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Analysis of Practice for the Physical Therapy Profession: Report Memo 2020

Prepared for:	Federation of State Boards of Physical Therapy 124 West Street South Alexandria, VA 22314	Prepared under:	NA
Authors:	Arielle P. Rogers Joseph P. Caramagno	Date:	November 23, 2020

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Background and Executive Summary

This memo summarizes the process and results of the analysis of practice for the physical therapy profession conducted by the Federation of State Boards of Physical Therapy (FSBPT) in partnership with the Human Resources Research Organization (HumRRO) and FSBPT's Exam Committee Chairs. The study documented in this memo was conducted between January and July 2020 and represents the third data collection cycle in the multi-year practice analysis methodology extending to 2022[1].

Annual data collection and analysis enables FSBPT to (a) monitor on-going and emerging trends in entry-level requirements, (b) respond quickly to changes in the profession that necessitate adjustments to the licensure examinations (e.g., removing test questions that assess skill areas of decreasing importance; increasing the numbers of test questions that assess skill areas of increasing importance), and (c) enhance awareness among current and prospective PTs and PTAs of FSBPT's mission, purpose, and the services it provides.

The approach to conduct the analysis of physical therapy practice in 2020 was similar to that taken in 2018 and 2019 (see Caramagno, 2018; Caramagno, Cogswell, & Waugh, 2018a; Caramagno, Cogswell, & Waugh, 2018b; Rogers & Caramagno, 2019).

- In February 2020, FSBPT collected input on existing lists of work activities (WAs) and knowledge and skill requirements (KSRs)—prepared in 2019—from the Exam Committee Chairs.
- HumRRO used this input to prepare an electronic survey to gather ratings of the WAs and KSRs from a large sample of PTs and PTAs across 53 licensing jurisdictions comprising FSBPT's membership. The survey had two sections: a set of questions about the demographic characteristics of the sample and a set of WAs or KSRs that respondents evaluated using a five-point Likert-type *importance* rating scale.
- HumRRO analyzed the response data and compiled the results in summary tables and charts and shared the results with FSBPT and the Exam Committee Chairs.
- FSBPT convened a one-day, web-based meeting on July 16, 2020 with HumRRO and the Exam Committee Chairs to review the results and obtain recommendations for the remaining cycles of the multi-year methodology. The results and recommendations are described in detail in this report.

[1] Due to the COVID-19 pandemic, the NPTE blueprint update for the PT and PTA exams is postponed from 2021 to 2022. In 2021, data collection for the fourth practice analysis cycle will proceed as originally planned. In 2022, an additional cycle of data will be collected in addition to the postponed blueprint update.

Summary of Practice Analysis Survey Changes

During each year of the multi-year practice analysis, FSBPT and HumRRO review prior year activities and results to determine whether adjustments are warranted to enhance the quantity, quality, and usefulness of information obtained during the forthcoming year. For the current iteration of the practice analysis, the work activities (WAs) and knowledge and skill requirements (KSRs) remained largely consistent with the 2018 and 2019 studies. Minor changes/updates were made to the background questionnaire and WA and KSR rating scales. These are detailed below.

Background Questionnaires

- Added a question to the PT survey to assess respondents' involvement in Residency or Fellowship programs leading to the acquisition of specialized knowledge or skill: "Have you completed or are you currently completing a Residency or Fellowship in a specialized area of Physical Therapy?"
    - Yes
    - No
    - [if "Yes" is selected] "Please indicate your Residency or Fellowship specialty training area (e.g., Orthopaedics Residency, Sports Division I Fellowship, etc.):"
- Added a question to the PTA survey to assess respondents' involvement in an Advanced Proficiency Pathway leading to the acquisition of specialized knowledge or skill: "Have you completed or are you currently completing an Advanced Proficiency Pathway through the American Physical Therapy Association?"
    - Yes
    - No
    - [if "Yes" is selected] "Please indicate your Advanced Proficiency Pathway area (e.g., Geriatrics, Pediatrics, Wound Management, etc.):"
- Removed a response option (due to low percentage of endorsement in 2019) from the last question on the PT background questionnaire: "Which of these statements is true regarding your experience supervising PTAs over the past 12 months?"
    - Omitted response option text: "I routinely supervise PTAs but I do NOT have a good understanding of the knowledge and skills they need to provide safe and effective care."

WA and KSR Rating Scales

- Implemented minor wording additions and deletions to clarify the following WAs:
    - "Perform and/or train patient/client/caregiver in manual/mechanical airway clearance techniques (e.g., assistive devices, assistive cough, incentive spirometer, flutter valve, ~~**postural drainage**~~, percussion, vibration)"
        - Inserted a new item: "Perform and/or train patient/client/caregiver in postural drainage"

- "Perform ~~**and/or train patient/client/caregiver in**~~ sharp debridement (e.g., removal of specific areas of devitalized tissue)"
- "Recommend topical agents (e.g., pharmacological to physician, over-the-counter to patient) and advanced wound dressings (e.g., ~~**hydrogels,**~~ negative pressure wound therapy, wound coverings)"
- "Perform and/or train patient/client/caregiver in negative pressure wound therapy **(e.g., vacuum-assisted wound closure)**"

- Added to the PT KSR survey: "Knowledge of the impact of regenerative medicine (e.g., platelet rich plasma, stem cells) on physical therapy prognosis and interventions related to the neuromuscular and nervous systems"

Sample Selection and Administration

- FSBPT selected participant samples from a list of licensure candidates who had passed the National Physical Therapy Exam (NPTE) stratified by exam, year of licensure, and jurisdiction.
- HumRRO conducted a soft launch on April 13, 2020 to test the email campaign programming and survey functionality. The soft launch included approximately 100 invitations for each survey.
- HumRRO sent remaining email invitations starting on April 16, 2020 (i.e., hard launch). Participants and respondents received reminder emails on April 27, 2020 and May 26, 2020.
- The survey closed on June 4, 2020.
- Consistent with the 2019 process, respondents completed either the WA or KSR survey based on their years of professional experience. Individuals with two or fewer years of experience were assigned to the WA survey. Individuals with three or more years of experience completed the KSR survey. The PT KSR survey also incorporated branching logic to redirect respondents who indicated that they routinely supervise PTAs and have a good understanding of the knowledge and skills PTAs need to provide safe and effective care.[2]

Data Cleaning and Screening

- Examined the raw data to identify outliers and unexpected responses.
- Constructed data filters to screen out careless responder data based on psychometric, structural, and substantive considerations including flat, hasty, and missing response patterns, and ineligible employment status.

[2] In prior years, the branching logic was "turned off" during survey administration once an adequate sample of PT KSR participants completed the PTA KSR survey. In 2020, HumRRO programmed two separate PT KSR background questionnaires—one with branching logic and one without branching logic (i.e., questionnaires were the exact same except for the branching logic). FSBPT randomly selected 20% of PT KSR participants to be assigned to the background questionnaire containing the branching logic. This ensured an adequate sample of PT KSR participants completed the PTA KSR survey without needing to adjust any aspects of the survey during administration.

Table 1. Data Quality Screens

Data Screen	PT KSR		PTA KSR		PT WA		PTA WA	
	A	B	A	B	A	B	A	B
Flat Responding	43	47	43	57	25	10	39	7
Hasty Responding	7	8	5	5	8	2	5	2
Missing >90% of responses	103	65	72	36	112	74	65	42
Employment Status								
Retired	3	5	5	9	0	0	1	0
Unemployed and *not* looking for work as a PT or PTA	28	32	39	51	9	6	14	12
Total	174	148	151	140	151	89	114	60

Note. Flat Responding includes individuals who selected the same response value an unreasonably-high number of times in a row. Hasty Responding includes individuals who completed the survey too quickly to have been paying adequate attention to the survey questions. The values in the "Total" row account for overlap across the data screens and identify the absolute number of cases that were excluded (i.e., no double-counting).

Response Rates and Final Analysis Sample

- Table 2 summarizes the response rates for the 2020 practice analysis surveys.
- The "Responded" count is the number of individuals who started the survey and completed at least the background questions.
- The "Usable" count reflects the number of respondents who provided response data of acceptable quality based on the data screens noted above.
- The final analysis sample included data from 5,393 respondents across all survey forms.[3]

Table 2. Survey Distribution and Response Rates

Sample	Invited	Responded			Usable	
		Form A	Form B	Total		
PT KSR	24,026	1,156	1,166	2,322	2,000	(8%)*
PTA KSR	12,870	716	723	1,439	1,148	(9%)*
PT WA	11,052	901	917	1,818	1,578	(14%)
PTA WA	6,823	395	446	841	667	(10%)

Note. * 258 PT KSR respondents were reassigned to the PTA KSR survey based on responses to the background question regarding supervision of PTAs.

[3]The number of respondents by sample is comparable to the 2019 practice analysis sample sizes with the exception of the PTA WA sample which was smaller in 2020 compared to 2019 (*N* = 1,049 usable in 2019 compared to 667 in 2020). During the July 16th Exam Chair meeting, it was noted this may be due to decreases in Medicare reimbursement resulting in PTA job loss without rehire, and/or decreased recruitment of early-career PTAs as a result of increased telemedicine during COVID-19.

Sample Description and Representativeness

HumRRO computed descriptive statistics for the background questionnaire response data to summarize and examine the representativeness of the sample. Below is a summary of the 2020 practice analysis sample on several key variables. The complete set of results of the background questionnaire are presented in Appendix A.

Overall, sample characteristics were comparable to those reported in 2019. The most notable difference was in the percentage of respondents reporting full time employment, particularly for the PTA WA sample. Overall, across all samples, the percentage of respondents reporting active full-time employment decreased; for the PTA WA sample, 80.1% reported active full-time employment in 2019, whereas in 2020, only 67.9% reported active full-time employment. These changes are very likely explained by overall increases in U.S. unemployment rates in 2020 due to the COVID-19 pandemic.

- Respondents tended to be female (64-68%), White (72-78%), and employed full time (68-85%).
- A large proportion of the PT WA respondents (90.1%) and PT KSR respondents (69.9%) possessed Doctor of Physical Therapy degrees (DPT). Individuals in the PTA samples typically reported their highest degree as an Associate's degree (PTA WA: 75.0%; PTA KSR: 61.1%).
- Respondents to the PT WA and PT KSR surveys reported spending at least 50% of their time in private outpatient facilities (26% and 37%, respectively), health system or hospital-based outpatient facilities (23% and 25%), acute care hospital (10% and 10%), home health or home care facilities (4% and 12%), and skilled nursing facilities (7% and 8%).
- A larger portion of respondents to the PTA WA and PTA KSR surveys reported they spend at least 50% of their time working in skilled nursing facilities (21% and 23%, respectively) compared to PTs responding to the PT WA and PT KSR surveys (7% and 8%, respectively).
- A majority of PTs and PTAs (62-72%) reported having only one employment position in the past 12 months.
- A majority of PTs and PTAs (78-86%) reported spending more than three-quarters of their time in direct patient care.

