References

1. Johnson CD. ABC of the upper gastrointestinal tract. Upper abdominal pain: Gall bladder. *BMJ*. 2001;323(7322):1170-1173. doi:10.1136/bmj.323.7322.1170

2. Subhani M, Sheth A, Ahmad B, Ryder S. How to interpret and manage abnormal liver blood test results in older people. *Br J Hosp Med (Lond)*. 2021 Aug 2;82(8):1-8. doi: 10.12968/hmed.2021.0114. Epub 2021 Aug 4. PMID: 34431345.

- Question 2:** Which of the following assessments is most suggestive of visceral referred pain with this patient?
- A. Abdominal percussion
 - B. Chest/rib x-rays
 - C. Murphy's Sign
 - D. Chest/rib x-rays

The correct answer is C.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy & Physiology
 - Cardiovascular and pulmonary
 - Musculoskeletal
 - Gastrointestinal
- Movement Sciences
 - Effects of movement dysfunctions on multiple body systems

Clinical Sciences

- Pathology
 - Signs and symptoms of disease/injury
 - Disease/Injury process and progression
- Medical and Surgical Considerations
 - Medical Screening
 - Imaging Studies
 - Appropriateness criteria for ordering imaging
 - Integrating results with clinical examination data

Clinical Reasoning

- Resource efficiency specific to the patient as well as the patient's health care system
- Broad levels of hypothesis generation
- Advanced skills in pattern recognition

Familiarity with abdominal palpation, medical screening, basic gastroenterology, radiology, and orthopedic assessment is necessary to answer this question. X-ray imaging is better for assessing bony injuries and has poor utility with most soft tissues³. It could be used to evaluate the lungs. However, the CT performed 2 months earlier is more accurate and except in the case of a rare and highly aggressive lesion, would likely be unrevealing if performed again. Though AROM patterns are reported in the literature in cases of visceral referred pain⁵, many pain sources may also present similarly. Thoracic AROM is not significant enough alone

to rule in or rule out visceral pain. Abdominal percussion is used to determine the size and density of structures and organs in the abdominal cavity, to assess the presence of fluid or air, and pain reproduction. This would be useful in corroborating possible ascites and potentially enlarged liver, and but is unlikely to reproduce symptoms that might help confirm the diagnosis. While abdominal percussion includes liver/gallbladder percussion, Murphy's sign is a test which suggests cholecystitis and causes a moderate shift in probability^{1,2,4,6} making this the best option. With this, the patient takes a deep breath and holds while the clinician palpates the R subcostal area. The test is positive if pain is experienced on inspiration, as the gallbladder comes into contact with the clinician's hand.

References:

1. Adedeji OA, McAdam WA. Murphy's sign, acute cholecystitis and elderly people. *J R Coll Surg Edinb.* 1996 Apr;41(2):88-9. PMID: 8632396.
2. Jain A, Mehta N, Secko M, Schechter J, Papanagnou D, Pandya S, Sinert R. History, Physical Examination, Laboratory Testing, and Emergency Department Ultrasonography for the Diagnosis of Acute Cholecystitis. *Acad Emerg Med.* 2017 Mar;24(3):281-297. doi: 10.1111/acem.13132. PMID: 27862628.
3. Metra BM, Guglielmo FF, Halegoua-DeMarzio DL, Civan JM, Mitchell DG. Beyond the Liver Function Tests: A Radiologist's Guide to the Liver Blood Tests. *Radiographics.* 2022;42(1):125-142. doi:10.1148/rg.210137.
4. Mills LD, Mills T, Foster B. Association of clinical and laboratory variables with ultrasound findings in right upper quadrant abdominal pain. *South Med J.* 2005 Feb;98(2):155-61. doi: 10.1097/01.SMJ.0000129927.88863.65. PMID: 15759944.
5. Pacheco-Carroza EA. Visceral pain, mechanisms, and implications in musculoskeletal clinical practice. *Med Hypotheses.* 2021 Aug; 153:110624. doi: 10.1016/j.mehy.2021.110624. Epub 2021 Jun 6. PMID: 34126503.
6. Singer AJ, McCracken G, Henry MC, Thode HC Jr, Cabahug CJ. Correlation among clinical, laboratory, and hepatobiliary scanning findings in patients with suspected acute cholecystitis. *Ann Emerg Med.* 1996 Sep;28(3):267-72. doi: 10.1016/s0196-0644(96)70024-0. PMID: 8780468.

Question 3: Assuming your abdominal and visceral screening is negative for reproduction of symptoms, would it be most appropriate to:

- A. Treat
- B. Treat and Refer
- C. Refer

Correct answer is B.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy & Physiology

- Cardiovascular and pulmonary
- Musculoskeletal
- Gastrointestinal

Behavioral Sciences

- Health Promotion and Disease Prevention
 - Impact of health behaviors on general health, disease risk, and prognosis for specific conditions across the lifespan
 - Principles of prevention and wellness

Clinical Sciences

- Pathology
 - Signs and symptoms of disease/injury
 - Disease/Injury process and progression
- Medical and Surgical Considerations
 - Medical Screening
 - Laboratory Science
 - Integrating results with clinical examination data
 - Diagnostic tests and measures
- Practice Considerations
 - Systems-Based Practice
 - Collaboration and coordination throughout the continuum of care

Clinical Reasoning

- Resource efficiency specific to the patient as well as the patient's health care system
- Advanced skills in pattern recognition

Referral/Consultation

- Referring and/or consulting with other professionals for further examination as appropriate, based on systems review and medical screening
- Referring for needs beyond the scope of physical therapy practice

In this scenario, many factors raise concern for non-musculoskeletal differential diagnoses; worsening nature, alcoholism, likelihood for past/current chronic liver disease. However, no clinical feature precludes physical therapy intervention. Additionally, it could also be useful to assess change through the treatment course and to help provide more collaborative care with other care team members. Thus, option B to Treat and refer is the best selection.

Physical therapists are uniquely poised for wellness and whole-health medicine considering the time and rapport developed with patients¹. In this case, it could be beneficial to discuss excessive alcohol consumption and provide resources if he is receptive to reducing his intake. If symptoms don't respond to physical therapy intervention, or if red-flag symptoms occur it could also be helpful to collaborate with the rest of the patient's care team. Referring the patient to a primary care physician, or internist would be helpful in attempting to reasonably rule out visceral causes of the patient's symptoms. However, choosing to refer and not treat would delay appropriate care for this patient, assuming his symptoms are musculoskeletal. In conclusion, the patient has several non-musculoskeletal concerns which warrant

attention. Providing focused physical therapy treatment, but ignoring the patient's depression, alcohol abuse, and potentially liver disease would be a detriment to this patient. Primary care physical therapists should provide a multifaceted whole-health approach.

Reference:

1. Boissonnault B, Vanwye W. Primary Care for the Physical Therapist: Examination and Triage. 3rd Ed. Elsevier; 2020.

Case Scenario 2

A 45-year-old female arrives at your primary care physical therapy clinic as a self-referral. She reports a one month history of urinary leakage with jumping and running, and right hip pain of several weeks duration which is aggravated with deep squats. She denies clicking, locking, or snapping at the right hip though reports that the hip feels tight. Her past medical history is significant for cervical cancer with hysterectomy when 41 years old, no other reported treatment. She indicates having started a high intensity impact exercise program eight weeks ago attending five times per week of 60 minutes duration. She reports the ability to stop the flow of urine midstream and no other incidence of urinary incontinence except during her exercise classes. During the initial evaluation, there is weakness at the gluteus medius and transverse abdominus. An internal pelvic floor assessment is not completed due to patient request to forgo that aspect of testing. She is tender at the right iliopsoas (abdominal and anterior hip) with a positive FABER, FADIR, and decreased mobility of the iliopsoas. Her symptoms are also provoked with passive and active hip flexion and internal rotation. Sacroiliac joint and lumbar testing do not provoke the right hip pain.

- Question 1:** Which of the following types of incontinence is the most likely diagnosis?
- A. Urge incontinence
 - B. Stress incontinence
 - C. Mixed incontinence
 - D. Functional incontinence

The correct answer is B.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy and Physiology:
 - Musculoskeletal
 - Genitourinary
- Movements Sciences

- Effects of movement dysfunctions on multiple body systems, including immediate and long-term

Clinical Sciences

- Pathology
 - Signs and symptoms of disease/injury

Clinical Reasoning

- Advanced skills in pattern recognition

Examination

- History
 - Medical history
 - Prior level of function

This patient reports urine loss during episodes of jumping and running exercises. The answer lies in the specialty knowledge and understanding that this is a classic symptom of stress incontinence. The impact of exercise and incidence of urinary incontinence has been studied with results suggesting that there may be a decrease in the muscle strength and reduced support to the pelvic floor creating a supportive dysfunction during episodes of increased intra-abdominal pressure. High impact exercise may further contribute to supportive dysfunction and the incidence of urinary incontinence. There are no other symptoms representing the other types of incontinence.

References:

1. Bo K, Borgen JS. Prevalence of stress and urge urinary incontinence in elite athletes and controls. *Med Sci Sports Ex.* 2001; 33 (11); 1797-1802.
2. Dockter M, Kolstad AM, Martin KA, Schiwal LJ. Prevalence of urinary incontinence: a comparative study of collegiate female athletes and non-athletic control. *JWHPT.* 2007; 31: 12-17.
3. Figuers CC, Boyle KL, Caprio KM, Weidney AC. Pelvic floor muscle activity and urinary incontinence in weight-bearing female athletes vs. non-athletes. *JWHPT.* 2008; 32: 7-11
4. The Gynecological Manual from the Section on Women's Health, APTA, 2000, pgs: 379-381.

Question 2: The anterior right hip pain, provoked by hip flexion and internal rotation, decreased hip extension mobility, and with the noted positive special tests, is consistent with which hip dysfunction?

- A. Labral tear
- B. Quadriceps muscle strain
- C. Femoral acetabular impingement (FAI)
- D. Gluteus Medius muscle strain

The correct answer is C.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy and Physiology
 - Musculoskeletal
- Movements Sciences
 - Kinesiology/clinical biomechanics

Clinical Sciences

- Pathology
 - Signs and symptoms of disease/injury

Critical Inquiry Principles and Methods

- Critical appraisal and application of research findings in Primary Care Physical Therapy

Professional Roles, Responsibilities and Values of Primary Care Clinical Specialists

- Evidenced Based Practice

Clinical Reasoning

- Advanced skills in pattern recognition which drive:
 - Expert prioritization of differential diagnosis and systematic assessment to rule in/rule out hypotheses.
 - Evolving understanding of patient presentation and identifying underlying mechanisms, contributing to patient problem(s).

Examination

- History
 - Patient major complaints
 - Medical history
- Tests and Measures
 - Joint integrity (e.g., joint mobility assessment or include active and passive range of motion, passive accessory motions, response to manual provocation)
 - Musculoskeletal assessment (e.g., muscle performance, endurance, strength, power, muscle tone, fracture screening)

Evaluation

- Interpreting and integrating data from examination including results of outcome measures across the ICF domains to determine diagnosis, prognosis, interventions, outcomes, and referral/consultation

This patient reports pain during dynamic movements, pain during strength testing, and positive special tests at the hip. Irritability and pain with ROM (flexion, internal rotation) and strength testing combined with positive special tests at the hip without presence of clicking, snapping, or locking, and with pain located in the anterior hip/pelvis is consistent with a FAI.

References:

1. Enseki K, Harris-Hayes M, White DM, Cibulka MT, Woehrle J, Fagerson TL, Clohisy C. Nonarthritic hip joint pain. Clinical practice guidelines linked to the International Classification of Functioning, Disability and Health from the Orthopaedic Section of the American Physical Therapy Association. *J Orthop Sports Phys Ther.* 2014; 44 (6): A1 – A32.

2. Montenegro MLLS, Vasconcelos ECLM, Candido Dos Reis FJ Nogueira AA, Poli-Neto OB. Physical therapy in the management of women with chronic pelvic pain. *Int J Clin Prac.* 2008; 62 (2): 263-269.
3. Travell JG, Simons DG. *Myofascial Pain and Dysfunction: The Trigger Point Manual. The Lower Extremities.* Baltimore, Md: Williams & Wilkins: 1992.

- Question 3:** What is the most appropriate initial plan of care?
- A. Treat: initiate treatment for incontinence and FAI.
 - B. Refer: refer back to primary care provider for further work-up.
 - C. Treat and refer: initiate treatment for incontinence and FAI, communicate findings to gynecologic-oncology provider, and recommend baseline FAI imaging.
 - D. Additional exam information is needed before proceeding.