Work Activity and Knowledge and Skill Requirements: Data Analytic Strategy

Analysis of the WA and KSR survey data involved computing descriptive statistics to examine the distribution and magnitude of respondents' ratings and interrater agreement indices to evaluate the degree of agreement and consistency in the response sets. Below is a summary of the analytic strategy.

- For each WA statement, HumRRO computed:
  - Sample size: number of valid responses.
  - Percent Perform ($\%_{Perf}$): Sum of responses for scale points 1 through 5, divided by the total number of usable respondents.

- Percent Important ($\%_{Imp}$): Sum of responses for scale points 2 through 5, divided by the total number of usable respondents.
- Mean Importance (M): Based on responses for scale points 1 through 5. Mean WA importance ratings exclude respondents who selected the option *I have not performed this WA*.
- Standard Deviation of Importance (SD): Based on responses for scale points 1 through 5.

- For each KSR statement, HumRRO computed:
  - Sample size: number of valid responses.
  - Percent Important ($\%_{Imp}$): Sum of responses for scale points 2 through 5, divided by the total number of usable respondents.
  - Mean Importance (M): Based on responses for scale points 1 through 5.
  - Standard Deviation of Importance (SD): Based on responses for scale points 1 through 5.

- For each WA and KSR statement, HumRRO computed differences in importance ratings by work setting:
  - We conducted independent samples *t* tests to examine differences in importance ratings by work setting. Specifically, importance ratings by PTs and PTAs who spent at least 50% of their time working in a particular setting over the past 12 months were compared to ratings by those who spent less than 50% of their time working in that setting.
  - We reported subgroup analyses only for work settings where greater than 30 PTs and/or PTAs reported spending at least 50% of their time. These settings include private outpatient facilities, health system or hospital-based outpatient facilities, acute care hospitals, home health or home care facilities and skilled nursing facilities.

- Two types of intraclass correlation coefficients (ICCs; McGraw & Wong, 1996; Shrout & Fleiss, 1979) were computed to estimate the degree of consistency and agreement among the survey respondents.
  - The single rater estimates can be interpreted as the level of consistency (or agreement) to be expected between the ratings provided by any single rater with any other randomly selected single rater.
  - The Observed estimates indicate the degree of consistency (or agreement) to be expected between the average among the sample of survey participants and the average that would be obtained if another random sample were to be drawn from the population.

Table 3. Estimates of Inter-rater Reliability and Agreement

Survey	Form	Number of Items	Type of ICC			
			Consistency		Agreement	
			1-Rater	Observed	1-Rater	Observed
PT KSR	A	75	0.36	>0.99	0.28	>0.99
	B	77	0.52	>0.99	0.42	>0.99
PTA KSR	A	66	0.27	0.99	0.21	0.99
	B	68	0.46	>0.99	0.35	>0.99
PT WA	A	120	0.39	>0.99	0.33	>0.99
	B	122	0.52	>0.99	0.47	>0.99
PTA WA	A	99	0.28	0.99	0.21	0.98
	B	100	0.46	>0.99	0.39	>0.99

Note. Consistency and agreement ICCs estimated for a single rater (1-Rater) and for the total number of raters (Observed).

Work Activity and Knowledge and Skill Requirements: Results Summary

Descriptive statistics for all PT and PTA WAs and KSRs are presented in Appendix B. Based on the descriptive statistics, HumRRO flagged statements that:

1) fell at, just above, or below a criticality threshold for mean importance,
2) increased or decreased in mean importance by greater than 0.50 from 2016 to 2020, and
3) were of particular interest to FSBPT given current trends or changes in the field.

Findings for each of these three categories of statements are presented in Appendices B and C and are summarized below.

During the July 16th Exam Chair meeting, HumRRO and the meeting participants reviewed these statements and discussed professional and methodological issues that could have led to increases or decreases in importance ratings relative to the 2016, 2018, and 2019 practice analysis survey results.

- ***Statements at, just above, or below the criticality threshold.*** Using the criticality index of 2.50, representing halfway between scale point 2 (Minimally Important) and 3 (Important), HumRRO extracted statements that received mean importance ratings at, just above (between 2.50 and 3.00), or below (<2.50) the criticality index (see red and orange highlighted statements in Appendix B).

  Following the July 16th meeting, HumRRO administered a survey to the meeting participants to gather their preliminary recommendations regarding item development for statements at, just above, or below the criticality threshold. Participants were instructed to base their recommendations on the practice analysis data, discussion that occurred during the meeting, and their own experience/knowledge of the field. The survey listed each statement and information regarding whether the statement is currently on the NPTE test content outline or excluded from the test content outline. For each statement currently included in the test content outline, participants were instructed to indicate a recommendation for item development out of four possible response options:

- Maintain current status[4]
- Stop writing items
- Stop approving items to be pretested
- Remove items from exam forms

For items currently excluded from the test content outline, response options were:

- Maintain current status[4]
- Start writing items but do not pretest

o Overall, four PT KSR statements fell below the criticality threshold (<2.50), indicating relatively low mean importance ratings. These included:

- Knowledge of diagnostic electrophysiology (EMG/NCV) using needle insertion
- Knowledge of physical therapy ultrasound imaging of the genitourinary system
- Knowledge of applications, indications, contraindications, and precautions of shockwave therapy
- Knowledge of applications, indications, contraindications, and precautions of diathermy

These results are largely consistent with prior practice analysis survey results such that each of these four statements fell near or below the criticality threshold in 2018 and 2019. Consistent with these data, the majority of meeting participants indicated "maintain current status" for each of these statements via the post-meeting survey, suggesting they recommend taking no action at this time with regard to item-writing.

o Consistent with the 2018 and 2019 results, none of the PTA KSR statements received mean importance ratings below the criticality threshold.

o Of the WA statements, three PTA WAs fell below the criticality threshold. These included:

- Perform and/or train patient/client/caregiver in hyperbaric therapy
- Perform and/or train patient/client/caregiver in shockwave therapy
- Perform and/or train patient/client/caregiver in monochromatic infrared agent procedures (e.g., light emitting diodes [LEDs])

Each of these statements had mean importance ratings between 2.15 and 2.57 across all four cycles of data collection, and they are currently excluded from the test content outline. Additionally, the majority of meeting participants selected "Maintain current status" when providing item development recommendations, again suggesting they recommend taking no action at this time with regard to item-writing.

[4] Participants were instructed to select "Maintain current status" when they did not recommend any of the alternative response options.

- Of the PT WA statements, 20 fell below the criticality threshold. Consistent with the 2019 results, the majority of these statements were associated with "Integumentary Repair & Protection Techniques" or "Therapeutic Modalities." Of the seven (7) statements below that criticality threshold that are currently *included* on the test content outline, there were two statements where the majority of meeting participants recommended to either stop writing items, stop approving items to be pretested, or remove items from exam forms. These items were:

    - Apply taping for lymphatic drainage
    - Perform and/or train patient/client/caregiver in phonophoresis

- ***Statements with mean differences greater than |0.50|.*** HumRRO computed the difference between mean importance ratings across years and highlighted values that indicated an increase or decrease in mean importance of greater than 0.50 (see Appendix C).

    - Overall, ratings were relatively consistent from 2016 to 2020.

    - KSR statements increasing in importance were typically statements referring to "The impact of pharmacology used to treat the [system name] system on physical therapy management." Note it is possible these increases are due to the wording changes made for the 2019 data collection cycle versus substantive changes in the field. Those decreasing in importance were statements referring to therapeutic modalities: "Applications, indications, contraindications, and precautions of: [modality name]."

    - Three (3) PT WAs increased in mean importance from 2016 to 2020 and three (3) decreased in importance by greater than |0.50|:

        - Perform dry needling (+0.63)
        - Interpret each of the following types of data to determine the need for intervention or the response to intervention: Neuromuscular system (+0.62)
        - Interpret each of the following types of data to determine the need for intervention or the response to intervention: Functional mobility, balance, and vestibular (+0.50)
        - Perform and/or train patient/client/caregiver in phonophoresis (-0.53)
        - Perform and/or train patient/client/caregiver in iontophoresis (-0.60)
        - Perform and/or train patient/client/caregiver in ultrasound procedures (-0.88)

    - Four PTA WAs increased in mean importance by greater than |0.50| from 2016 to 2020:
        - Apply taping for pain management (+0.75)
        - Apply taping for neuromuscular reeducation (+0.68)
        - Perform tests and measures of acquisition and evolution of motor skills throughout the lifespan (+0.56)
        - Educate the healthcare team about safe patient handling (e.g., injury prevention, ergonomics, use of equipment) (+0.54)

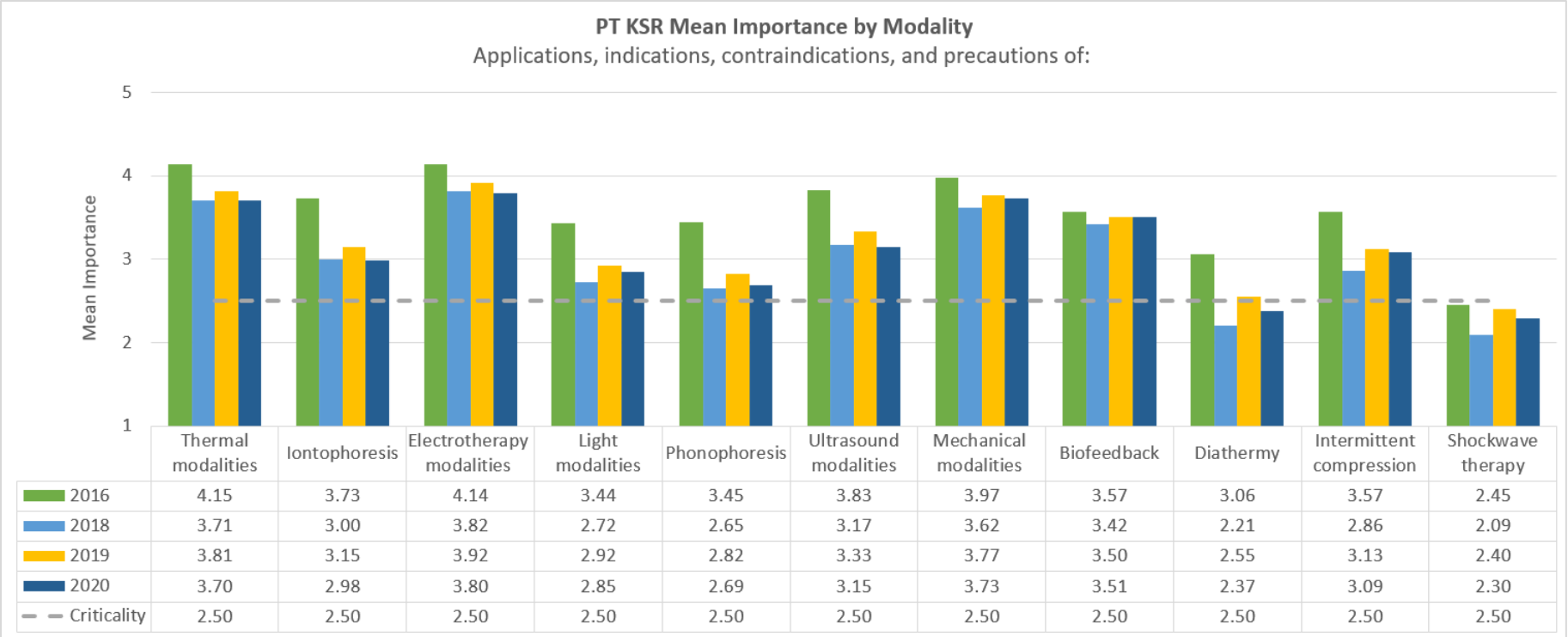
Whereas it is likely KSR changes are due to survey revisions, WA changes over time may represent more substantive changes in the field. For instance, during the July 16th meeting, it was noted that DPT programs may be placing less emphasis on treatments such as iontophoresis and phonophoresis relative to other forms of treatment.