The correct answer is C.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human anatomy and physiology
 - Musculoskeletal
 - Genitourinary

Clinical Sciences

- Pathology
 - Signs/symptoms of disease/injury
- Medical and Surgical Considerations
 - Imaging Studies
 - Appropriateness criteria for ordering imaging

Professional Roles, Responsibilities and Values of Primary Care Clinical Specialists

- Communication
 - Effectively and efficiently communicating findings to the patient/client and health care team

Evaluation

- Identifying current, emerging, or potential yellow and/or red flags which may warrant caution
- Triaging patients as first contact providers at an advanced competency level
- Determining risk factor stratification

Prognosis

- Selecting plan of care to include referral to another health care professional, physical therapy intervention, or further examination

Referral/Consultation

- Collaborating and coordinating patient management throughout the continuum of care

The primary care clinical specialist must have advanced knowledge in systems screening and the clinical relevance of risk factors and red flags. The specialist must recognize that personal history of cancer is the number one predictor of active cancer; and that younger cancer is often more aggressive. This case warrants, at minimum, collaboration and communication with the gynecologic-oncology provider due to personal prior cancer at age 41. The primary care clinical specialist must also have broad system knowledge beyond musculoskeletal, to include genitourinary, to be able to establish and initiate a plan of care and physical therapy interventions. It would be appropriate to initiate treatment for incontinence and FAI, while concurrently communicating back to the gynecologic-oncology provider and facilitating baseline imaging for suspected FAI.

References:

1. Schmaranzer, F., Kheterpal, A. B., & Bredella, M. A. (2021). Best Practices: Hip Femoroacetabular Impingement. *AJR. American journal of roentgenology*, 216(3), 585–598.
2. Verhagen AP, Downie A, Maher CG, Koes BW. Most red flags for malignancy in low back pain guidelines lack empirical support: a systematic review. *Pain*. 2017 Oct;158(10):1860-1868. doi: 10.1097/j.pain.0000000000000998. PMID: 28708761.

- Question 4:** The patient modifies her high intensity exercise program and her daily activities as recommended and begins a home exercise program to strengthen the involved muscles. She has been attending physical therapy 1x/week for 6 weeks and reports significant reduced urinary incontinence. Although she has been compliant, she reports continued right hip pain with minimal change in status. The appropriate next step is which of the following?
- A. Progress with trunk, hip, and pelvic strengthening
 - B. Pause treatment, encourage rest including refrain from exercise with return to the clinic in 2 weeks to re-evaluate
 - C. Review lack of progress with gynecologic-oncology provider, and collaborate with a hip preservation specialist to consider next steps
 - D. Continue with the current plan of care with addition of stretching exercises to her home program

The correct answer is C.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy & Physiology
 - Genitourinary
 - Musculoskeletal

Clinical Sciences

- Pathology
 - Tissue inflammation, healing, response to exercise, and repair
- Medical and Surgical Considerations
 - Imaging studies: appropriateness criteria for ordering imaging

Professional Roles, Responsibilities, and Values of Primary Care Clinical Specialists

- Communication
 - Effectively and efficiently communicating findings to the patient/client and health care team

Re-examination

- Ongoing assessment and reassessment throughout the continuum of care

Evaluation

- Identifying current, emerging, or potential yellow or red flags which may warrant caution throughout client management, medical referral, or both

Prognosis

- Responding to emerging data from examinations and interventions
 - Assessing response to intervention
 - Interpreting the significance of change in signs and symptoms as they relate to the plan of care, and modifying/redirecting examination and interventions accordingly

Referral/Consultation

- Referring and/or consulting with other professionals for further examination as appropriate
- Collaborating and coordinating patient management throughout the continuum of care.

Following six weeks of therapeutic interventions including patient participation with the home program with no reported symptomatic improvement of the right hip pain, the most appropriate next course of action is reviewing the case with the gynecologic oncology provider for their opinion based on prior history of cancer and collaborating with a hip preservation specialist to determine next steps in management of FAI (e.g., possibly injections vs surgery based on patient factors). A primary care clinical specialist does not refer back for further work-up without clear communication and recommendations, but rather continues to collaborate and guide the team in comprehensive patient management. This includes using advanced knowledge and skill to clearly communicate indicated imaging studies (and specific views) for suspected pathology. In this case, the primary care clinical specialist would communicate recommendations for A/P pelvis, 45deg Dunn views, and false profile views for further FAI work-up. Some may have the ability to order directly, while

others will need to communicate and recommend through another health care provider.

Reference:

1. Goodman, Catherine C., Snyder, Teresa, E. *Differential Diagnosis for Physical Therapists Screening for Referral*. St. Louis, MO: Saunders, Elsevier: 2007; pgs 26, 31 100-102, 610, 611, 765, 766.

Case Scenario 3:

You are a physical therapist embedded in the primary care team consisting of a primary care provider, RN, and an LPN in an outpatient clinic. A 64-year-old male patient presents to the primary care physical therapy clinic with a chief complaint of left shoulder pain. His symptoms started insidiously one month ago. He has increased pain with overhead movement and relief of symptoms with his arm resting on his stomach. He has noticed a progressive increase in symptoms when he reaches out to the side and when reaching behind his back to put on his jacket. He is concerned about his health, as he takes care of his 3-year-old and 1-year-old adopted daughters.

Question1: What additional questions are appropriate to avoid cognitive bias and provide a more complete history of the patient's overall health?

- A. What is the patient's pack-year history?
- B. Has the patient had any recent shoulder surgeries?
- C. How does the patient describe his pain?
- D. Does the patient have neck pain or limitations?
- E. A and D

The correct answer is E.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy & Physiology
 - Musculoskeletal
 - Cardiovascular and pulmonary
 - Lymphatic
 - Gastrointestinal

Examination

- History
- Systems Review

To answer this question, a primary care clinical specialist must be aware of past medical history beyond musculoskeletal systems. A thorough medical history needs to be taken with a broad range of differential diagnoses in mind, with an end

treatment plan in mind to include referral to a specialist, and which specialist should be recommended to the primary care provider.

The beginning portion of the case indicates the patient has a musculoskeletal shoulder injury. To avoid cognitive biases, it is important to understand that left shoulder pain may be indicative of a referred pain pattern of cardiac or other visceral organs. Recent shoulder surgery is important, however, may contribute to a confirmation bias with less consideration for an additional hypothesis. The description of the patient's pain may be helpful in determining the nature of his injury, however, does not provide information to complete a thorough history and other questions should be prioritized in the systems review process to rule up or down other body systems.

References:

1. Croskerry P, Singhal G, Mamede S. Cognitive debiasing 2: impediments to and strategies for change *BMJ Quality & Safety* 2013;22: ii65-ii72.

- Question 2:** He has an additional history of smoking (30 packs per year), chronic pain, lung surgery, and COVID-19 four months ago. He denies pain at rest. However, he does have difficulty getting comfortable at night due to pain. He denies unexplained weight loss, fever, chills, headaches, numbness, tingling, or bowel and bladder changes. Given the additional information and patient's subjective report, what system is the highest priority and requires further subjective review?
- A. Musculoskeletal
 - B. Cardiopulmonary
 - C. Central Nervous system
 - D. All the above

The correct answer is B.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy & Physiology
 - Musculoskeletal
 - Cardiovascular and pulmonary
 - Lymphatic
 - Gastrointestinal
- Medical and Surgical Considerations
 - Medical Screening
- Clinical reasoning
 - Advanced skill in pattern recognition
 - Expert prioritization of differential diagnosis and systematic assessment to rule in/out hypotheses
- Practice Considerations
 - Systems-based practice

Examination

- History
- Systems Review

To answer this question, the primary care physical therapist needs to be aware of additional systems that are involved with the area of complaint and referred pain patterns associated with chief complaint. Information from a complete medical history should be used to formulate an appropriate priority list to guide the examination process.

References:

1. Severin R, Wang E, Wielechowski A, Phillips SA. Outpatient Physical Therapist Attitudes Toward and Behaviors in Cardiovascular Disease Screening: A National Survey. *Phys Ther.* 2019 Jul 1;99(7):833-848. doi: 10.1093/ptj/pzz042. Erratum in: *Phys Ther.* 2020 Apr 17;100(4):739. PMID: 30883642; PMCID: PMC6602156.

- Question 3:** Considering the answer to question 2, what is the first physical examination procedure that will provide you with the greatest amount of information to rule out the system selected above?
- A. Palpation of the soft tissue in the shoulder region
 - B. Active shoulder range of motion
 - C. Heart rate, blood pressure, oxygen saturation
 - D. Heart and Lung auscultations

The correct answer is C.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human anatomy and physiology
 - Musculoskeletal
 - Cardiovascular pulmonary

Clinical sciences

- Pathology
- Medical and Surgical Considerations
 - Medical Screening
- Practice Considerations
 - Systems-based practice

Professional Roles, Responsibilities and Values

- Clinical Reasoning
 - Advanced skill in pattern recognition
 - Efficient and effective use of algorithms

Examination

- Systems Review
 - Prioritization of relevant screening procedures
- Tests and Measures

- Circulation: cardiovascular signs

Additional information from the subjective report should help the primary care clinical therapist narrow the hypothesis pool down to one system, the cardiopulmonary system. The most basic baseline measures can be taken in the clinic and are helpful in screening for cardiology vascular and cardiopulmonary issues, as well as direct examination to more skilled procedures such as heart and lung auscultations. Musculoskeletal shoulder examination and neurological screening are a low priority at this stage in the examination process.

References:

1. Severin R, Sabbahi A, Albarrati A, Phillips SA, Arena S. Blood Pressure Screening by Outpatient Physical Therapists: A Call to Action and Clinical Recommendations. *Phys Ther.* 2020 Jun 23;100(6):1008-1019. doi: 10.1093/ptj/pzaa034. Erratum in: *Phys Ther.* 2021 Jul 1;101(7): PMID: 32232372; PMCID: PMC7462048.
2. Kotsis, Vasilios and Stabouli, Stella. Clinical overview: Hypertension, Screening and Prevention. Elsevier: ClinicalKey. Sept 9, 2022.

Question 4: The following vital signs were obtained: heart rate 81 beats per minute, blood pressure 209/123, oxygen saturation 98%. Considering these findings, what is the next most appropriate step in your plan of care?

- A. Continue with shoulder examination because blood pressure of 209/123 is considered normal and not a concern for physical therapy.
- B. Call 911 because his blood pressure is dangerously high, as this is a medical emergency, and it is your responsibility to determine the next course of treatment.
- C. Discontinued his shoulder examination because blood pressure of 209/123 is abnormal and instruct the patient to call his primary care provider at a later date.
- D. Contact the patient's primary care provider/team immediately and inform them of the patient's vital signs.

The correct answer is D.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human anatomy and physiology
 - Cardiovascular pulmonary

Clinical Sciences

- Pathology: signs/symptoms of disease/injury

Professional Roles, Responsibilities and Values of Primary Care Clinical Specialists

- Communication
 - Effectively and efficiently communicating findings to the patient/client and health care team

Evaluation

- Identifying current, emerging, or potential yellow and/or red flags which may warrant caution
- Triageing patients as first contact providers at an advanced competency level
- Determining risk factor stratification

Diagnosis

- Conducting rapid differential diagnosis and triage of emergent versus non-emergent health conditions
- Avoiding common diagnostic reasoning errors such as anchoring, confirmation bias, and other sources of medical error

Prognosis

- Selecting plan of care to include referral to another health care professional, physical therapy intervention, or further examination

Referral/Consultation

- Efficiently recognizing signs and symptoms necessitating urgent referral to physician or emergency medical care

The primary care clinical specialist serves as a referral source for other specialists and works as an integrated member of the primary care team. He/she recognizes the value of interdisciplinary treatment and consults/refers appropriately based on examination findings and patient presentation. The primary care clinical specialist recognizes patients on a system level and includes systems review during the examination process to rule out non-musculoskeletal pathologies.

The primary care clinical specialist must be able to recognize and understand the clinical relevance of abnormal vital signs and be able to coordinate and manage treatments with a primary care team. The patient's vital signs are abnormal and guidelines by Severin et al. indicate consulting with the primary care physician. This is the most appropriate action to take as the primary care physical therapist within an integrated primary care team. If the patient were having symptoms with these abnormal vital signs, it would be more appropriate to send the patient to the emergency room.

References:

1. Painsi A, Aggiusti C, Bertacchini F, Agabiti Rosei C, Maruelli G, Arnoldi C, Cappellini S, Muiesan ML, Salvetti M. Definitions and Epidemiological Aspects of Hypertensive Urgencies and Emergencies. *High Blood Press Cardiovasc Prev.* 2018 Sep;25(3):241-244. doi: 10.1007/s40292-018-0263-2. Epub 2018 Jun 18. PMID: 29916180.
2. Boissonnault WG, Ross MD. Physical therapists referring patients to physicians: a review of case reports and series. *J Orthop Sports Phys Ther.* 2012 May;42(5):446-54. doi: 10.2519/jospt.2012.3890. Epub 2012 Jan 25. PMID: 22282166.