- ***Selected WAs and KSRs***: FSBPT indicated special interest in tracking specific WAs and KSRs overtime due to relevant changes and trends in the physical therapy field. These included:
    - PT and PTA therapeutic modalities
    - Impact of regenerative medicine
    - Dry needling
    - Ultrasound for diagnosis versus Intervention
    - Diathermy by work setting

Figures 1 and 2 (next page) depict mean importance ratings from 2016 to 2020 for each of the PT and PTA therapeutic modalities. Although there were decreases in importance ratings for each modality from 2016 to 2018, the PT and PTA importance ratings were largely consistent from 2018 to 2020, with slight decreases for PT modalities from 2019 to 2020 and slight increases in PTA modalities from 2019 to 2020.

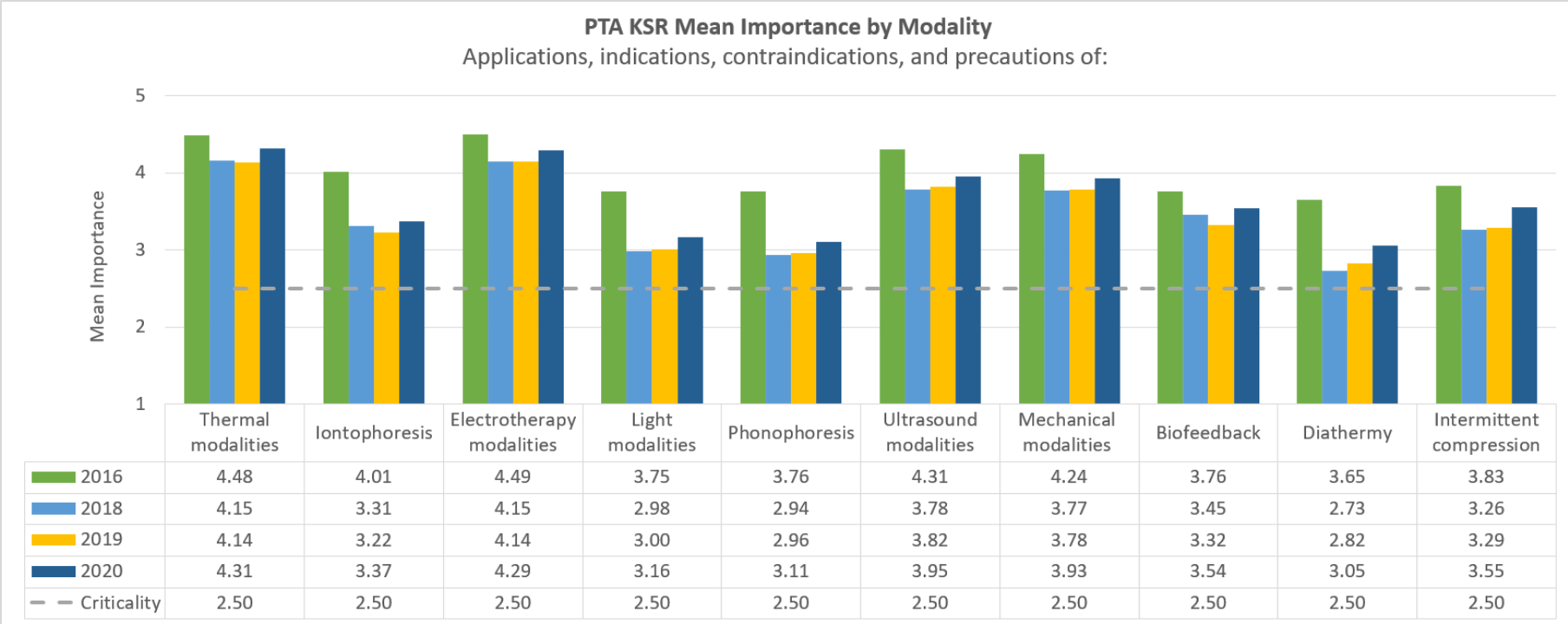
Figure 3 depicts mean importance ratings from 2016 to 2020 for WAs and KSRs related to the impact of regenerative medicine, dry needling, and ultrasound for diagnosis versus intervention. Overall, importance ratings for the impact of regenerative medicine demonstrated slight increases from 2016 to 2019 and remained relatively stable from 2019 to 2020. Importance ratings for dry needling increased between 2016 and 2018 but remained stable since 2018. Overall, statements related to ultrasound modalities and procedures were rated relatively low in 2020 (at or below the criticality threshold) and demonstrated slight decreases from 2019 to 2020.

Figures 4a-4d (next pages) depict mean importance ratings from 2018 to 2020 for diathermy by work setting. Overall, diathermy continues to be rated as more important for PTs and PTAs working in skilled nursing facilities (SNFs) relative to the other work settings, although importance ratings slightly decreased from 2019 for PTs in SNFs. Consistent with the 2019 results, subgroup analyses demonstrated the 2020 mean importance ratings for this KSR were significantly higher for PTs who work in SNFs at least 50% of the time (M = 3.13, SD = 1.38) compared to those who do not (M = 2.31, SD = 1.20), d = 0.68, $p < .001$. Similarly, mean importance ratings for the WA statement "Perform and/or train patient/client/caregiver in diathermy" were significantly higher for both PTs (M = 2.79, SD = 1.44) and PTAs (M = 3.10, SD = 1.42) who work in SNFs at least 50% of the time compared to those who do not (PT: M = 1.69, SD = 1.07, d = 0.97, $p < .001$; PTA: M = 2.30, SD = 1.24, d = 0.62, $p < .001$.



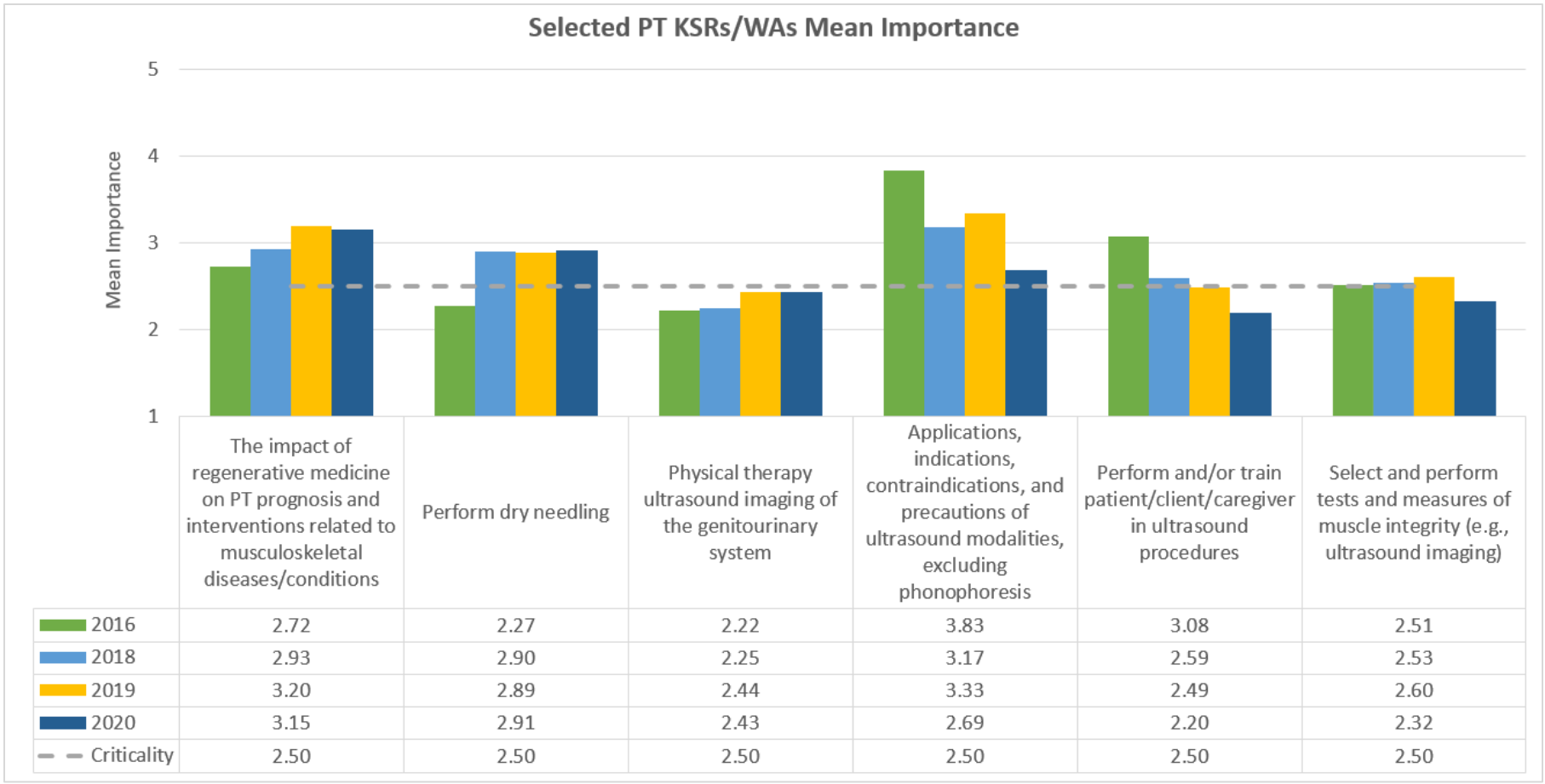
	Thermal modalities	Iontophoresis	Electrotherapy modalities	Light modalities	Phonophoresis	Ultrasound modalities	Mechanical modalities	Biofeedback	Diathermy	Intermittent compression	Shockwave therapy
2016	4.15	3.73	4.14	3.44	3.45	3.83	3.97	3.57	3.06	3.57	2.45
2018	3.71	3.00	3.82	2.72	2.65	3.17	3.62	3.42	2.21	2.86	2.09
2019	3.81	3.15	3.92	2.92	2.82	3.33	3.77	3.50	2.55	3.13	2.40
2020	3.70	2.98	3.80	2.85	2.69	3.15	3.73	3.51	2.37	3.09	2.30
Criticality	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50

Figure 1. PT KSR Mean Importance by Modality



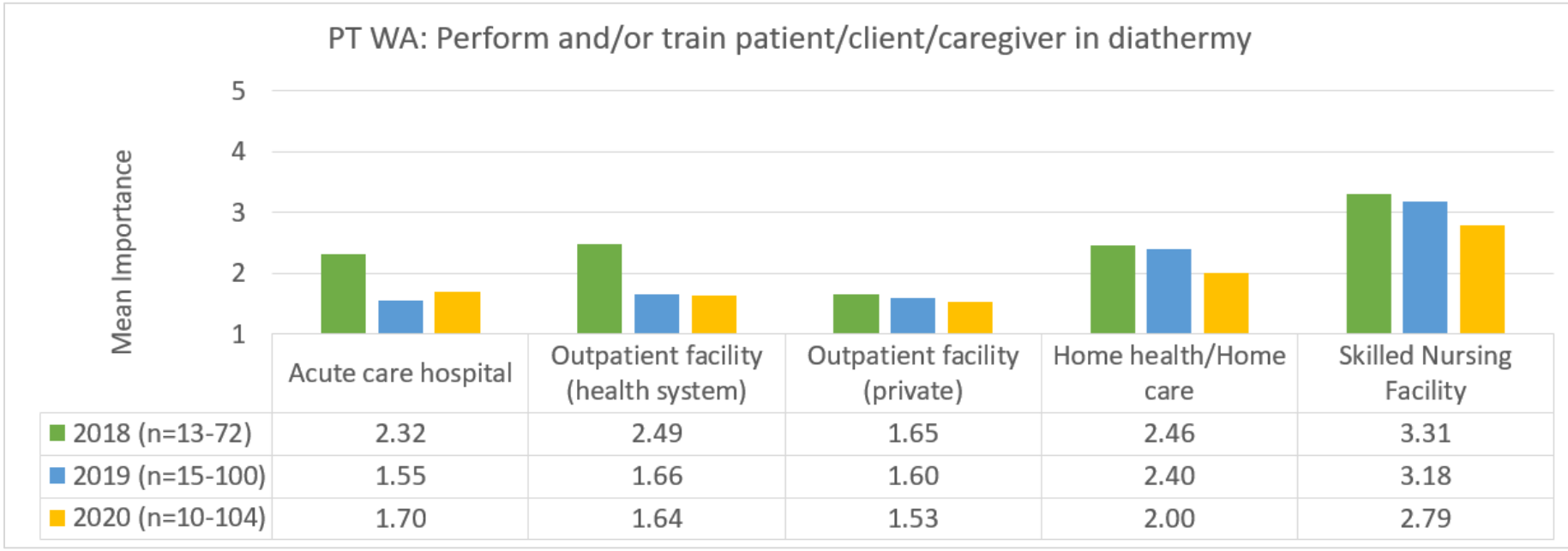
	Thermal modalities	Iontophoresis	Electrotherapy modalities	Light modalities	Phonophoresis	Ultrasound modalities	Mechanical modalities	Biofeedback	Diathermy	Intermittent compression
2016	4.48	4.01	4.49	3.75	3.76	4.31	4.24	3.76	3.65	3.83
2018	4.15	3.31	4.15	2.98	2.94	3.78	3.77	3.45	2.73	3.26
2019	4.14	3.22	4.14	3.00	2.96	3.82	3.78	3.32	2.82	3.29
2020	4.31	3.37	4.29	3.16	3.11	3.95	3.93	3.54	3.05	3.55
Criticality	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50	2.50

Figure 2. PTA KSR Mean Importance by Modality



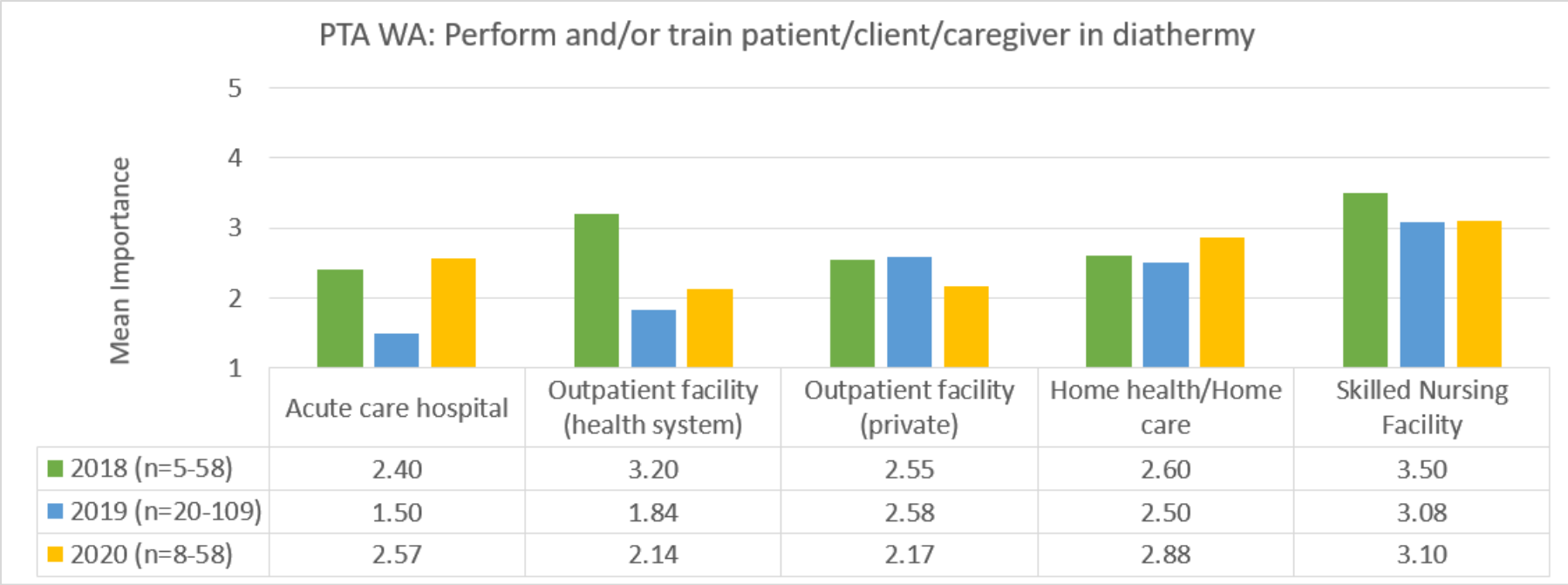
	The impact of regenerative medicine on PT prognosis and interventions related to musculoskeletal diseases/conditions	Perform dry needling	Physical therapy ultrasound imaging of the genitourinary system	Applications, indications, contraindications, and precautions of ultrasound modalities, excluding phonophoresis	Perform and/or train patient/client/caregiver in ultrasound procedures	Select and perform tests and measures of muscle integrity (e.g., ultrasound imaging)
2016	2.72	2.27	2.22	3.83	3.08	2.51
2018	2.93	2.90	2.25	3.17	2.59	2.53
2019	3.20	2.89	2.44	3.33	2.49	2.60
2020	3.15	2.91	2.43	2.69	2.20	2.32
Criticality	2.50	2.50	2.50	2.50	2.50	2.50

Figure 3. Selected PT KSRs/WAs Mean Importance



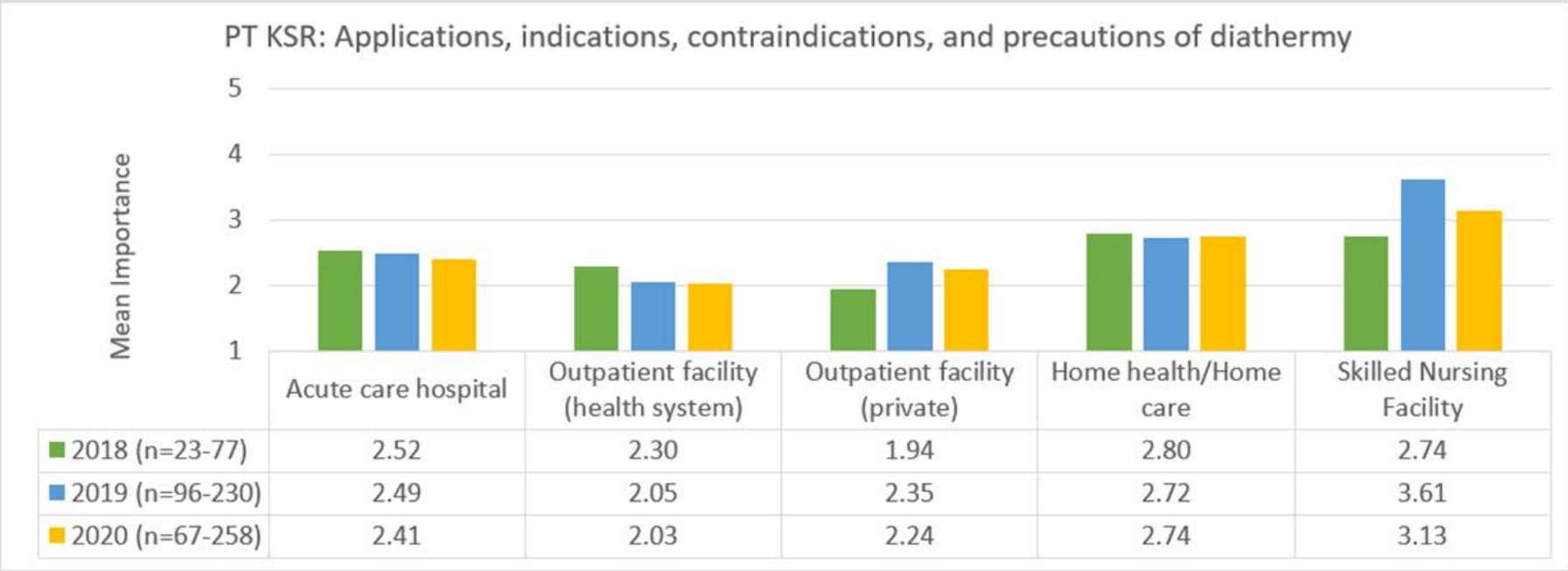
	Acute care hospital	Outpatient facility (health system)	Outpatient facility (private)	Home health/Home care	Skilled Nursing Facility
2018 (n=13-72)	2.32	2.49	1.65	2.46	3.31
2019 (n=15-100)	1.55	1.66	1.60	2.40	3.18
2020 (n=10-104)	1.70	1.64	1.53	2.00	2.79