IV. CHAPTER 4: EXAMINATION CONTENT OUTLINE

The examination blueprint is based on approximately 200 total questions on the examination, which are written to avoid use of negative stems. Examination questions typically represent both a practice expectation and a knowledge area associated with the expectation; however, questions also reflect professional roles and responsibilities as shown below. Questions on the exam typically involve a case scenario followed by one or more questions pertaining to the scenario.

The following is an outline summarizing the major components of the DSP and the approximate examination percentages for each content domain. The outline also contains information on the examination content based on patient/client conditions. Examination questions can represent knowledge areas; professional roles, responsibilities, and values; and patient/client management.

Exam Content Domain	% of Exam
I. Knowledge Areas	24
A. Foundational Sciences	6
B. Behavior Sciences	6
C. Clinical Sciences	6
D. Critical Inquiry, Principles, and Methods	6
II. Professional Roles, Responsibilities, and Values	34
A. Professional Behaviors, Leadership, Social Responsibility, Advocacy	5
B. Education	5
C. Communication and Consultation	6
D. Evidence-Based Practice	7
E. Clinical Reasoning	11
III. Patient/Client Management	42
A. Examination/Evaluation	12
B. Diagnosis/Prognosis	9
C. Interventions	8
D. Outcomes	6
E. Referral/Consultation	7
Total	100%

V. CHAPTER 5: SUMMARY ANALYSIS AND DISCUSSION OF THE PRACTICE ANALYSIS

A. Introduction

A practice analysis is a systematic study of professional practice behaviors and content knowledge that specialty practice comprises. The goal of the practice analysis was to validate the proposed Description of Advanced Clinical Practice in Primary Care. The data are then used to describe specialty practice in primary care physical therapy. This description of specialty practice (DSP) defines the content areas for the primary care specialist certification examination. This chapter summarizes the practice analysis research of the specialization in primary care physical therapy resulting in this DSP. The original practice analysis survey was formed by members of APTA's House of Delegates (led by Hadiya Green Guerrero PT, DPT and consultant Jean Bryan Coe, PhD). The taskforce created a Description of Specialty Practice (DSP), followed by a validation process through formal practice analysis survey administration in 2018. The supplemental and revised practice analysis survey administration in 2023 was led by the APTA Federal Primary Care Special Interest Group. The 11-member subjective matter expert (SME) workgroup (led by Ashley Cassel, PT, DPT, OCS) consisted of a diverse group of professionals from various practice settings (federal/non-federal, rural, academia, public health, prior emergency department experience), various areas of clinical practice (orthopaedics, neurology, sports, women's health, pediatrics, geriatrics, lymphedema/cancer rehab), as well as diverse ethnic and geographic backgrounds. Additionally, APTA Federal hired new consultants from the Human Resources Research Organization (HumRRO), Tim McGonigle & Jackson Millard. HumRRO is a non-profit research organization based in Alexandria, VA and specializing in development and evaluation of assessments for credentialing, education, and the workplace.

B. Methods

Prior to the first group meeting, with guidance from the consultant, the SME group used electronic communication for work ahead assignments. Members were asked to carefully consider what it is that they, as a specialist in primary care physical therapy, know and do at a higher level than the non-specialist. SME group members were also encouraged to talk with their professional colleagues to garner their input concerning their primary care practice as well as emerging trends in the practice of primary care. The result of these discussions and subsequent review was the basis for the DSP revalidation/revision survey. Following the two-day meeting the SME group continued to discuss and refine the survey items using Google docs, email and conference calls as needed.

Development of the Pilot Survey

The survey sections and scales were per ABPTS format. The actual survey items were developed and refined by consensus of the SME group. Contributing documents included the Guide to Physical Therapist Practice and its

patient/client management mode. Further design and administration of the survey was per ABPTS Guidelines.

The first three (Yes/No) questions in the survey determined if the potential respondent was a primary care PT practicing at the self-defined level of a specialist. The questions were as follows:

1. Does the initial description of this new specialty describe your own clinical practice?
2. Based on the initial description of this new specialty, I consider myself to be practicing Primary Care Physical Therapy at the level of a Specialist.
3. I am willing to participate in this survey.

A No answer to any of these questions completed the survey for that respondent. Respondents had to answer Yes to all three questions to proceed to the actual survey.

The survey contained five sections. Section 1 addressed Knowledge Areas expected of the primary care specialist. Items were rated on three scales: Frequency on a 5-point Likert-type scale with 0 being never and 4 being daily; Importance on a 4-point Likert-type scale with 0 being not important and 3 being very important; and Level of Judgment on a similar 4-point scale with 0 as do not use and 3 as analysis. Section 2 dealt with professional roles and responsibilities, and Section 3 focused on practice expectations in patient/client management. Both sections 2 and 3 were rated on the same scales of frequency and importance, and an additional four-point Level of Mastery scale, with 1 being Advanced Beginner and 4 being Expert. Section 4 asked about Examination Content for the proposed specialty and Section 5 contained demographic questions which mirrored other practice analysis surveys.

Pilot Testing

The purpose of the pilot survey was to ensure clarity of the survey questions and identify any new competencies that should be incorporated into the final survey. Although it would have shortened the survey and time commitment for respondents, since this was a new specialty and new DSP, the SME Group did not feel it would be appropriate to divide the survey by sections and have respondents only complete some of the sections. APTA research staff (Sarah Miller) uploaded the survey to the APTA survey tool and pilot testing was completed in the spring of 2018 with a small convenience sample of subject matter experts identified by the SME Group (N =25) as primary care specialists. Survey results (14 responses for a 56% response rate) and feedback in the form of written comments on the pilot survey resulted in only minimal editorial changes to the final survey.

Only three pilot respondents were practicing in a rural setting. The SME Group felt that this was likely due to the makeup of the convenience sample; however, because of this finding, the sampling plan for the final survey was changed to focus random sampling, in part, on APTA members in rural settings with 5 years of practice experience.

Especially since the pilot survey sample members had agreed ahead of time to complete the survey, the SME Group was concerned with the low response numbers. Unlike other new ABPTS specialties, the Primary Care survey was not backed by an existing APTA Primary Care section- from which to draw support. This situation made identifying and recruiting prospective Primary Care Specialists to complete the survey much more challenging. As such, the SME Group was less concerned with response rate and focused on completed surveys.

The pilot survey asked a question as to the naming of this new specialty. Other potential choices included Advanced General Practitioner, Family Practice, and Primary Health Care PT. Primary Care Physical Therapy was the preferred name.

The pilot survey required an average of 90 (45-180 range) minutes to complete, as would be expected for a full survey. Again, the SME Group initially chose to administer the final survey as the entire survey rather than splitting the survey. Their rationale was that respondents should see the entire proposed DSP.

In March 2018, the final survey was distributed electronically to 11,750 physical therapists. This list included targeted groups of Federal Section members, Rural Health Special Interest Group members, the remainder of the convenience sample the SME Group identified for the pilot survey, and uniformed services PTs who self-identified they were willing to participate. However, the vast majority were randomly selected APTA members who were members of multiple sections (not counting education, research, or private practice).

ABPTS staff sent multiple follow up emails to non-respondents and to those who had partially completed the survey. The survey was closed in June 2018. Respondents were given an opportunity to call or e-mail the project coordinator or project consultant if they had questions about the survey. Fewer than 10 potential respondents called or emailed, and their questions were related to eligibility to complete the survey. Results from that round of surveys were as follows:

- 146 answered NO to 1 of the first 3 questions and so skipped to the end
- 77 made it past the first 3 questions and completed the survey
- 116 made it past the first 3 questions but had not completed the survey

Review of the 116 non complete responses indicated that about 60 got past the first three questions but didn't get into the meat of the survey. The remaining 56 completed the majority of the survey sections before stopping the survey (30 stopped after Section 1, 20 after Section 2). Based on this information, the SME Group decided to include the data from the 56 incomplete surveys. The SME Group remained concerned with the overall low number of responses. Written comments indicated that the overall length of the survey was the basis for partial responses.

Based on that information, the Group made the difficult decision to split the survey and do a second fielding of the final survey. Respondents were randomly sent either Sections 1, 2, 4, and 5 or 3, 4 and 5. This was sent in September 2018 to another large random sample of APTA members (8,000). These

individuals were totally random and not targeted in any way as practicing in Primary Care. Last, over the summer, staff generated a list of 140 individuals who had heard about the practice analysis survey and identified themselves as primary care providers and willing to participate. Many of these PTs heard about the survey via an APTA Blog that SME members wrote and managed. Links were sent to that third group in September. Again, potential responders and non-completers received multiple email reminders to complete the survey. The survey was closed Oct 31st, 2018.

The survey went to a total of 11,750 people. There were 1,166 responses for a response rate of 9.9%.

- 223 (2%) people answered “yes” to the 1st 3 questions and completed the survey
- Of the 223, 146 completed the split survey
- 396 (3.4%) people answered “yes” to the 1st 3 questions and started but didn’t complete the survey. However, since most of the non-completing respondents stopped at the end of a section, the partial data was included in the data analysis.
- 514 people answered “no” to at least one of the 1st 3 questions which resulted in survey completion
- 33 people answered “no” to at least one of the 1st 3 questions but did not finish the third question so their survey was incomplete

C. Final Survey Administration

In October 2021, the phase 2 workgroup conducted an initial workshop with our consultants to thoroughly review phase 1 processes and progress as well as ABPTS/ABPTRFE Evaluation Report comments and feedback. One of the Board’s comments was that the analysis was not done according to the petitioner’s guide decision rules. HumRRO reanalyzed the survey data according to the petitioner’s guide decision rules. In December 2021, a workgroup reviewed each competency with the new decision rules. This led to an exclusion of 8 competencies rather than the 10 that were excluded previously. The workgroup also reviewed all existing DSPs and did not find any missing content in the draft Primary Care DSP that would warrant a supplemental survey.

A submission was sent to the board February 2022. The group received feedback from the Board in July 2022 and ultimately a supplemental survey was deemed necessary. The workgroup met in July 2022 and discussed the Board’s concerns regarding the limitations of the original survey and worked to provide feedback and updates to the practice analysis survey. It was decided to make sure we capture a full scope of primary practice is to send the full survey participants that had not participated previously and a supplemental survey to those who participated previously to respond to the additions of the practice analysis survey. The revised version of the full practice analysis survey and supplemental survey was approved February 2023.

Data collection commenced March 2023 and was disseminated to 5,730 physical therapists. Multiple reminders were sent. During the dissemination it was decided to split the survey to gather more responses. There were 67 responses to the

supplemental survey and 116 responses (some of those partial with a total completed response of 100) to the revised survey:

- 67 completed the supplemental survey
- 33 completed the full revised survey
- 83 completed a split revised survey

These responses combined with the original dissemination gives a sufficient sample size for all the items. Respondents were given the opportunity to call or email the project coordinator if they had questions about the survey.

D. Data Analysis

Include a description of the data analysis plan, including decision rules used by panels of judges to evaluate the data in developing new statements of competencies or descriptions of knowledge and skills. Describe sub-sample analyses that were done (e.g., comparing ratings of certified specialists with non-specialists). This description should also include an explanation of the development of the content outline, including the composition of the panel of experts constituted to develop the outline.

Given that several questions in the survey were the same for both 2018 and 2023, the data was combined for those same questions. This increased the sample size and confidence in the results. HumRRO analyzed the survey data according to decision rules in the Petitioners Guide. HumRRO staff computed means, standard deviations, and frequency distributions for all competencies and then categorized the results using the following decision rules.

Decision Rules for Categorizing Survey Results	
Category	Definition/Criteria
High Frequency High Importance	High frequency (≥ 3.0), high importance (≥ 2.5) tasks. Very <u>likely</u> to be critical
Low Frequency High Importance	Low frequency (< 3.0), high importance (≥ 2.5) tasks. May be critical
High Frequency Low Importance	High frequency (≥ 3.0), low importance (< 2.5) tasks. Less likely to be critical
Low Frequency Low Importance	Low frequency (< 3.0), low importance (< 2.5) tasks. Very <u>unlikely</u> to be critical

In December 2021, the workgroup reviewed each competency with the new decision rules. The workgroup considered both the category it fell in and new decision rules. The decision rules included:

- Section 1, at least 75% of respondents should rate the item on Importance at a 2 or 3 (moderately or very important) and on Level of Judgment at a 2 or 3 (application or analysis)
- Section 2 (Professional Practice Expectations: Professional Roles, Responsibilities and Values) and Section 3 (Practice Expectations, Patient/Client Management), at least 75% of the respondents should rate the item on Importance at a 2 or 3 (moderately or very important), on

Level of Mastery at a 2 or 3 (proficient or expert skill level), and on Frequency at 3 or 4 level (daily or weekly).

Descriptive statistics were used for data analysis. The mean ratings and standard deviations for all respondents were ranked from highest to lowest regarding frequency, importance, and level of judgment or mastery. For Level of Mastery, analysts recoded the responses to the same numerical scale as Level of Judgment (i.e., 0 to 3) to facilitate comparison across ratings.

E. Results

Summarize the results of the study. Include data tables of demographics and competency data. Highlight how the competencies have changed from the previous practice analysis. Identify what practices have been determined to no longer represent advanced practice, and what new competencies have been added. Provide data that will allow the reader to understand the rationale for those decisions.

Data from the first three sections of the survey are the basis for the description of primary care specialty practice shown in Chapter 2. According to the decision rules agreed upon and subsequent consensus of the SME group, 1 item was eliminated from Section 1, none from Section 2, and 37 from 3 of the survey. Categorically the items eliminated were identified as not performed at the specialist level. The SME Group determined that the survey responses driving these decisions reflected change in practice patterns over the past 10 years.

Again, eliminating an item from the DSP does not mean that primary care specialists do not use that intervention, but rather that the intervention is not performed significantly differently by specialists.

F. Conclusions

The demographic information shown in Chapter 1 is the most current on primary care specialists. The description of specialty practice for primary care physical therapy in Chapter 2 is based on the patient/client management model in the Guide to Physical Therapist Practice with emphasis on the knowledge areas and procedures that distinguish a primary care specialist from a non-specialist. The case scenarios in Chapter 3 are presented to help explain the connections between the Knowledge Areas and Procedures and the Practice dimensions and to familiarize prospective primary care specialists with the certification examination question format. The case scenarios include examples of the levels of knowledge and reasoning expected of specialists. Chapter 4 is the exam blueprint. Chapter 5 presents this technical report describing the practice analysis and the development of the DSP. This is a working document and will continue to be revisited on a recurring basis for review and revalidation based on changes in practice patterns over time.

Confidence in Survey Results

The results based on analysis of the survey data appear to be from a representative sample of primary care physical therapists. Given the representativeness of professional experience of respondents, the results are assumed to be representative of current primary care physical therapist practice. While standard deviations of responses indicated considerable variability in ratings of importance and frequency of use of content areas, the review of results conducted by a panel of practicing primary care physical therapists provided additional perspective and further clarified current practice.

Recommendations for Future Practice Analysis Surveys

In future practice analyses, it is recommended to consider splitting the survey in half from the start, so each survey contains fewer items and therefore take less time to complete. This may increase participation and potentially mitigate survey dropout. Another recommendation is to consider including prompts to complete any unanswered questions (particularly demographic questions) before leaving the survey. Adding such prompts when items are left blank may increase response rates for items, particularly near the end of the survey.

Reference:

Lozar Manfreda, K., & Vehovar, V. (2002). Survey design features influencing response rates in web surveys. Paper presented at the International Conference on Improving Surveys, Copenhagen, Denmark.

APPENDIX K: Primary Care Physical Therapy Description of Residency Practice

Preamble

The Description of Specialty Practice for Primary Care is a product of collaborative work by ABPTS and ABPTRFE. It is based on the 2018 and supplemental 2023 validation study.

Acknowledgements

The Primary Care Physical Therapy Description of Residency Practice was prepared by the members of phase one and phase two subject matter expert workgroups and supported by the American Physical Therapy Association and the American Physical Therapy Association Federal Primary Care Special Interest Group.

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I. Introduction

Specialist Certification

Specialist certification was established to provide formal recognition for physical therapists with advanced clinical knowledge, experience, and skills in a defined area of practice. Certification is achieved through the successful completion of a standardized application and examination process.

Please visit the [ABPTS website](#) for the History of Specialization in Physical Therapy as well as the History of Specialization in [insert practice area] Physical Therapy.

Demographic information specific to the board-certified specialists in primary care physical therapy based on the 2023 validation study can be found within the published practice analysis.

Residency Education

Residency education was established to provide physical therapists with formal post-professional learning experiences comprised of a curriculum encompassing the essential knowledge, skills, and responsibilities of an advanced physical therapist within a defined area of practice. The residency program prepares the physical therapist with the requisite knowledge and skill set needed to pass the specialty certification examination following graduation.

Please visit the [ABPTRFE website](#) for details on residency education opportunities for physical therapists.

II. Learning Domain Expectation

The Description of Specialty Practice (DSP) describes contemporary practice of primary care clinical specialists. The DSP is revalidated every 8 to 10 years to best reflect current practice. Development of this DSP was based on expert consensus, key guiding reference documents, and practice analysis survey results conducted in 2018 and supplemental validation survey in 2023.

A. Knowledge for Primary Care Specialty Practice

1. Foundation Sciences

- Human Anatomy & Physiology
 - Cardiovascular and pulmonary
 - Musculoskeletal
 - Genitourinary
 - Integumentary
 - Lymphatic
 - Immunologic
 - Gastrointestinal
 - Vestibular
 - Endocrine
- Movement Sciences
 - Kinesiology/clinical biomechanics
 - Kinematic and kinetic analysis of functional movements, postural control, and gait
 - Ergonomics
 - Locomotion
 - Motor control and learning
 - Effects of movement dysfunctions on multiple body systems, including immediate and long-term
 - Interrelationship among social, cognitive, and movement systems
- Exercise Physiology
 - Consideration for health conditions in exercise prescription
 - Adaptation of exercise interventions for safety and general health/wellness
- Human Growth & Development Across the Lifespan
 - Developmental biomechanics and lifespan changes
 - Physiology of aging
 - Muscle performance development and changes with aging
 - Mental function and changes with aging (e.g., screening for dementia)

2. Behavioral Sciences

- Biopsychosocial Model
 - Role of biopsychosocial model in relation to primary care practice (e.g., inter-professional management strategies, exam and management strategies that address psychosocial and personal factors)
 - Relationship of pain to disability
 - Influence of the primary care physical therapist's behavior on the patient's behavior and vice versa
 - Fear avoidance behaviors and other negative coping strategies related to pain and loss of function

- Pain neuroscience education and other patient-centered behavioral pain approaches
- Appropriate referrals to other pain management healthcare providers
- Communication Theory
 - Communication and nonverbal language to meet the needs of patient/client
 - Multidisciplinary medical team communication in the collaborative management and delivery of primary care services
- Psychology/Psychiatry
 - Common psychiatric symptoms, syndromes, and classifications
 - Effect of psychiatric disease and treatment on cognition, learning, and function
 - Recognition of and referral for psychological health conditions
 - Suicide Screening and Prevention
 - Psychosocial issues with aging
- Occupational health
 - Recognition of occupational and work-related diseases and injuries
 - Support return-to-work, preserve, and restore working capacity
- Health Promotion and Disease Prevention
 - Behavior change, stages of change, and readiness for change
 - Theories and practice of behavior change for clinical practice (e.g., Cognitive Behavior Therapy, Acceptance Commitment Therapy, Motivational Interviewing)
 - Impact of health behaviors on general health, disease risk, and prognosis for specific conditions across the lifespan
 - Principles of prevention and wellness
 - Sleep Science
 - Exercise for wellness recommendations (e.g., Health and Human Services, American College of Sports Medicine) on quantity, quality, and mode
 - Recommendations for nutritional needs across the lifespan (e.g., understanding professional organizations and government agencies guidelines and common dietary plans)
 - Nutrition impact on chronic disease
- Sociology/cultural competence
 - Cultural competence and sensitivity
- Teaching and learning theory (e.g., learning styles, teaching methods, assessment of learning)

3. Clinical Sciences

- Pathology
 - Immunology
 - Pathokinesiology
 - Signs and symptoms of disease/injury
 - Disease/Injury process and progression
 - Tissue inflammation, healing, response to exercise, and repair
 - Complications and considerations specific to bariatric medicine and obesity
- Pain Science

- Central nervous system pain physiology
- Peripheral nociceptive pain physiology
- Peripheral neuropathic pain physiology
- Output mechanisms and expressions (e.g., Immune, endocrine, sympathetic, behavioral)
- Social and psychological impacts related to pain
- Emergency/Trauma Medicine
 - Triage of acute neurologic and musculoskeletal conditions presenting to emergency/trauma departments
 - Early identification of yellow/red flags
 - Falls risk and safety assessments (including assessment and provision of assistive devices/equipment)
 - Educational subject matter expert for acute neurologic and musculoskeletal conditions
 - Referral for further intervention (e.g., including referral to other specialty care, medical work-up, imaging, social work, further PT services as necessary)
 - Discharge planning
- Medical and Surgical Considerations
 - Medical Screening
 - Imaging Studies
 - Appropriateness criteria for ordering imaging
 - Integrating results with clinical examination data
 - Applying results in referral/consultation management
 - Laboratory Science
 - Screening of lab values
 - Integrating results with clinical examination data
 - Diagnostic tests and measures (e.g., EKG, electrophysiological exams)
 - Pharmacology
 - Pharmacokinetics and pharmacodynamics
 - Pharmacological treatment of co-morbidities and common conditions
 - Drug interaction and polypharmacy
 - Evidence and education in regard to supplements
 - Nonsurgical medical interventions (e.g., steroid injections, nerve ablations, medial branch blocks) and implications for Primary Care Physical Therapy
 - Surgical and invasive interventions (e.g., laparoscopic arthroscopic procedures, joint arthroplasties, cardiac and vascular procedures) and implications for Primary Care Physical Therapy
- Population Health & Epidemiology
 - Epidemiology of chronic disease (e.g., implications for lifespan management, impacts on population health)
 - Recognition of hallmark signs for chronic disease process and ability to make appropriate referral/consultations
- Practice Considerations
 - Systems-Based Practice (e.g., actions that demonstrate an awareness of and responsiveness to the larger context and system of health care and the ability to effectively call on system resources to provide care that is of optimal value)

- Principles of physical therapy evaluation and treatment of patients across the lifespan with musculoskeletal, neuromuscular, cardiovascular, pulmonary, integumentary, or cognitive impairments
- Provision of advanced care across the lifespan for patients who self-refer or are referred to physical therapy
- Models of differential diagnosis and clinical reasoning such as hypothesis-oriented algorithm for clinicians (HOAC) model or the prospect theory
- Collaboration and coordination throughout the continuum of care

4. Critical Inquiry Principles and Methods

- Critical appraisal and application of research findings in Primary Care Physical Therapy

B. Professional Roles, Responsibilities and Values for Primary Care Specialty Practice

1. Professional Behaviors reflecting the Core Values:

- Practicing ethical decision-making consistent with the APTA Code of Ethics
- Demonstrating appreciation and respect for physical therapist scope of practice
- Maintaining state-of-the-art knowledge and skills by participation in continuing professional development (e.g., residency education, fellowships, seminars, structured study, journal clubs, etc.)
- Practicing ongoing reflection and self-evaluation to identify opportunities for development
- Identifying and prioritizing areas for growth and follows through as a life-long learner through review of research and professional affiliations
- Continuously assessing practice outcomes to validate physical therapy services based on quality, effectiveness, productivity, or service, and be able to identify opportunities for improvement.
- Demonstrating risk management strategies, including informed consent during physical therapy examination and intervention
- Devoting time and effort to effectively recognize and resolve complex problems
- Effectively navigating uncertainty/ambiguity
- Adhering to legally required reporting requirements (e.g., domestic violence, abuse)
- Maintaining a referral base of content experts (medical as well as non-medical) within the community for patient access
- Maintaining readily accessible network of interdisciplinary available resources (medical and non-medical) for consultation and referral
- Maintaining a readily accessible network of available interdisciplinary resources for consultation and referral that are compliant with all regulatory, agency, and time frame requirements.
- Identifying and encouraging inter-professional practice opportunities

- Promoting the rights of the patient to actively participate in their health care management considering the patient's wishes, goals, attitudes, beliefs, and circumstances
- Remaining current with evolving trends in patient preferences, changes in health policy on international, federal, and local levels

2. Leadership, Social Responsibility & Advocacy:

- Representing primary care physical therapy to other professional organizations
- Maintaining knowledge of current activities of national and international organizations of physical therapy
- Promoting health and quality of life for individuals across the lifespan
- Advocating for patients through direct patient care interventions, education, service, research, legislation, and the development of community resources

3. Education:

- Mentoring physical therapists, physical therapist assistants, other health-care professionals, physical therapist residents, and students by participating in clinical education and research related to Primary Care physical therapy
- Providing evidence-informed Primary Care physical therapy educational programs to a variety of audiences, including students, other health care professionals, the public, elected officials, political groups and candidates, and third-party payers