Figure 4a. Diathermy by Work Setting: PT WA



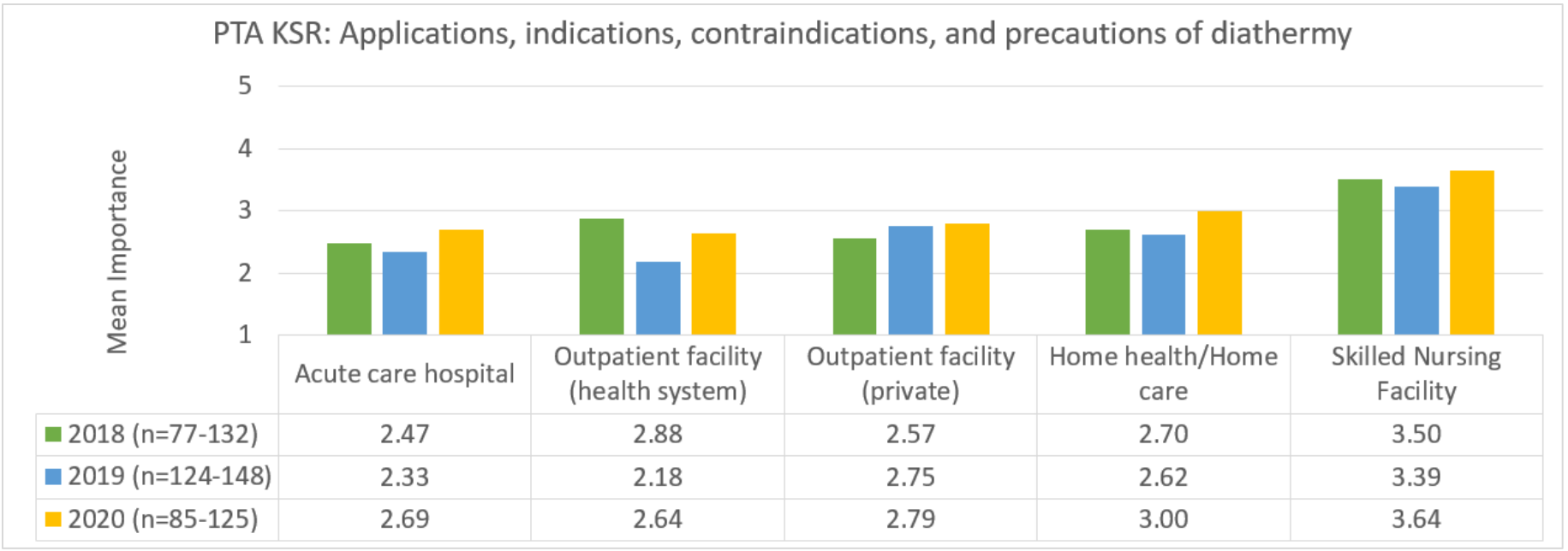
	Acute care hospital	Outpatient facility (health system)	Outpatient facility (private)	Home health/Home care	Skilled Nursing Facility
2018 (n=5-58)	2.40	3.20	2.55	2.60	3.50
2019 (n=20-109)	1.50	1.84	2.58	2.50	3.08
2020 (n=8-58)	2.57	2.14	2.17	2.88	3.10

Figure 4b. Diathermy by Work Setting: PTA WA



	Acute care hospital	Outpatient facility (health system)	Outpatient facility (private)	Home health/Home care	Skilled Nursing Facility
2018 (n=23-77)	2.52	2.30	1.94	2.80	2.74
2019 (n=96-230)	2.49	2.05	2.35	2.72	3.61
2020 (n=67-258)	2.41	2.03	2.24	2.74	3.13

Figure 4c. Diathermy by Work Setting: PT KSR



	Acute care hospital	Outpatient facility (health system)	Outpatient facility (private)	Home health/Home care	Skilled Nursing Facility
2018 (n=77-132)	2.47	2.88	2.57	2.70	3.50
2019 (n=124-148)	2.33	2.18	2.75	2.62	3.39
2020 (n=85-125)	2.69	2.64	2.79	3.00	3.64

Figure 4d. Diathermy by Work Setting: PTA KSR

Recommendations for Future Practice Analysis Survey Cycles

HumRRO solicited feedback on the above results and the overall job analysis process from FSBPT and the Exam Committee Chairs. Their feedback and the data we collected suggest the following recommendations:

- Add “laser light therapy” and “LED light therapy” as separate items on the PT KSR and PTA KSR surveys. Currently, the KSR statements read “Applications, indications, contraindications, and precautions of light modalities (e.g., laser light therapy, LED light therapy)”.
- Add “telemedicine” as a separate item on the PT KSR and PTA KSR surveys. Currently, the KSR statements read “Health information technology (e.g., electronic medical records, telemedicine)".
- Track phonophoresis and iontophoresis by practice setting.
- Solicit preliminary item development recommendations from Exam Committee Chairs prior to a group meeting to discuss rationale for discrepant recommendations during the meeting.
- Continue to track trends overtime in KSRs and WAs to inform decisions regarding their inclusion and exclusion on the exam.

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Appendix A. Summary of Background Questionnaire Responses

Table A.1. Descriptive Statistics for the 2020 Background Questionnaire

Question	Count				Percent			
	PT KSR	PTA KSR	PT WA	PTA WA	PT KSR	PTA KSR	PT WA	PTA WA
Q1 What is your gender?								
I prefer not to respond	22	16	16	10	1.1	1.4	1.0	1.5
Female	1336	789	1008	451	66.8	68.7	63.9	67.6
Male	542	282	457	163	27.1	24.6	29.0	24.4
[other]	1	0	3	0	0.1	0.0	0.2	0.0
Q2 Are you Hispanic or Latino?								
I prefer not to respond	41	27	30	13	2.1	2.4	1.9	1.9
Yes	80	84	85	70	4.0	7.3	5.4	10.5
No	1806	994	1409	553	90.3	86.6	89.3	82.9
Q3 What is your race?								
I prefer not to respond	66	52	38	28	3.3	4.5	2.4	4.2
American Indian or Alaska Native	11	11	11	7	0.6	1.0	0.7	1.0
Asian	367	103	213	71	18.4	9.0	13.5	10.6
Black or African American	53	52	44	34	2.7	4.5	2.8	5.1
Native Hawaiian or Other Pacific Islander	9	11	10	5	0.5	1.0	0.6	0.7
White	1439	868	1229	500	72.0	75.6	77.9	75.0
[other]	38	31	39	23	1.9	2.7	2.5	3.4
Q4 What is the highest academic degree related to physical therapy that you have earned?								
Certificate	0	1	0	0	0.0	0.1	0.0	0.0
Associate's	0	701	0	500	0.0	61.1	0.0	75.0
Bachelor's	160	167	66	127	8.0	14.5	4.2	19.0
Master's	353	70	41	14	17.7	6.1	2.6	2.1
Doctor of Physical Therapy (DPT)	1397	172	1422	6	69.9	15.0	90.1	0.9
Doctoral degree (PhD, EdD, clinical doctorate, or other)	32	3	6	0	1.6	0.3	0.4	0.0
[other]	12	5	7	2	0.6	0.4	0.4	0.3
Q5 Where did you complete your entry-level physical therapy education?								
United States	1658	1030	1397	607	82.9	89.7	88.5	91.0
Canada	5	1	1	0	0.3	0.1	0.1	0.0
Egypt	6	3	5	3	0.3	0.3	0.3	0.4
India	91	18	51	13	4.6	1.6	3.2	1.9
Philippines	166	51	62	15	8.3	4.4	3.9	2.2
South Korea	2	0	2	2	0.1	0.0	0.1	0.3
United Kingdom	8	1	0	0	0.4	0.1	0.0	0.0
[other]	31	17	31	8	1.6	1.5	2.0	1.2

Table A.1. (continued)

Question	Count				Percent			
	PT KSR	PTA KSR	PT WA	PTA WA	PT KSR	PTA KSR	PT WA	PTA WA
Q6 In what year were you FIRST licensed as a physical therapist in the United States, the District of Columbia, U.S. Virgin Islands, or Puerto Rico?								
Not selected	2	1	1	0	0.1	0.1	0.1	0.0
1955-1959	0	0	0	0	0.0	0.0	0.0	0.0
1960-1969	0	0	0	0	0.0	0.0	0.0	0.0
1970-1979	1	1	0	0	0.1	0.1	0.0	0.0
1980-1989	4	5	0	0	0.2	0.4	0.0	0.0
1990-1999	218	120	3	1	10.9	10.5	0.2	0.1
2000-2009	714	347	0	3	35.7	30.2	0.0	0.4
2010-2019	1061	674	1572	663	53.1	58.7	99.6	99.4
2020-2029	0	0	2	0	0.0	0.0	0.1	0.0
Q7 In which one of the following United States physical therapy jurisdictions do you currently have your PRIMARY clinical work setting?								
Not selected	15	11	16	1	0.8	1.0	1.0	0.1
Alabama	19	8	25	6	1.0	0.7	1.6	0.9
Alaska	9	6	5	2	0.5	0.5	0.3	0.3
Arizona	42	21	31	20	2.1	1.8	2.0	3.0
Arkansas	17	19	9	8	0.9	1.7	0.6	1.2
California	153	86	153	47	7.7	7.5	9.7	7.0
Colorado	34	15	35	9	1.7	1.3	2.2	1.3
Connecticut	18	11	27	7	0.9	1.0	1.7	1.0
District of Columbia (Washington)	15	1	11	1	0.8	0.1	0.7	0.1
Delaware	11	2	5	3	0.6	0.2	0.3	0.4
Florida	63	60	55	35	3.2	5.2	3.5	5.2
Georgia	45	35	55	14	2.3	3.0	3.5	2.1
Guam	2	1	0	0	0.1	0.1	0.0	0.0
Hawaii	16	3	9	2	0.8	0.3	0.6	0.3
Idaho	8	11	10	8	0.4	1.0	0.6	1.2
Illinois	82	48	62	35	4.1	4.2	3.9	5.2
Indiana	53	38	36	18	2.7	3.3	2.3	2.7
Iowa	13	12	16	11	0.7	1.0	1.0	1.6
Kansas	8	3	13	5	0.4	0.3	0.8	0.7
Kentucky	19	21	14	15	1.0	1.8	0.9	2.2
Louisiana	21	17	13	6	1.1	1.5	0.8	0.9
Maine	10	5	11	1	0.5	0.4	0.7	0.1
Maryland	58	29	32	22	2.9	2.5	2.0	3.3
Massachusetts	50	26	38	12	2.5	2.3	2.4	1.8
Michigan	57	44	33	21	2.9	3.8	2.1	3.1