4. Communication

- Employing effective communication strategies with individuals across the lifespan, including verbal, nonverbal, and assistive technologies
- Effectively and efficiently communicating findings to the patient/client and health care team
- Using effective communication skills to manage interpersonal relationships judiciously and empathetically
- Effectively managing relationship/practice building
- Empowering individuals in the management of their own health
- Facilitating collaborative interprofessional communication, team management, and transitions of care for patients/clients
- Addressing cultural and/or social issues that affect the plan of care
- Employing communication skills necessary for effective utilization of technology in telephone and video visits (return visits and initial consults)

5. Consultation:

- Clients, clients' families, and other health-care professionals (e.g., in-services, support groups, and team meetings)

6. Evidence-Based Practice:

- Applying contemporary principles of evidence-based practice and knowledge translation in patient and client management while recognizing the limitations of incorporating evidence into practice.
- Evaluating the efficacy and effectiveness of examination tools, interventions, and technologies based on available evidence.
- Integrating and applying evidence informed approaches in the presentation of health promotion and preventive care programs
- Recognizing the need for the development of further evidence in primary care practice and the role of research in advancing the body of knowledge in primary care physical therapy
- Recognizing and assessing the risks, benefits, and economics of specific interventions (e.g., including the principle that interventions with little or no evidence for additional benefit, but some increased risk, should be deferred)
- Utilizing advanced knowledge and clinical skill when research questions have not been previously answered
- Utilizing appropriate patient outcome measures to guide patient management, and submitting outcomes to a national registry

7. Clinical Reasoning:

- Resource efficiency specific to the patient as well as the patient's health care system
- Broad levels of hypothesis generation during early subjective examination and development of hypothesizes about contributing factors, precautions, contraindications, and management
- Advanced skills in pattern recognition which drive:
 - Expert prioritization of differential diagnosis and systematic assessment to rule in/rule out hypotheses
 - Efficient processes to control reasoning in dealing with complex patients with multiple comorbidities
 - Expert exam-planning based on appropriate interpretation of subjective examination, including system screening, assessment of pain, sensitivity, and irritability
 - Flexibility and openness in the analytic process using metacognition to respond appropriately to emerging data and changing patient status.
 - Collaborative reasoning which involves the patient in the patient-centered care process
 - Evolving understanding of patient presentation and identifying underlying mechanisms, contributing to patient problem(s).
 - Efficient and effective use of algorithms with the ability to avoid (or at least minimize) clinical reasoning errors

C. Patient Management

Examination

1. History: a systematic gathering of data from both the past and the present related to why the patient/client is seeking the services of the physical therapist.

- Patient chief complaint(s) including description of symptoms (e.g., 24-hour behavior, aggravating/easing factors, body chart, onset, pain level)
- Medical history (e.g., comorbidities, surgical history, family/genetic history, medications/supplements)
- Prior diagnostic testing (e.g., consults, imaging, labs, neurological testing)
- Previous intervention(s) and response
- Prior level of function including level of physical fitness and leisure activities
- Psychological function (e.g., memory, reasoning ability, anxiety, depression, morale, and fear avoidance beliefs)
- Societal role(s) (e.g., worker, student, spouse, grandparent)
- Environmental, social, and economic factors (e.g., physical environment, education, economic stability, social support)
- Health behaviors (e.g., nutrition, physical activity, tobacco use, alcohol use, sleep habits, social habits)
- Patient goals for treatment

2. Systems Review: a brief or limited examination of the anatomical and physiological status of the cardiovascular/pulmonary, integumentary, musculoskeletal, and neuromuscular systems, and the communication, affect, cognition, language and learning style of the patient/client

- Multisystem review (e.g., cardiovascular, pulmonary, integumentary, lymphatic, neurological, urogenital, gastrointestinal)
- Psychological assessment including depression and suicide screening.
- Assessment of communication affect, cognition, language, and learning style of patient/client.
- Early recognition and management of suspected conditions necessitating referral
- Prioritization of relevant screening procedures based on health condition, previous tests and interventions, patient history, and observation
- Appropriate documentation and communication of systems review results as indicated

3. Tests and Measures

- Anthropometric measures (e.g., BMI, weight, height, waist circumference)
- Arousal, Attention, and Cognition (e.g., arousal and awareness scales, ability to process commands, communication and language barriers, level of consciousness, motivation, and capacity to participate in intervention, orientation to person, place, time, and situation, and recall ability).
- Circulation (e.g., arterial, venous, lymphatic)

- Cardiovascular signs including heart rate, rhythm, and sounds; pressures and flow; and superficial vascular responses (e.g., auscultation, electrocardiography, girth measurement, observations, palpation, sphygmomanometry, ankle/brachial index, perceived exertion scales)
- Cardiovascular symptoms (e.g., angina, claudication)
- Differentiation of peripheral edema (e.g., vascular insufficiency, cardiac associated edema, lymphedema)
- Physiological responses to position change (e.g., autonomic responses, central and peripheral pressures, heart rate and rhythm, respiratory rate, and rhythm, and ventilatory pattern)
- Diagnostic testing (e.g., laboratory tests, imaging, ultrasound and electrophysiologic testing)
- Dynamic assessment with and without the use of assistive, adaptive, orthotic, or other devices/equipment
 - Activities of daily living performance
 - Balance (e.g., vestibular, proprioceptive, visual)
 - Coordination
 - Gait & locomotion (e.g., functional performance tests such as gait speed, gait indexes, 6-min walk, Timed Up-and-Go)
 - Motor function (e.g., assessment of motor learning and motor control)
 - Movement analysis (e.g., real time observation, video, technology)
 - Safety assessment (e.g., falls risk assessment, ergonomics)
- Illness behavior assessment (e.g. Screen Assist, Keele STarT Back Screening Tool, depression screen)
- Integumentary assessment (e.g., signs of inflammation, soft tissue swelling/inflammation/infection, wounds, skin cancer screening)
- Joint integrity (e.g., joint mobility assessment to include active and passive range of motion, passive accessory motions, response to manual provocation)
- Lymphatic system function (e.g., girth and volume measurements, palpation, observation of skin texture)
- Musculoskeletal assessment (e.g., muscle performance, endurance, strength, power, muscle tone, fracture screening)
- Neurologic assessment
 - Cranial nerve integrity
 - Neuromechanical assessment (e.g., nerve mobility/neurodynamics)
 - Neuromotor development and sensory integration (e.g., assessment of age-appropriate development, dexterity, coordination, and integration of somatosensory, visual, and vestibular systems)
 - Neuromotor screen (e.g., upper and lower motor neuron screens including tests such as Babinski and Hoffman's)
 - Reflex integrity (e.g., including normal and pathological reflexes)
 - Sensory integrity (e.g., assessment of superficial sensation, dermatomes, myotomes, proprioception, and kinesthesia)
- Observation (e.g., posture, deformity, symmetry, affect, transfers, and motor control)
- Orthotic, protective, prosthetic, and supportive devices (e.g., assessment of appropriateness, use, remediation of impairment, alignment and fit, safety).

- Pain (e.g., assessment using questionnaires, behavioral scales, visual analog scales, and prioritizing exam procedures according to localized vs widespread pain and sensitivity)
 - Palpation (e.g., edema, bony landmarks, muscles, tendons, ligaments, presence of abnormal tissue examination such as masses or deformities, symptom manifestation/modification)
 - Pulmonary assessment (e.g., breath sounds/rate, nail clubbing, lung auscultation)
 - Soft tissue assessment (e.g., myofascial mobility, pain pressure threshold)
 - Special tests specific to working diagnosis are appropriately sequenced and prioritized with acceptable psychometric properties
 - Vestibular assessment (e.g., BPPV tests, vestibulo-ocular reflex, oculomotor function, HINTS exam, Dizziness Handicap Inventory)
4. Re-examination: Ongoing assessment and reassessment throughout the continuum of care

Evaluation

- Interpreting and integrating data from the examination (considering patient/client goals, stage/irritability of condition, personal and environmental factors) across the ICF domains to determine a diagnosis, prognosis, and plan of care
- Integrating findings from other health care professionals and ancillary testing (e.g., imaging, labs, electrophysiological studies, pulmonary function test results)
- Identifying current, emerging, or potential “yellow” and/or “red flags” which may warrant caution throughout client management, medical referral, or both
- Triaging patients as first contact providers at an advanced competency level
- Linking examination findings to patient/client activity, quality of life, and wellness as established by the ICF
- Determining risk stratification (e.g., risk for chronicity or poor outcome, risk for delayed return to activity/work, suicide risk, depression)

Diagnosis

- Conducting rapid differential diagnosis and triage of emergent versus non-emergent health conditions
- Continuously refining the working hypothesis (e.g., primary hypothesis, competing hypotheses, complicating factors such as co-morbidity and economic/social factors)
- Using advanced pattern recognition to differentially diagnose by efficiently organizing examination data into recognized clusters or categories
- Avoiding common diagnostic reasoning errors such as anchoring, confirmation bias, and other sources of medical error

Prognosis

- Establishing a prognosis, including the predicted optimal level of improvement in function and the amount of time needed to reach that level
- Selecting plan of care to include referral to another health care professional, physical therapy intervention, or further examination
- Developing a plan of care that prioritizes and links interventions to the working hypothesis and patient/client goals
- Responding to emerging data from examinations and interventions:
 - Assessing response to intervention (changes in signs and symptoms; new symptoms; changes in tissue response, mobility, and function)
 - Interpreting the significance of changes in signs and symptoms as they relate to the plan of care, and modifying/redirecting examination and interventions accordingly (determine relationship between expected result and actual result, cause of change, relevance of change)

Intervention

1. Coordination, Communication, Documentation

- Communicating effectively with patients/clients, family members, caregivers, practitioners, consumers, payers, and policy makers about health issues
- Discussing rationale for physical therapy examination and intervention procedures, including use of current best evidence, with patients/clients, peer professionals, and payers
- Collaborating as a healthcare team member and leader to ensure that physical therapy is a part of an appropriate, culturally competent, comprehensive plan for care
- Adapting communication to patient/client needs (e.g., educational/cognitive level, psychosocial needs)
- Completing thorough documentation following guidelines and specific documentation formats required by the practice setting (e.g., communication with payer sources for maximizing treatment services and resources, legal protection of staff, patient, and/or facility)

2. Patient and Client Instruction

- Providing instruction about diagnosis, prognosis, intervention strategies, responsibility/self-management within the plan of care
- Developing mutually acceptable goals
- Using biopsychosocial and biomedical models
- Applying pain physiology and dose response
- Providing instruction on disease prevention and wellness
- Integrating behavior modification and cognitive-behavioral approaches (mental)
- Planning for end of episode of care

3. Procedural Interventions

- Airway clearance techniques (e.g., breathing strategies, manual/mechanical techniques, and positioning)

- Body mechanics training and ergonomic modification counseling
- Functional training in self-care and in domestic, education, work, community, social, and civic life (e.g., ADL and IADL training, environmental modification recommendations to optimize independence, task-specific functional training, cues and adjustments of faulty biomechanics)
- Gait training (general, with assistive devices, and with technology)
- Graded exposure/ graded activity
- Integumentary repair and protection techniques (e.g., managing positioning/postures, orthotic selection, protective and supportive device recommendations, debridement, wound therapy, dressings, and modalities)
- Manual therapy (e.g., soft tissue mobilization, joint mobilization/manipulation, dry needling, lymphatic drainage, visceral therapy)
- Neurological therapy treatment (e.g., task specific neuromuscular reeducation, balance activities, gait training)
- Plan specific type and dosage of home/independent exercise/treatment programs, identifying indications/ contraindications
- Prescription, application and/or fabrication of protective, adaptive, or supportive device or equipment (e.g., orthotics, braces, serial casting, wheelchairs, kinesiotaping)
- Prevention, Wellness, and Health Promotion Services
 - Providing culturally appropriate physical therapy services for prevention, health promotion, and fitness and wellness programs to individuals, groups, and communities
 - Promoting health and quality of life for patients/clients by providing information on health promotion, fitness, wellness, disease, impairment, functional limitations, disability, injury prevention, secondary prevention in chronic disease, disability managements and health risks related to age, gender, culture, and lifestyle
 - Providing education, behavior strategies, referral opportunities, and identification of supportive resources for adherence to health care recommendations (e.g., stress management, weight management, nutritional strategies, sleep health, alcohol moderation, substance-free and violence-free living)
- Proprioception training (e.g., repositioning, balance, agility)
- Therapeutic exercise (e.g., aerobic capacity and endurance, motor control and coordination, muscle strengthening and endurance)
- Vestibular training (e.g., canalith repositioning maneuvers, gaze stabilization exercises)

Outcomes

- Assessing remediation of activity and participation limitations, optimization of patient satisfaction, and promotion of primary and secondary prevention.
- Choosing appropriate assessment measures to determine initial and long-term responses to intervention.

- Using applicable, evidence-based outcomes measurement tools/questionnaires/scales (e.g., STarT BACK, Lower Extremity Functional Scale, Timed Up and Go, 6-minute walk test)
- Determine attainment of agreed-upon functional goal(s) and level of patient/client satisfaction
- Assessing efficacy of resources used to achieve patient outcomes

Referral/Consultation

- Efficiently recognizing signs and symptoms necessitating urgent referral to physician or emergency medical care
- Referring and/or consulting with other professionals for further examination as appropriate, based on systems review and medical screening
- Referring for needs beyond the scope of physical therapy practice
- Collaborating and coordinating patient management throughout the continuum of care

III. Organization and Application of Advanced Specialty Knowledge and Skills to Practice

Introduction

This section uses case scenarios to link practice expectations to knowledge areas. Each scenario explains how a primary care clinical specialist might use specific knowledge, skills, and experience to manage the patient or client case.

The cases and references are presented as examples only, and they are not intended to be all-inclusive. Sample examination questions with a rationale for the correct answers follow each case. The questions were not written to emphasize specific content but rather to provide guidance regarding the integration of knowledge, clinical experience, and scientific evidence expected of the primary care clinical specialists.

Residency programs may include these case reflections to assess resident knowledge at the start and end of the program to evaluate resident knowledge.

The terminology used in the scenarios includes the patient/client management model in [Guide to Physical Therapist Practice 3.0](#) and the International Classification of Functioning, Disability, and Health (ICF) model. Familiarity with these models will be helpful when reading each of the cases.

Case Scenario 1

A 60-year-old male patient presents direct access for high severity right rib and thoracic pain. Symptoms presented one month earlier without apparent injury but sought medical attention due to gradual worsening nature. He is currently experiencing waves of 'spasms' intermittently throughout the day. Symptoms are generally worse in the early afternoon and evening. Any movement, though particularly forward flexion and deep breaths increase symptoms. Pain is most intense around the axilla and associated ribs. He reports increased alcohol intake to reduce pain. He has irregular visits to his Primary Care Physician, most recently two months ago. Urodynamics completed and revealed >1000 ng/ml ethyl glucuronide (EtG) and ethyl sulfate (EtS). Blood lab results revealed an A1C of 6%, but high levels of direct/total bilirubin and gamma-glutamyl transpeptidase (GGTP).

Past medical history includes depression, alcohol abuse, macrocytosis, hypertension, fatty liver disease, diabetes mellitus (type II). Hospitalized seven years earlier for pancreatitis. Long term low-dose opioid user for chronic lower back pain, which is stable. History of asbestos exposure, but stable 5 mm nodule on lung CT completed two months ago. He indicates going to an emergency department the day earlier where he was prescribed topicals, which have not helped, and was encouraged to visit a physical therapist.

- Question 1:** Subjectively, what question would be the most useful in ruling up or down a differential diagnosis?
- E. Symptom intensity change after meals
 - F. Specific volume of alcohol consumption
 - G. Breathing changes
 - H. Bowel and bladder changes

The correct answer is A.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy & Physiology
 - Cardiovascular and pulmonary
 - Musculoskeletal
 - Genitourinary
 - Immunologic
 - Gastrointestinal
 - Endocrine

Clinical Sciences

- Pathology
 - Signs and symptoms of disease/injury
 - Disease/Injury process and progression
- Medical and Surgical Considerations
 - Medical Screening
 - Laboratory Science
 - Screening of lab values
 - Integrating results with clinical examination data
 - Practice Considerations
 - Systems-Based Practice
 - Models of differential diagnosis and clinical reasoning

There are no overt red flags precluding physical therapy evaluation or treatment, but many concerning features which warrant close evaluation. Current alcohol consumption is important, but provided recent lab markers already indicate heavy alcohol use and past medical history would suggest abuse². Breathing changes such as new shortness of breath, questions about hypoxia, and pain associated with breathing are also useful to assess. However, this is a less likely differential based on his pain location and stable lung CT scan. Bowel and bladder referred pain is a significantly less likely differential based on symptom location and lack of relevant associated past medical history. Cyclic pain association with meals may implicate hepatobiliary involvement, which would raise the clinical likelihood of hepatic and/or biliary referred pain¹. This makes option A the best answer.

References

3. Johnson CD. ABC of the upper gastrointestinal tract. Upper abdominal pain: Gall bladder. *BMJ*. 2001;323(7322):1170-1173. doi:10.1136/bmj.323.7322.1170
4. Subhani M, Sheth A, Ahmad B, Ryder S. How to interpret and manage abnormal liver blood test results in older people. *Br J Hosp Med (Lond)*. 2021 Aug 2;82(8):1-8. doi: 10.12968/hmed.2021.0114. Epub 2021 Aug 4. PMID: 34431345.

Question 2: Which of the following assessments is most suggestive of visceral referred pain with this patient?

- E. Abdominal percussion
- F. Chest/rib x-rays
- G. Murphy's Sign
- H. Chest/rib x-rays

The correct answer is C.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy & Physiology
 - Cardiovascular and pulmonary
 - Musculoskeletal
 - Gastrointestinal
- Movement Sciences
 - Effects of movement dysfunctions on multiple body systems

Clinical Sciences

- Pathology
 - Signs and symptoms of disease/injury
 - Disease/Injury process and progression
- Medical and Surgical Considerations
 - Medical Screening
 - Imaging Studies
 - Appropriateness criteria for ordering imaging
 - Integrating results with clinical examination data

Clinical Reasoning

- Resource efficiency specific to the patient as well as the patient's health care system
- Broad levels of hypothesis generation
- Advanced skills in pattern recognition

Familiarity with abdominal palpation, medical screening, basic gastroenterology, radiology, and orthopedic assessment is necessary to answer this question. X-ray imaging is better for assessing bony injuries and has poor utility with most soft tissues³. It could be used to evaluate the lungs. However, the CT performed 2 months earlier is more accurate and except in the case of a rare and highly aggressive lesion, would likely be unrevealing if performed again. Though AROM patterns are reported in the literature in cases of visceral referred pain⁵, many pain sources may also present similarly. Thoracic AROM is not significant enough alone to rule in or rule out visceral pain. Abdominal percussion is used to determine the size and density of structures and organs in the abdominal cavity, to assess the presence of fluid or air, and pain reproduction. This would be useful in corroborating possible ascites and potentially enlarged liver, but is unlikely to reproduce symptoms that might help confirm the diagnosis. While abdominal percussion includes liver/gallbladder percussion, Murphy's sign is a test which

suggests cholecystitis and causes a moderate shift in probability^{1,2,4,6} making this the best option. With this, the patient takes a deep breath and holds while the clinician palpates the R subcostal area. The test is positive if pain is experienced on inspiration, as the gallbladder comes into contact with the clinician's hand.

References:

7. Adedeji OA, McAdam WA. Murphy's sign, acute cholecystitis and elderly people. *J R Coll Surg Edinb*. 1996 Apr;41(2):88-9. PMID: 8632396.
8. Jain A, Mehta N, Secko M, Schechter J, Papanagnou D, Pandya S, Sinert R. History, Physical Examination, Laboratory Testing, and Emergency Department Ultrasonography for the Diagnosis of Acute Cholecystitis. *Acad Emerg Med*. 2017 Mar;24(3):281-297. doi: 10.1111/acem.13132. PMID: 27862628.
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11. Pacheco-Carroza EA. Visceral pain, mechanisms, and implications in musculoskeletal clinical practice. *Med Hypotheses*. 2021 Aug; 153:110624. doi: 10.1016/j.mehy.2021.110624. Epub 2021 Jun 6. PMID: 34126503.
12. Singer AJ, McCracken G, Henry MC, Thode HC Jr, Cabahug CJ. Correlation among clinical, laboratory, and hepatobiliary scanning findings in patients with suspected acute cholecystitis. *Ann Emerg Med*. 1996 Sep;28(3):267-72. doi: 10.1016/s0196-0644(96)70024-0. PMID: 8780468.

- Question 3:** Assuming your abdominal and visceral screening is negative for reproduction of symptoms, would it be most appropriate to:
- D. Treat
 - E. Treat and Refer
 - F. Refer

Correct answer is B.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy & Physiology
 - Cardiovascular and pulmonary
 - Musculoskeletal
 - Gastrointestinal

Behavioral Sciences

- Health Promotion and Disease Prevention
 - Impact of health behaviors on general health, disease risk, and prognosis for specific conditions across the lifespan

- Principles of prevention and wellness

Clinical Sciences

- Pathology
 - Signs and symptoms of disease/injury
 - Disease/Injury process and progression
- Medical and Surgical Considerations
 - Medical Screening
 - Laboratory Science
 - Integrating results with clinical examination data
 - Diagnostic tests and measures
- Practice Considerations
 - Systems-Based Practice
 - Collaboration and coordination throughout the continuum of care

Clinical Reasoning

- Resource efficiency specific to the patient as well as the patient's health care system
- Advanced skills in pattern recognition

Referral/Consultation

- Referring and/or consulting with other professionals for further examination as appropriate, based on systems review and medical screening
- Referring for needs beyond the scope of physical therapy practice

In this scenario, many factors raise concern for non-musculoskeletal differential diagnoses; worsening nature, alcoholism, likelihood for past/current chronic liver disease. However, no clinical feature precludes physical therapy intervention. Additionally, it could also be useful to assess change through the treatment course and to help provide more collaborative care with other care team members. Thus, option B to Treat and refer is the best selection.

Physical therapists are uniquely poised for wellness and whole-health medicine considering the time and rapport developed with patients¹. In this case, it could be beneficial to discuss excessive alcohol consumption and provide resources if he is receptive to reducing his intake. If symptoms don't respond to physical therapy intervention, or if red-flag symptoms occur it could also be helpful to collaborate with the rest of the patient's care team. Referring the patient to a primary care physician, or internist would be helpful in attempting to reasonably rule out visceral causes of the patient's symptoms. However, choosing to refer and not treat would delay appropriate care for this patient, assuming his symptoms are musculoskeletal. In conclusion, the patient has several non-musculoskeletal concerns which warrant attention. Providing focused physical therapy treatment, but ignoring the patient's depression, alcohol abuse, and potentially liver disease would be a detriment to this patient. Primary care physical therapists should provide a multifaceted whole-health approach.

Reference:

1. Boissonnault B, Vanwye W. Primary Care for the Physical Therapist: Examination and Triage. 3rd Ed. Elsevier; 2020.

Case Scenario 2

A 45-year-old female arrives at your primary care physical therapy clinic as a self-referral. She reports a one-month history of urinary leakage with jumping and running, and right hip pain of several weeks duration which is aggravated with deep squats. She denies clicking, locking, or snapping at the right hip though reports that the hip feels tight. Her past medical history is significant for cervical cancer with hysterectomy when 41 years old, no other reported treatment. She indicates having started a high intensity impact exercise program eight weeks ago attending five times per week of 60 minutes duration. She reports the ability to stop the flow of urine midstream and no other incidence of urinary incontinence except during her exercise classes. During the initial evaluation, there is weakness at the gluteus medius and transverse abdominus. An internal pelvic floor assessment is not completed due to patient request to forgo that aspect of testing. She is tender at the right iliopsoas (abdominal and anterior hip) with a positive FABER, FADIR, and decreased mobility of the iliopsoas. Her symptoms are also provoked with passive and active hip flexion and internal rotation. Sacroiliac joint and lumbar testing do not provoke the right hip pain.

- Question 1:** Which of the following types of incontinence is the most likely diagnosis?
- A. Urge incontinence
 - B. Stress incontinence
 - C. Mixed incontinence
 - D. Functional incontinence

The correct answer is B.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy and Physiology:
 - Musculoskeletal
 - Genitourinary
- Movements Sciences
 - Effects of movement dysfunctions on multiple body systems, including immediate and long-term

Clinical Sciences

- Pathology
 - Signs and symptoms of disease/injury

Clinical Reasoning

- Advanced skills in pattern recognition

Examination

- History
 - Medical history
 - Prior level of function

This patient reports urine loss during episodes of jumping and running exercises. The answer lies in the specialty knowledge and understanding that this is a classic symptom of stress

incontinence. The impact of exercise and incidence of urinary incontinence has been studied with results suggesting that there may be a decrease in the muscle strength and reduced support to the pelvic floor creating a supportive dysfunction during episodes of increased intra-abdominal pressure. High impact exercise may further contribute to supportive dysfunction and the incidence of urinary incontinence. There are no other symptoms representing the other types of incontinence.

References:

1. Bo K, Borgen JS. Prevalence of stress and urge urinary incontinence in elite athletes and controls. *Med Sci Sports Ex.* 2001; 33 (11); 1797-1802.
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3. Figuers CC, Boyle KL, Caprio KM, Weidney AC. Pelvic floor muscle activity and urinary incontinence in weight-bearing female athletes vs. non-athletes. *JWHPT.* 2008; 32: 7-11
4. The Gynecological Manual from the Section on Women's Health, APTA, 2000, pgs: 379-381.