Table A.1. (continued)

Question	Count				Percent			
	PT KSR	PTA KSR	PT WA	PTA WA	PT KSR	PTA KSR	PT WA	PTA WA
Q7 (continued) In which one of the following United States physical therapy jurisdictions do you currently have your PRIMARY clinical work setting?								
Minnesota	45	9	38	15	2.3	0.8	2.4	2.2
Mississippi	9	12	7	9	0.5	1.0	0.4	1.3
Missouri	37	19	31	11	1.9	1.7	2.0	1.6
Montana	12	2	10	2	0.6	0.2	0.6	0.3
Nebraska	13	8	8	6	0.7	0.7	0.5	0.9
Nevada	14	5	16	7	0.7	0.4	1.0	1.0
New Hampshire	27	11	9	3	1.4	1.0	0.6	0.4
New Jersey	159	38	69	10	8.0	3.3	4.4	1.5
New Mexico	10	9	6	7	0.5	0.8	0.4	1.0
New York	142	61	145	62	7.1	5.3	9.2	9.3
North Carolina	39	18	44	17	2.0	1.6	2.8	2.5
North Dakota	3	3	4	0	0.2	0.3	0.3	0.0
Northern Mariana Islands	0	0	0	0	0.0	0.0	0.0	0.0
Ohio	52	45	57	24	2.6	3.9	3.6	3.6
Oklahoma	9	11	14	8	0.5	1.0	0.9	1.2
Oregon	40	18	36	10	2.0	1.6	2.3	1.5
Pennsylvania	90	51	71	26	4.5	4.4	4.5	3.9
Puerto Rico	0	0	2	0	0.0	0.0	0.1	0.0
Rhode Island	7	2	2	3	0.4	0.2	0.1	0.4
South Carolina	38	24	25	11	1.9	2.1	1.6	1.6
South Dakota	4	3	3	2	0.2	0.3	0.2	0.3
Tennessee	32	26	22	16	1.6	2.3	1.4	2.4
Texas	136	112	89	39	6.8	9.8	5.6	5.8
U.S. Virgin Islands	0	1	1	0	0.0	0.1	0.1	0.0
Utah	18	14	10	8	0.9	1.2	0.6	1.2
Vermont	7	4	3	1	0.4	0.3	0.2	0.1
Virginia	69	35	39	17	3.5	3.0	2.5	2.5
Washington	50	22	34	15	2.5	1.9	2.2	2.2
West Virginia	7	9	3	1	0.4	0.8	0.2	0.1
Wisconsin	30	13	39	11	1.5	1.1	2.5	1.6
Wyoming	6	1	3	3	0.3	0.1	0.2	0.4

Table A.1. (continued)

Question	Count				Percent			
	PT KSR	PTA KSR	PT WA	PTA WA	PT KSR	PTA KSR	PT WA	PTA WA
Q8 In which of the following United States physical therapy jurisdictions are you currently licensed (percentages may sum to more than 100%)?								
Alabama	20	13	31	6	1.0	1.1	2.0	0.9
Alaska	12	6	9	3	0.6	0.5	0.6	0.4
Arizona	49	27	48	19	2.5	2.4	3.0	2.8
Arkansas	19	20	9	7	1.0	1.7	0.6	1.0
California	183	99	175	49	9.2	8.6	11.1	7.3
Colorado	48	20	56	12	2.4	1.7	3.5	1.8
Connecticut	21	15	36	7	1.1	1.3	2.3	1.0
District of Columbia (Washington)	25	4	14	2	1.3	0.3	0.9	0.3
Delaware	17	1	16	7	0.9	0.1	1.0	1.0
Florida	96	68	63	41	4.8	5.9	4.0	6.1
Georgia	57	45	62	19	2.9	3.9	3.9	2.8
Guam	1	1	0	0	0.1	0.1	0.0	0.0
Hawaii	25	5	16	2	1.3	0.4	1.0	0.3
Idaho	12	12	18	8	0.6	1.0	1.1	1.2
Illinois	99	55	75	39	5.0	4.8	4.8	5.8
Indiana	66	43	38	19	3.3	3.7	2.4	2.8
Iowa	18	15	29	17	0.9	1.3	1.8	2.5
Kansas	12	7	20	8	0.6	0.6	1.3	1.2
Kentucky	24	25	18	17	1.2	2.2	1.1	2.5
Louisiana	24	23	17	5	1.2	2.0	1.1	0.7
Maine	18	5	15	2	0.9	0.4	1.0	0.3
Maryland	74	36	40	24	3.7	3.1	2.5	3.6
Massachusetts	81	37	57	16	4.1	3.2	3.6	2.4
Michigan	71	50	39	22	3.6	4.4	2.5	3.3
Minnesota	48	12	45	14	2.4	1.0	2.9	2.1
Mississippi	12	12	9	10	0.6	1.0	0.6	1.5
Missouri	43	21	33	13	2.2	1.8	2.1	1.9
Montana	12	4	11	2	0.6	0.3	0.7	0.3
Nebraska	16	9	9	6	0.8	0.8	0.6	0.9
Nevada	16	5	21	7	0.8	0.4	1.3	1.0
New Hampshire	35	14	16	3	1.8	1.2	1.0	0.4
New Jersey	183	44	77	11	9.2	3.8	4.9	1.6
New Mexico	10	9	10	6	0.5	0.8	0.6	0.9
New York	191	74	173	66	9.6	6.4	11.0	9.9
North Carolina	47	24	52	17	2.4	2.1	3.3	2.5
North Dakota	4	3	7	0	0.2	0.3	0.4	0.0
Northern Mariana Islands	0	0	0	0	0.0	0.0	0.0	0.0
Ohio	65	50	64	29	3.3	4.4	4.1	4.3

Table A.1. (continued)

Question	Count				Percent			
	PT KSR	PTA KSR	PT WA	PTA WA	PT KSR	PTA KSR	PT WA	PTA WA
Q8 (continued) In which of the following United States physical therapy jurisdictions are you currently licensed (percentages may sum to more than 100%)?								
Oklahoma	9	11	15	9	0.5	1.0	1.0	1.3
Oregon	54	25	42	12	2.7	2.2	2.7	1.8
Pennsylvania	116	59	89	28	5.8	5.1	5.6	4.2
Puerto Rico	0	0	1	0	0.0	0.0	0.1	0.0
Rhode Island	10	3	4	3	0.5	0.3	0.3	0.4
South Carolina	51	30	35	11	2.6	2.6	2.2	1.6
South Dakota	5	3	5	3	0.3	0.3	0.3	0.4
Tennessee	41	31	34	17	2.1	2.7	2.2	2.5
Texas	158	127	104	43	7.9	11.1	6.6	6.4
U.S. Virgin Islands	0	0	1	0	0.0	0.0	0.1	0.0
Utah	22	13	13	9	1.1	1.1	0.8	1.3
Vermont	13	4	7	2	0.7	0.3	0.4	0.3
Virginia	89	42	55	21	4.5	3.7	3.5	3.1
Washington	63	29	49	15	3.2	2.5	3.1	2.2
West Virginia	9	11	4	2	0.5	1.0	0.3	0.3
Wisconsin	43	16	46	14	2.2	1.4	2.9	2.1
Wyoming	7	3	4	4	0.4	0.3	0.3	0.6
Q9 Which best describes the location of your PRIMARY clinical work setting?								
Urban/Metropolitan	686	336	623	222	34.3	29.3	39.5	33.3
Suburban	995	496	688	271	49.8	43.2	43.6	40.6
Rural	282	291	235	152	14.1	25.3	14.9	22.8
Q10 What is your employment status as a physical therapist (physical therapist assistant)?								
Actively employed as a physical therapist (physical therapist assistant) full-time	1,433	804	1,339	453	71.7	70.0	84.9	67.9
Actively employed as a physical therapist (physical therapist assistant) part-time	326	204	103	118	16.3	17.8	6.5	17.7
Self-employed as a physical therapist (physical therapist assistant) full-time	123	35	9	6	6.2	3.0	0.6	0.9
Self-employed as a physical therapist (physical therapist assistant) part-time	50	26	13	14	2.5	2.3	0.8	2.1
Retired	0	0	0	0	0.0	0.0	0.0	0.0
Unemployed, seeking employment as a physical therapist (physical therapist assistant)	68	79	114	76	3.4	6.9	7.2	11.4
NOT seeking employment as a physical therapist (physical therapist assistant)	0	0	0	0	0.0	0.0	0.0	0.0

Table A.1. (continued)

Question	Count				Percent			
	PT KSR	PTA KSR	PT WA	PTA WA	PT KSR	PTA KSR	PT WA	PTA WA
Q11 How many physical therapist (physical therapist assistant) positions/jobs have you held in the past 12 months?								
1	1,429	793	981	412	71.5	69.1	62.2	61.8
2 to 3	531	303	537	231	26.6	26.4	34.0	34.6
4 to 5	19	25	37	10	1.0	2.2	2.3	1.5
6 to 7	1	6	5	2	0.1	0.5	0.3	0.3
More than 7	1	2	1	0	0.1	0.2	0.1	0.0
Q12 Summary: Count of respondents spending at least 50% of their time in a facility.								
Academic institution (post-secondary)	45	9	20	0	2.3	0.8	1.3	0.0
School system (preschool/primary/secondary)	75	33	22	12	3.8	2.9	1.4	1.8
Acute care hospital	226	82	171	38	11.3	7.1	10.8	5.7
Health and wellness facility	20	2	7	5	1.0	0.2	0.4	0.7
Outpatient facility (health system or hospital-based)	492	177	426	95	24.6	15.4	27.0	14.2
Outpatient facility (private)	548	259	614	264	27.4	22.6	38.9	39.6
Industrial Rehabilitation	3	5	4	0	0.2	0.4	0.3	0.0
Inpatient Rehab Facility (IRF)	74	58	68	15	3.7	5.1	4.3	2.2
US Military/Veterans Administration/Indian Health Services	31	6	13	4	1.6	0.5	0.8	0.6
Patient's home/home care	255	187	83	47	12.8	16.3	5.3	7.0
Research center	3	0	1	0	0.2	0.0	0.1	0.0
Skilled Nursing Facility (SNF)	169	295	120	159	8.5	25.7	7.6	23.8
Assisted Living Facility (ALF)	17	10	9	12	0.9	0.9	0.6	1.8
Long-term Acute Care (LTAC)	6	13	6	7	0.3	1.1	0.4	1.0
Other	39	14	13	7	2.0	1.2	0.8	1.0
Q13 Approximately what percentage of your time over the past 12 months was spent in direct patient care?								
0%	22	8	6	3	1.1	0.7	0.4	0.4
1 to 25%	78	18	14	7	3.9	1.6	0.9	1.0
26 to 50%	60	33	16	10	3.0	2.9	1.0	1.5
51 to 75%	266	117	169	78	13.3	10.2	10.7	11.7
76 to 100%	1,552	954	1,359	558	77.6	83.1	86.1	83.7