Question 2: The anterior right hip pain, provoked by hip flexion and internal rotation, decreased hip extension mobility, and with the noted positive special tests, is consistent with which hip dysfunction?

- E. Labral tear
- F. Quadricep muscle strain
- G. Femoral acetabular impingement (FAI)
- H. Gluteus Medius muscle strain

The correct answer is C.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy and Physiology
 - Musculoskeletal
- Movements Sciences
 - Kinesiology/clinical biomechanics

Clinical Sciences

- Pathology
 - Signs and symptoms of disease/injury

Critical Inquiry Principles and Methods

- Critical appraisal and application of research findings in Primary Care Physical Therapy

Professional Roles, Responsibilities and Values of Primary Care Clinical Specialists

- Evidenced Based Practice

Clinical Reasoning

- Advanced skills in pattern recognition which drive:
 - Expert prioritization of differential diagnosis and systematic assessment to rule in/rule out hypotheses.

- Evolving understanding of patient presentation and identifying underlying mechanisms, contributing to patient problem(s).

Examination

- History
 - Patient major complaints
 - Medical history
- Tests and Measures
 - Joint integrity (e.g., joint mobility assessment or include active and passive range of motion, passive accessory motions, response to manual provocation)
 - Musculoskeletal assessment (e.g., muscle performance, endurance, strength, power, muscle tone, fracture screening)

Evaluation

- Interpreting and integrating data from examination including results of outcome measures across the ICF domains to determine diagnosis, prognosis, interventions, outcomes, and referral/consultation

This patient reports pain during dynamic movements, pain during strength testing, and positive special tests at the hip. Irritability and pain with ROM (flexion, internal rotation) and strength testing combined with positive special tests at the hip without presence of clicking, snapping, or locking, and with pain located in the anterior hip/pelvis is consistent with a FAI.

References:

1. Enseki K, Harris-Hayes M, White DM, Cibulka MT, Woehrlé J, Fagerson TL, Clohisey C. Nonarthritic hip joint pain. Clinical practice guidelines linked to the International Classification of Functioning, Disability and Health from the Orthopaedic Section of the American Physical Therapy Association. *J Orthop Sports Phys Ther.* 2014; 44 (6): A1 – A32.
2. Montenegro MLLS, Vasconcelos ECLM, Candido Dos Reis FJ Nogueira AA, Poli-Neto OB. Physical therapy in the management of women with chronic pelvic pain. *Int J Clin Prac.* 2008; 62 (2): 263-269.
3. Travell JG, Simons DG. *Myofascial Pain and Dysfunction: The Trigger Point Manual. The Lower Extremities.* Baltimore, Md: Williams & Wilkins: 1992.

Question 3: What is the most appropriate initial plan of care?

- A. Treat: initiate treatment for incontinence and FAI.
- B. Refer: refer back to primary care provider for further work-up.
- C. Treat and refer: initiate treatment for incontinence and FAI, communicate findings to gynecologic-oncology provider, and recommend baseline FAI imaging.
- D. Additional exam information is needed before proceeding.

The correct answer is C.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human anatomy and physiology
 - Musculoskeletal

- Genitourinary

Clinical Sciences

- Pathology
 - Signs/symptoms of disease/injury
- Medical and Surgical Considerations
 - Imaging Studies
 - Appropriateness criteria for ordering imaging

Professional Roles, Responsibilities and Values of Primary Care Clinical Specialists

- Communication
 - Effectively and efficiently communicating findings to the patient/client and health care team

Evaluation

- Identifying current, emerging, or potential yellow and/or red flags which may warrant caution
- Triage patients as first contact providers at an advanced competency level
- Determining risk factor stratification

Prognosis

- Selecting plan of care to include referral to another health care professional, physical therapy intervention, or further examination

Referral/Consultation

- Collaborating and coordinating patient management throughout the continuum of care

The primary care clinical specialist must have advanced knowledge in systems screening and the clinical relevance of risk factors and red flags. The specialist must recognize that personal history of cancer is the number one predictor of active cancer; and that younger cancer is often more aggressive. This case warrants, at minimum, collaboration, and communication with the gynecologic-oncology provider due to personal prior cancer at age 41. The primary care clinical specialist must also have broad system knowledge beyond musculoskeletal, to include genitourinary, to be able to establish and initiate a plan of care and physical therapy interventions. It would be appropriate to initiate treatment for incontinence and FAI, while concurrently communicating back to the gynecologic-oncology provider and facilitating baseline imaging for suspected FAI.

References:

1. Schmaranzer, F., Kheterpal, A. B., & Bredella, M. A. (2021). Best Practices: Hip Femoroacetabular Impingement. *AJR. American journal of roentgenology*, 216(3), 585–598.
2. Verhagen AP, Downie A, Maher CG, Koes BW. Most red flags for malignancy in low back pain guidelines lack empirical support: a systematic review. *Pain*. 2017 Oct;158(10):1860-1868. doi: 10.1097/j.pain.0000000000000998. PMID: 28708761.

Question 4: The patient modifies her high intensity exercise program and her daily activities as recommended and begins a home exercise program to strengthen the involved muscles. She has been attending physical therapy 1x/week for 6 weeks and reports significant reduced urinary incontinence.

Although she has been compliant, she reports continued right hip pain with minimal change in status. The appropriate next step is which of the following?

- E. Progress with trunk, hip, and pelvic strengthening
- F. Pause treatment, encourage rest including refrain from exercise with return to the clinic in 2 weeks to re-evaluate
- G. Review lack of progress with gynecologic-oncology provider, and collaborate with a hip preservation specialist to consider next steps
- H. Continue with the current plan of care with addition of stretching exercises to her home program

The correct answer is C.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy & Physiology
 - Genitourinary
 - Musculoskeletal

Clinical Sciences

- Pathology
 - Tissue inflammation, healing, response to exercise, and repair
- Medical and Surgical Considerations
 - Imaging studies: appropriateness criteria for ordering imaging

Professional Roles, Responsibilities, and Values of Primary Care Clinical Specialists

- Communication
 - Effectively and efficiently communicating findings to the patient/client and health care team

Re-examination

- Ongoing assessment and reassessment throughout the continuum of care

Evaluation

- Identifying current, emerging, or potential yellow or red flags which may warrant caution throughout client management, medical referral, or both

Prognosis

- Responding to emerging data from examinations and interventions
 - Assessing response to intervention
 - Interpreting the significance of change in signs and symptoms as they relate to the plan of care, and modifying/redirecting examination and interventions accordingly

Referral/Consultation

- Referring and/or consulting with other professionals for further examination as appropriate
- Collaborating and coordinating patient management throughout the continuum of care.

Following six weeks of therapeutic interventions including patient participation with the home program with no reported symptomatic improvement of the right hip pain, the most appropriate next course of action is reviewing the case with the gynecologic oncology provider for their opinion based on prior history of cancer and collaborating with a hip preservation specialist to

determine next steps in management of FAI (e.g., possibly injections vs. surgery based on patient factors). A primary care clinical specialist does not refer back for further work-up without clear communication and recommendations, but rather continues to collaborate and guide the team in comprehensive patient management. This includes using advanced knowledge and skill to clearly communicate indicated imaging studies (and specific views) for suspected pathology. In this case, the primary care clinical specialist would communicate recommendations for A/P pelvis, 45deg Dunn views, and false profile views for further FAI work-up. Some may have the ability to order directly, while others will need to communicate and recommend through another health care provider.

Reference:

1. Goodman, Catherine C., Snyder, Teresa, E. *Differential Diagnosis for Physical Therapists Screening for Referral*. St. Louis, MO: Saunders, Elsevier: 2007; pgs 26, 31 100-102, 610, 611, 765, 766.

Case Scenario 3

You are a physical therapist embedded in the primary care team consisting of a primary care provider, RN, and an LPN in an outpatient clinic. A 64-year-old male patient presents to the primary care physical therapy clinic with a chief complaint of left shoulder pain. His symptoms started insidiously one month ago. He has increased pain with overhead movement and relief of symptoms with his arm resting on his stomach. He has noticed a progressive increase in symptoms when he reaches out to the side and when reaching behind his back to put on his jacket. He is concerned about his health, as he takes care of his 3-year-old and 1-year-old adopted daughters.

- Question1:** What additional questions are appropriate to avoid cognitive bias and provide a more complete history of the patient's overall health?
- F. What is the patient's pack-year history?
 - G. Has the patient had any recent shoulder surgeries?
 - H. How does the patient describe his pain?
 - I. Does the patient have neck pain or limitations?
 - J. A and D

The correct answer is E.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy & Physiology
 - Musculoskeletal
 - Cardiovascular and pulmonary

- Lymphatic
- Gastrointestinal

Examination

- History
- Systems Review

To answer this question, a primary care clinical specialist must be aware of past medical history beyond musculoskeletal systems. A thorough medical history needs to be taken with a broad range of differential diagnoses in mind, with an end treatment plan in mind to include referral to a specialist, and which specialist should be recommended to the primary care provider.

The beginning portion of the case indicates the patient has a musculoskeletal shoulder injury. To avoid cognitive biases, it is important to understand that left shoulder pain may be indicative of a referred pain pattern of cardiac or other visceral organs. Recent shoulder surgery is important, however, may contribute to a confirmation bias with less consideration for an additional hypothesis. The description of the patient's pain may be helpful in determining the nature of his injury, however, does not provide information to complete a thorough history and other questions should be prioritized in the system review process to rule up or down other body systems.

References:

1. Croskerry P, Singhal G, Mamede S. Cognitive debiasing 2: impediments to and strategies for change *BMJ Quality & Safety* 2013;22: ii65-ii72.

Question 2: He has an additional history of smoking (30 packs per year), chronic pain, lung surgery, and COVID-19 four months ago. He denies pain at rest. However, he does have difficulty getting comfortable at night due to pain. He denies unexplained weight loss, fever, chills, headaches, numbness, tingling, or bowel and bladder changes. Given the additional information and patient's subjective report, what system is the highest priority and requires further subjective review?

- E. Musculoskeletal
- F. Cardiopulmonary
- G. Central Nervous system
- H. All the above

The correct answer is B.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human Anatomy & Physiology
 - Musculoskeletal
 - Cardiovascular and pulmonary
 - Lymphatic
 - Gastrointestinal
- Medical and Surgical Considerations

- Medical Screening
- Clinical reasoning
 - Advanced skill in pattern recognition
 - Expert prioritization of differential diagnosis and systematic assessment to rule in/out hypotheses
 - Practice Considerations
 - Systems-based practice

Examination

- History
- Systems Review

To answer this question, the primary care physical therapist needs to be aware of additional systems that are involved with the area of complaint and referred pain patterns associated with chief complaint. Information from a complete medical history should be used to formulate an appropriate priority list to guide the examination process.

References:

1. Severin R, Wang E, Wielechowski A, Phillips SA. Outpatient Physical Therapist Attitudes Toward and Behaviors in Cardiovascular Disease Screening: A National Survey. *Phys Ther.* 2019 Jul 1;99(7):833-848. doi: 10.1093/ptj/pzz042. Erratum in: *Phys Ther.* 2020 Apr 17;100(4):739. PMID: 30883642; PMCID: PMC6602156.

- Question 3:** Considering the answer to question 2, what is the first physical examination procedure that will provide you with the greatest amount of information to rule out the system selected above?
- E. Palpation of the soft tissue in the shoulder region
 - F. Active shoulder range of motion
 - G. Heart rate, blood pressure, oxygen saturation
 - H. Heart and Lung auscultations

The correct answer is C.

The primary care physical therapist needs to be familiar with the following areas:

Foundation Sciences

- Human anatomy and physiology
 - Musculoskeletal
 - Cardiovascular pulmonary

Clinical sciences

- Pathology
- Medical and Surgical Considerations
 - Medical Screening
- Practice Considerations
 - Systems-based practice

Professional Roles, Responsibilities and Values

- Clinical Reasoning
 - Advanced skill in pattern recognition
 - Efficient and effective use of algorithms

Examination

- Systems Review
 - Prioritization of relevant screening procedures
- Tests and Measures
 - Circulation: cardiovascular signs

Additional information from the subjective report should help the primary care clinical therapist narrow the hypothesis pool down to one system, the cardiopulmonary system. The most basic baseline measures can be taken in the clinic and are helpful in screening for cardiology vascular and cardiopulmonary issues, as well as direct examination to more skilled procedures such as heart and lung auscultations. Musculoskeletal shoulder examination and neurological screening are a low priority at this stage in the examination process.

References:

1. Severin R, Sabbahi A, Albarrati A, Phillips SA, Arena S. Blood Pressure Screening by Outpatient Physical Therapists: A Call to Action and Clinical Recommendations. *Phys Ther.* 2020 Jun 23;100(6):1008-1019. doi: 10.1093/ptj/pzaa034. Erratum in: *Phys Ther.* 2021 Jul 1;101(7): PMID: 32232372; PMCID: PMC7462048.
2. Kotsis, Vasilios and Stabouli, Stella. Clinical overview: Hypertension, Screening and Prevention. Elsevier: ClinicalKey. Sept 9, 2022.

Question 4: The following vital signs were obtained: heart rate 81 beats per minute, blood pressure 209/123, oxygen saturation 98%. Considering these findings, what is the next most appropriate step in your plan of care?

- E. Continue with shoulder examination because blood pressure of 209/123 is considered normal and not a concern for physical therapy.
- F. Call 911 because his blood pressure is dangerously high, as this is a medical emergency and it is your responsibility to determine the next course of treatment.
- G. Discontinued his shoulder examination because blood pressure of 209/123 is abnormal and instruct the patient to call his primary care provider at a later date.
- H. Contact the patient's primary care provider/team immediately and inform them of the patient's vital signs.

The correct answer is D.

To answer this question, the primary care clinical specialist would apply the following concepts from Chapter 2 of the DSP:

Foundation Sciences

- Human anatomy and physiology
 - Cardiovascular pulmonary

Clinical Sciences

- Pathology: signs/symptoms of disease/injury

Professional Roles, Responsibilities and Values of Primary Care Clinical Specialists

- Communication

- Effectively and efficiently communicating findings to the patient/client and health care team

Evaluation

- Identifying current, emerging, or potential yellow and/or red flags which may warrant caution
- Triaging patients as first contact providers at an advanced competency level
- Determining risk factor stratification

Diagnosis

- Conducting rapid differential diagnosis and triage of emergent versus non-emergent health conditions
- Avoiding common diagnostic reasoning errors such as anchoring, confirmation bias, and other sources of medical error

Prognosis

- Selecting plan of care to include referral to another health care professional, physical therapy intervention, or further examination

Referral/Consultation

- Efficiently recognizing signs and symptoms necessitating urgent referral to physician or emergency medical care

The primary care clinical specialist serves as a referral source for other specialists and works as an integrated member of the primary care team. He/she recognizes the value of interdisciplinary treatment and consults/refers appropriately based on examination findings and patient presentation. The primary care clinical specialist recognizes patients on a system level and includes systems review during the examination process to rule out non-musculoskeletal pathologies.

The primary care clinical specialist must be able to recognize and understand the clinical relevance of abnormal vital signs and be able to coordinate and manage treatments with a primary care team. The patient's vital signs are abnormal and guidelines by Severin et al. indicate consulting with the primary care physician. This is the most appropriate action to take as the primary care physical therapist within an integrated primary care team. If the patient were having symptoms with these abnormal vital signs, it would be more appropriate to send the patient to the emergency room.

References:

1. Pains A, Aggiusti C, Bertacchini F, Agabiti Rosei C, Maruelli G, Arnoldi C, Cappellini S, Muiesan ML, Salvetti M. Definitions and Epidemiological Aspects of Hypertensive Urgencies and Emergencies. *High Blood Press Cardiovasc Prev.* 2018 Sep;25(3):241-244. doi: 10.1007/s40292-018-0263-2. Epub 2018 Jun 18. PMID: 29916180.
2. Boissonnault WG, Ross MD. Physical therapists referring patients to physicians: a review of case reports and series. *J Orthop Sports Phys Ther.* 2012 May;42(5):446-54. doi: 10.2519/jospt.2012.3890. Epub 2012 Jan 25. PMID: 22282166.

IV. Content Weighting for Certification Examination and Residency Curriculum Development

Learning Domain	Content Weighting (%)
I. Knowledge for Specialty Practice	24
A. Foundational Sciences	6
B. Behavior Sciences	6
C. Clinical Sciences	6
D. Critical Inquiry, Principles, and Methods	6
II. Professional Roles, Responsibilities, and Values	34
A. Professional Behaviors, Leadership, Social Responsibility, Advocacy	5
B. Education	5
C. Communication and Consultation	6
D. Evidence-Based Practice	7
E. Clinical Reasoning	11
III. Patient/Client Management	42
A. Examination/Evaluation	12
B. Diagnosis/Prognosis	9
C. Interventions	8
D. Outcomes	6
E. Referral/Consultation	7
Total	100%

V. Common Practice Settings of a Physical Therapist Specializing in Primary Care

The clinical curriculum of all accredited residency programs must include a variety of practice settings, as noted below. A resident should experience a minimum of 5% of patient-care practice hours within each setting based on the minimum patient-care practice hours outlined within “ABPTRFE Quality Standards for Clinical Physical Therapist Residency and Fellowship Programs.”

If a residency program is unable to provide each participant with an opportunity to engage in patient care activities within these settings, the program must provide additional learning opportunities (e.g., observation, didactic, journal club, research) related to patient care within these settings for the minimum required hours noted above.

The minimum required practice settings for primary care are:

- Acute care facility
- Hospital emergency department
- Outpatient facility
- Patient’s home/home care

VI. Patient Populations Served by a Physical Therapist Specializing in Primary Care

The clinical curriculum of all accredited residency programs must include a variety of patient populations, as noted below, specific to sex and age. A resident should experience a minimum of 5% of time in each patient population based on the minimum patient-care practice hours outlined within “ABPTRFE Quality Standards for Clinical Physical Therapist Residency and Fellowship Programs.”

If a residency program is unable to provide each resident with an opportunity to engage in patient care activities within these populations, the program must provide additional learning opportunities (e.g., observation, didactic, journal club, research) related to patient care within these populations for the minimum required hours noted above.”

Age:

- Pediatrics (0-21 years of age)
- Adults (22-59 years of age)
- Geriatrics (60 years of age to end of life)

VII. Medical Conditions Seen by a Physical Therapist Specializing in Primary Care

Cardiovascular System		
Condition Seen Frequently	Condition Seen Occasionally	Condition Seen Rarely
Coronary Heart Disease	Arterial Insufficiency	
Hypertensive Heart Disease	Cardiac Arrhythmia / Conduction Disorders	
Hypertension	Cardiac Pacemakers and Defibrillators	
Patients at risk for development of cardiovascular disease or complications	Deep Vein Thrombosis	Aneurysms (aortic, abdominal)
Peripheral Vascular Complications of Diabetes	Heart Failure / Valvular Disease	Dysrhythmias
	Atherosclerotic Disease (coronary atherosclerosis, peripheral arterial occlusive disease, peripheral arterial disease, intermittent claudication)	Venous Stasis (with or without cellulitis)
	Cardiomyopathy	Congenital Heart Defects
	Ischemic Conditions (angina, myocardial infarction, intermediate coronary syndrome)	
Respiratory System		

Condition Seen Frequently	Condition Seen Occasionally	Condition Seen Rarely
Patients at risk for developing pulmonary disease or complications	Chronic Obstructive Pulmonary Disease Chronic Restrictive Lung Disease Pneumonia Acute Upper Respiratory Infection Asthma Emphysema Influenza	Lung Neoplasm
		Pulmonary Embolism
		Pulmonary Hypertension / Cor Pulmonale
		Respiratory Failure
		Acute Respiratory Distress Syndrome
		Pulmonary Artery Hypertension
		Pulmonary Edema
		Pulmonary Effusion
		Pulmonary Fibrosis
		Bronchiectasis
		Bronchitis
		Cystic Fibrosis
		Lung Abscess
		Pulmonary Metastasis
Endocrine System		
Condition Seen Frequently	Condition Seen Occasionally	Condition Seen Rarely
Diabetes	Dehydration	Gastric and Bowel Neoplasm
	Electrolyte Imbalance	Graft vs. Host Disease

		Kidney Cancer Pancreatic Cancer Stomach Cancer Thyroid Cancer
Lymphatic System		
Condition Seen Frequently	Condition Seen Occasionally	Condition Seen Rarely
	Lymphedema	
Integumentary System		
Condition Seen Frequently	Condition Seen Occasionally	Condition Seen Rarely
	Pressure sores Skin tears Soft tissue adhesion Soft tissue contracture	Burns Neuropathic wounds Vascular and lymphatic wounds Melanomas Rash / dermatologic reaction Scleroderma Soft tissue extrusion Soft tissue sarcoma
Nervous System		
Condition Seen Frequently	Condition Seen Occasionally	Condition Seen Rarely
Concussion Vestibular disorders Radiculopathies (cervical and lumbar) Peripheral nerve entrapments (e.g., carpal tunnel syndrome, cubital tunnel syndrome) Peripheral Neuropathy	Alzheimer's Disease Cerebrovascular accident Multiple Sclerosis Neurocognitive disorders Other dementia disease (not Alzheimer's Disease) Parkinson's Disease & Syndromes	Amyotrophic Lateral Sclerosis Brain tumors Central nervous system infections Central nervous system neoplasms (e.g., glioma, lymphoma, meningioma, craniopharyngioma, pituitary tumor)

Gait dysfunctions	Traumatic Brain Injury Brachial Plexopathies Polyneuropathy Spinal cord injury and disorders Hemiparesis Lumbosacral plexopathies Nerve palsies (facial, spinal accessory, long thoracic)	Cerebral disorders (e.g., degenerative cerebellar disorder, cerebellar stroke) Cerebral Palsy Normal Pressure Hydrocephalus Other neuromuscular disorders (e.g., Huntington's Disease, Myasthenia Gravis) Multiple Myeloma Ototoxicity Anoxic events
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Skeletal System

Condition Seen Frequently	Condition Seen Occasionally	Condition Seen Rarely
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Degenerative joint / disc disease		
Spinal stenosis	Compression fracture	Bone metastasis
Kyphosis / scoliosis	Gout / pseudogout	Cording / axillary web syndrome
Fractures / stress fractures	Elbow Instability (e.g., subluxation / dislocation, ligamentous)	Osteonecrosis / avascular necrosis
Osteoarthritis		Osteosarcoma
Osteoporosis / Osteopenia	Temporomandibular joint disorders	Congenital traumatic limb deficiencies
Hallux Valgus	Rib dysfunction	Juvenile idiopathic arthritic diseases
Hip labral pathology	Rheumatoid arthritis	Osteogenesis imperfecta
Spinal spondylosis / spondylolisthesis	Spinal instability	Torticollis / plagiocephaly
Cervicogenic headache	Shoulder adhesive capsulitis	DISH (Diffuse Idiopathic Skeletal Hyperostosis)
Femoroacetabular impingement		Ankylosing spondyloarthropathy
Trochanteric bursitis		
Meniscal pathology		
Patellofemoral dysfunction		

Sacroiliac dysfunction		
Shoulder labral pathology		
Shoulder instability		
Arthralgias		
MSK and sports injuries in children (Osgood Schlatter, overuse injuries, joint injuries, growth plate injuries, limb injuries)		

Muscular System

Condition Seen Frequently	Condition Seen Occasionally	Condition Seen Rarely
Rotator cuff syndromes		
Plantar fasciitis		
Fibromyalgia / Chronic Pain Syndromes		
Myopathy		
Tendinopathies	Sarcopenia / muscle wasting	Polymyalgia Rheumatica
Ligamentous injuries		Steroid myopathy
Spinal sprain or strain		
Piriformis Syndrome		
Musculoskeletal dysfunction and pain with pregnancy / postpartum		

Genitourinary System

Condition Seen Frequently	Condition Seen Occasionally	Condition Seen Rarely
Pelvic floor dysfunction / pain	Urinary tract infection	Bladder Cancer
	Urinary dysfunction (incontinence, retention, urgency)	Cervical Cancer
	Breast Cancer	Ovarian Cancer
		Testicular Cancer

	Prostate Cancer	Uterine Cancer
Involvement of Multiple Systems		
Condition Seen Frequently	Condition Seen Occasionally	Condition Seen Rarely
<p>Falls</p> <p>Deconditioning</p> <p>Persistent pain</p>	<p>Amputations</p> <p>Cancer-related fatigue</p> <p>Infection</p>	<p>Failure to thrive</p> <p>Lupus</p> <p>Organ transplant</p> <p>Renal failure</p> <p>Sepsis</p> <p>Anemia</p> <p>Colo-rectal cancer</p> <p>Hospice (end of life)</p> <p>Leukemia</p> <p>Neutropenia</p> <p>Palliative Care (end of life)</p> <p>Thrombocytopenia</p> <p>Complications of prematurity (osteopenia, respiratory distress syndrome, intraventricular hemorrhage, bronchopulmonary dysplasia)</p> <p>Complete trisomy 21 (Downs Syndrome)</p> <p>Developmental delay / disabilities</p> <p>Genetic syndromes (e.g., Pradi Willi, Hemophilia)</p> <p>Hematologic conditions</p> <p>Idiopathic toe walking</p>