Table A.1. (continued)

Question	Count				Percent			
	PT KSR	PTA KSR	PT WA	PTA WA	PT KSR	PTA KSR	PT WA	PTA WA
Q14 For the facility in which you work the most, what is your principal area of responsibility?								
None	531	534	591	352	26.6	46.5	37.5	52.8
Administration/Management	572	189	245	78	28.6	16.5	15.5	11.7
Supervision	725	185	445	56	36.3	16.1	28.2	8.4
Consultation	280	85	189	35	14.0	7.4	12.0	5.2
Research	96	19	97	22	4.8	1.7	6.1	3.3
Sales/Marketing	269	78	183	47	13.5	6.8	11.6	7.0
Academic education	137	53	116	35	6.9	4.6	7.4	5.2
Clinical education	704	292	475	163	35.2	25.4	30.1	24.4
Other	73	75	66	48	3.7	6.5	4.2	7.2
Q15 Summary: Count of respondents spending at least 50% of their time with a population group.								
18 and under	221	54	128	31	11.1	4.7	8.1	4.6
19 to 64	740	296	653	203	37.0	25.8	41.4	30.4
65 and over	920	742	674	389	46.0	64.6	42.7	58.3
Q16 Are you a current member of American Physical Therapy Association (APTA)?								
Yes	566	154	662	128	28.3	13.4	42.0	19.2
No	1,392	938	850	483	69.6	81.7	53.9	72.4
I don't know	24	35	51	46	1.2	3.0	3.2	6.9
Q17 Have you completed or are you currently completing a Residency or Fellowship in a specialized area of Physical Therapy/an Advanced Proficiency Pathway through the American Physical Therapy Association?								
Yes	181	35	152	10	9.1	3.0	9.6	1.5
No	1,800	1,092	1,413	648	90.0	95.1	89.5	97.2
Q18 Which of these statements is true regarding your experience supervising PTAs over the past 12 months?								
I routinely supervise PTAs and have a good understanding of the knowledge and skills they need to provide safe and effective care.	1,185	258	981	--	59.3	22.5	62.2	--
I do NOT routinely supervise PTAs and/or I do NOT have a good understanding of the knowledge and skills they need to provide safe and effective care.	797	--	574	--	39.9	--	36.4	--

Note. Percentages are based on the observed values divided by the total number of usable cases. Missing data are not reported so within a question, the results may not sum to 100%. For questions 12 and 15, percentages may not sum to 100% because these items used a rate all that apply format. Question 18 was not administered to PTA respondents. The 258 respondents shown for Q18 within the PTA KSR sample are PT KSR survey respondents who were reassigned to complete the PTA survey based on their response to Q18.

Appendix B. Summary of Work Activity and Knowledge and Skill Requirements Survey Responses

Tables B.1-B.4: Statistics and Formatting Key:

- **Sample Size (n):** Count of respondents that provided usable data
- **Mean Importance (M):** Based on responses for scale points 1 through 5
- **Standard Deviation of Importance (SD):** Based on responses for scale points 1 through 5
- **Percent Important ($\%_{Imp}$):** Sum of responses for scale points 2 through 5, divided by the total number of usable respondents

- **Boldface Statement (Black):** Statement text was altered in 2020 in a non-trivial manner prior to survey administration
- **Boldface Mean (Red):** Mean importance value was less than 2.50 (Criticality Threshold)
- **Light Red Shading:** 2020 mean importance value was below 2.50 (Criticality Threshold)
- **Light Orange Shading:** 2020 mean importance value was between 2.50 (including) and 3.00 (excluding)

Table B.1. PT Work Activity Survey Results

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
PATIENT/CLIENT ASSESSMENT																
Information Gathering & Synthesis																
Interview patients/clients, caregivers, and family to obtain patient/client history and current information (e.g., medical, surgical, medications, social, cultural, language preference, economic) to																
- establish prior and current level of function/activity	460	489	819	750	4.66	4.74	4.79	4.80	0.51	0.55	0.48	0.47	100	100	100	100
- establish general health status	460	489	819	750	4.52	4.46	4.52	4.53	0.64	0.72	0.66	0.69	99	100	100	100
- identify red flags (e.g., fever, malaise, unexplained weight change) and contraindications	459	489	819	750	4.68	4.74	4.72	4.73	0.56	0.59	0.63	0.60	99	100	100	100
- identify risk factors and needs for preventative measures	460	489	819	750	4.34	4.37	4.41	4.44	0.76	0.78	0.83	0.74	98	100	100	100
- identify patient/client's, family/caregiver's goals, values, and preferences	458	489	819	750	4.46	4.45	4.54	4.58	0.62	0.73	0.69	0.67	99	100	100	100
- determine if patient/client is appropriate for PT	456	489	819	750	4.52	4.52	4.60	4.61	0.64	0.72	0.72	0.69	100	100	99	100
- determine insurance and financial resources and issues (e.g., co-pays, deductibles, insurance limitations)	445	489	819	750	3.50	3.29	3.39	3.38	1.05	1.17	1.16	1.09	82	90	86	88
- determine impact of medications on plan of care (e.g., medication reconciliation, timing of intervention delivery, adherence)	455	489	819	750	3.97	3.81	3.79	3.70	0.86	1.00	1.02	1.03	96	98	97	98
Administer standardized questionnaires (e.g., pain inventory, fall risk assessment)	454	489	818	750	4.03	3.73	3.70	3.75	0.88	1.04	1.12	1.04	95	97	95	97
Review medical records (e.g., lab values, diagnostic tests, imaging, specialty reports, narrative, consults)	459	489	818	750	4.22	4.16	4.10	4.12	0.75	0.92	0.99	0.91	98	100	99	99
Gather information/discuss patient/client's current health status with interprofessional/interdisciplinary team members	395	489	818	750	4.11	3.98	4.01	3.98	0.72	0.96	0.98	0.96	99	99	98	98

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Identify signs/symptoms of change in patient/client's health status that require intervention by interprofessional/interdisciplinary team members	395	489	818	750	4.33	4.40	4.42	4.37	0.69	0.79	0.79	0.79	99	99	100	100
Systems Review																
Perform screen of the																
- patient/client's current affect, cognition, communication, and learning preferences (e.g., ability to convey needs, consciousness, orientation, expected emotional/behavioral responses)	393	489	818	750	4.04	4.00	3.99	3.95	0.80	0.97	1.03	1.03	97	96	96	96
- patient/client's quality of speech, hearing, and vision (e.g., dysarthria, pitch/tone, use of corrective lenses, use of hearing aids)	376	489	818	750	3.43	3.25	3.27	3.29	0.99	1.18	1.15	1.15	83	89	86	87
- vestibular system (e.g., dizziness, vertigo)	383	481	794	732	3.57	3.50	3.50	3.49	0.89	1.04	1.09	1.09	91	93	90	90
- gastrointestinal system (e.g., difficulty swallowing, nausea, change in appetite/diet, change in bowel function)	372	481	794	732	3.19	2.90	2.98	2.94	1.01	1.05	1.10	1.08	75	85	81	83
- genitourinary system (e.g., changes in bladder function, catheter complications)	362	481	794	732	3.20	2.98	3.11	3.06	1.05	1.11	1.13	1.08	73	83	80	84
- reproductive system (e.g., sexual and/or menstrual dysfunction, menopause status)	350	481	794	732	2.75	**2.45**	**2.49**	2.52	1.08	1.07	1.16	1.07	55	67	65	69
- cardiovascular/pulmonary system (e.g., blood pressure, heart rate, respiration rate)	393	481	794	732	4.22	4.19	4.10	4.08	0.77	0.95	0.93	0.93	98	97	95	96
- lymphatic system (e.g., primary and/or secondary edema)	371	481	794	732	3.33	3.12	3.18	3.18	1.03	1.06	1.11	1.00	81	88	84	87

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- integumentary system (e.g., presence of scar formation, skin integrity, discoloration)	388	481	794	732	3.92	3.59	3.65	3.71	0.79	0.97	1.01	0.97	97	96	94	95
- musculoskeletal system (e.g., gross symmetry, strength, range of motion)	387	481	794	732	4.70	4.77	4.78	4.82	0.48	0.56	0.50	0.44	100	98	97	98
- neuromuscular system (e.g., gross coordination, motor function, balance, locomotion, gross sensory function)	388	481	794	732	4.67	4.73	4.76	4.76	0.49	0.56	0.52	0.50	100	98	97	98
Tests & Measures																
Cardiovascular/Pulmonary																
Select and perform tests and measures of																
- cardiovascular function (e.g., blood pressure, heart rate, heart sounds)	364	474	769	715	4.25	4.24	4.18	4.13	0.72	0.93	0.97	0.97	98	96	92	93
- pulmonary function (e.g., respiratory rate, breathing patterns, breath sounds, chest excursion)	349	474	769	715	3.85	3.71	3.72	3.61	0.96	1.18	1.15	1.15	91	92	87	88
- perfusion and gas exchange (e.g., oxygen saturation)	342	474	769	715	3.83	3.65	3.67	3.61	1.01	1.21	1.19	1.18	88	85	82	85
- peripheral circulation (e.g., capillary refill, blood pressure in upper versus lower extremities)	342	474	769	715	3.54	3.24	3.30	3.24	1.01	1.16	1.13	1.10	85	85	83	86
- critical limb ischemia (e.g., peripheral pulses, skin perfusion pressure)	331	474	769	715	3.49	3.21	3.23	3.13	1.03	1.17	1.19	1.12	83	82	79	82
- physiological responses to position change (e.g., orthostatic hypotension, skin color, blood pressure, heart rate)	360	474	769	715	4.00	4.04	4.07	3.99	0.85	1.01	1.02	1.03	96	95	90	93
- aerobic capacity under maximal and submaximal conditions (e.g., endurance, exercise tolerance, metabolic equivalents, perceived exertion)	340	474	769	715	3.56	3.66	3.63	3.69	1.00	1.13	1.14	1.08	86	89	86	89

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Anthropometric																
Select and perform tests and measures of																
- body composition (e.g., percent body fat, lean muscle mass)	312	474	768	715	2.71	2.51	2.53	2.50	1.13	1.08	1.13	1.06	53	70	67	71
- body dimensions (e.g., height, weight, girth, limb length, head circumference/shape)	341	474	768	715	2.99	2.60	2.70	2.67	1.08	1.08	1.16	1.06	66	77	75	77
- Quantify and qualify edema (e.g., pitting, volume, circumference)	354	474	768	715	3.45	3.23	3.24	3.28	0.90	1.01	1.06	1.03	88	91	86	88
Arousal, Attention, & Cognition																
Select and perform tests and measures of																
- arousal and orientation (e.g., level of consciousness, time, person, place, situation)	328	465	746	698	3.86	3.76	3.78	3.68	0.91	1.19	1.23	1.26	92	86	79	77
- attention and cognition (e.g., ability to process commands, delirium, confusion)	325	465	746	698	3.76	3.80	3.83	3.70	0.94	1.12	1.13	1.16	91	87	81	81
- communication (e.g., expressive and receptive skills, following instructions)	321	465	746	698	3.70	3.78	3.81	3.76	0.96	1.04	1.07	1.10	88	89	84	83
- recall (including memory and retention)	318	465	746	698	3.47	3.45	3.44	3.39	1.04	1.10	1.11	1.08	83	87	80	81
Nerve Integrity																
Select and perform tests and measures of																
- cranial nerve integrity (e.g., facial asymmetry, oculomotor function, hearing)	332	465	746	698	3.82	3.38	3.42	3.33	0.96	1.18	1.12	1.12	91	85	82	84
- spinal nerve integrity (e.g., dermatome, myotome)	353	465	746	698	4.17	4.10	4.00	4.03	0.84	0.93	1.00	0.95	97	94	90	91
- peripheral nerve integrity (e.g., sensation, strength)	351	465	746	698	4.28	4.23	4.24	4.18	0.70	0.83	0.85	0.86	99	95	90	92
- neural provocation (e.g., tapping, tension, stretch)	337	465	746	698	3.81	3.59	3.57	3.52	1.00	1.11	1.15	1.08	90	88	84	89

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Environmental & Community Integration/Reintegration (Home, Work, Job, School, Play, & Leisure)																
Assess activities of daily living (ADL) (e.g., bed mobility, transfers, household mobility, dressing, self-care, toileting, sexual relations)	355	457	721	688	4.41	4.47	4.51	4.47	0.69	0.82	0.81	0.80	99	93	87	91
Assess instrumental activities of daily living (IADL) (e.g., household chores, hobbies)	348	457	721	688	4.11	4.00	4.15	4.17	0.86	1.03	0.95	0.95	97	91	86	89
Assess ability to perform skills needed for integration or reintegration into the community, work, or school	313	457	721	688	4.04	4.13	4.22	4.22	0.81	0.94	0.92	0.93	97	91	85	90
Assess barriers (e.g., social, economic, physical, psychological, environmental, work conditions and activities) to home, community, work, or school integration/reintegration	322	457	721	688	3.99	4.18	4.13	4.19	0.82	0.89	0.92	0.91	98	91	87	90
Assess safety in home, community, work, or school environments	300	457	721	688	4.07	4.25	4.21	4.25	0.82	0.93	0.94	0.94	97	89	81	88
Assess ability to participate in activities with or without the use of devices, equipment, or technologies	319	457	721	688	4.08	4.30	4.30	4.35	0.78	0.84	0.86	0.85	97	91	86	91
Ergonomics and Body Mechanics																
Select and perform tests and measures of																
- ergonomics and body mechanics during functional activities	317	446	710	680	4.00	4.12	4.16	4.25	0.87	0.99	1.00	0.89	96	89	85	89
- postural alignment and position (static and dynamic)	326	446	710	680	4.16	4.21	4.23	4.23	0.75	0.89	0.94	0.90	99	91	86	90
- specific work conditions or activities	301	446	710	680	3.75	3.83	3.90	3.97	0.91	1.04	1.08	0.99	92	87	80	86
- tools, devices, equipment, and workstations related to work actions, tasks, or activities	282	446	710	680	3.58	3.52	3.61	3.68	0.95	1.13	1.17	1.08	88	82	76	84

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Functional Mobility, Balance, & Vestibular																
Select and perform tests and measures of																
- balance (dynamic and static) with or without the use of specialized equipment	326	446	710	680	4.27	4.60	4.54	4.58	0.67	0.69	0.73	0.65	100	91	86	90
- gait and locomotion (e.g., ambulation, wheelchair mobility) with or without the use of specialized equipment	327	446	710	680	4.42	4.72	4.67	4.69	0.64	0.58	0.61	0.60	100	91	86	91
- mobility during functional activities and transitional movements (e.g., transfers, bed mobility)	307	446	710	680	4.35	4.69	4.63	4.65	0.69	0.63	0.71	0.66	100	91	86	90
- vestibular function (e.g., peripheral dysfunction, central dysfunction, BPPV)	284	446	710	680	3.68	3.64	3.62	3.64	0.87	1.03	1.08	1.06	93	84	79	84
Integumentary Integrity																
Assess skin characteristics (e.g., continuity of skin color, sensation, temperature, texture, turgor)	309	442	702	675	3.77	3.49	3.54	3.54	0.85	1.04	1.04	1.02	94	87	81	87
Assess wound characteristics (e.g., tissue involvement, depth, tunneling, burn classification, ulcer/injury classification)	261	442	702	675	3.48	3.17	3.17	3.18	1.05	1.17	1.18	1.18	81	74	64	68
Assess scar tissue characteristics (e.g., banding, pliability, sensation, and texture)	288	442	702	675	3.52	3.26	3.28	3.29	0.96	1.06	1.13	1.06	87	81	74	81
Assess activities, positioning, and postures that may produce or relieve trauma to the skin	288	442	702	675	3.93	3.83	3.78	3.73	0.81	1.08	1.10	1.15	95	83	77	78
Assess devices and equipment that may produce or relieve trauma to the skin	277	442	702	675	3.74	3.71	3.69	3.62	0.94	1.10	1.15	1.16	90	82	72	76

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Joint Integrity & Range of Motion																
Select and perform tests and measures of																
- spinal and peripheral joint stability (e.g., ligamentous integrity, joint structure)	301	440	690	664	4.10	4.03	4.13	4.14	0.87	1.09	1.04	1.02	95	87	81	87
- spinal and peripheral joint mobility (e.g., glide, end feel)	300	440	690	664	4.10	3.90	3.99	4.01	0.92	1.19	1.17	1.13	95	84	79	85
- range of motion (e.g., passive, active, functional)	313	440	690	664	4.45	4.54	4.62	4.57	0.67	0.75	0.68	0.67	99	90	84	88
- flexibility (e.g., muscle length, soft tissue extensibility)	294	440	690	664	4.24	4.35	4.40	4.35	0.77	0.89	0.91	0.86	98	89	83	88
Motor Function																
Select and perform tests and measures of																
- muscle tone (e.g., hypertonicity, hypotonicity, dystonia)	295	440	690	664	3.99	4.29	4.28	4.24	0.81	0.87	0.94	0.89	97	89	84	88
- dexterity, coordination, and agility (e.g., rapid alternating movement, finger to nose)	291	440	690	664	3.86	3.93	3.99	3.91	0.81	1.00	1.04	1.00	97	89	83	87
- ability to initiate, modify and control movement patterns and postures (e.g., catching a ball, gait)	292	440	690	664	4.11	4.30	4.33	4.33	0.78	0.86	0.87	0.83	98	89	84	88
- ability to change movement performance with practice (e.g., motor learning)	290	440	690	664	4.03	4.30	4.37	4.34	0.77	0.83	0.81	0.82	98	90	84	88
- movement quality (e.g., purpose, precision, efficiency, biomechanics, kinematics)	288	440	690	664	4.00	4.39	4.41	4.38	0.81	0.77	0.76	0.80	97	90	84	88
Muscle Performance																
Select and perform tests and measures of																
- muscle strength, power, and endurance without specialized equipment (e.g., manual muscle test, functional strength testing)	297	438	685	661	4.37	4.63	4.64	4.62	0.66	0.69	0.68	0.67	100	89	83	88

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- muscle strength, power, and endurance with specialized equipment (e.g., isokinetic testing, dynamometry)	258	438	685	661	3.43	3.39	3.58	3.46	1.06	1.40	1.40	1.40	80	69	65	68
- electrophysiological function using surface electrodes (e.g., surface EMG)	201	438	685	661	2.67	2.58	2.61	**2.41**	1.22	1.24	1.33	1.25	51	45	39	41
- electrophysiological function using needle insertion (e.g., nerve conduction)	190	438	685	661	**2.41**	**2.31**	**2.34**	**2.17**	1.25	1.20	1.28	1.18	39	37	31	33
- muscle integrity (e.g., ultrasound imaging)	186	438	685	661	2.51	2.53	2.60	**2.32**	1.14	1.25	1.37	1.24	45	43	35	36
Neuromotor Development & Sensory Integration																
Select and perform tests and measures of																
- acquisition and evolution of motor skills throughout the lifespan	209	438	685	661	3.06	3.15	3.30	3.14	1.09	1.24	1.28	1.26	69	68	58	62
- sensorimotor integration	224	438	685	661	3.23	3.29	3.43	3.29	1.03	1.16	1.18	1.15	76	75	67	68
- developmental reflexes and reactions (e.g., asymmetrical tonic neck reflex, righting reactions)	204	438	685	661	3.17	3.15	3.24	3.04	1.04	1.29	1.35	1.32	74	62	53	53
- oral motor function, phonation, and speech production	188	438	685	661	2.69	2.65	2.59	2.52	1.12	1.20	1.20	1.19	55	53	41	45
Reflex Integrity																
Select and perform tests and measures of																
- deep tendon/muscle stretch reflexes (e.g., quadriceps, biceps)	274	432	680	656	3.62	3.66	3.68	3.69	0.93	1.15	1.17	1.13	90	83	79	83
- upper motor neuron integrity (e.g., Babinski reflex, Hoffman sign)	263	432	680	656	3.69	3.64	3.61	3.66	0.95	1.17	1.20	1.15	89	82	77	82
- superficial reflexes and reactions (e.g., cremasteric reflex, abdominal reflexes)	206	432	680	656	3.03	2.92	2.91	2.84	1.14	1.24	1.39	1.28	65	63	59	65

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Pain & Sensory Integrity																
Select and perform tests and measures of																
- pain (e.g., location, intensity, frequency, central, peripheral, psychogenic)	290	432	680	656	4.10	4.40	4.46	4.42	0.81	0.81	0.82	0.84	97	87	82	86
- deep sensation (e.g., proprioception, kinesthesia, pressure)	281	432	680	656	3.78	3.79	3.84	3.79	0.83	1.10	1.08	1.04	95	85	80	85
- superficial sensation (e.g., touch, temperature discrimination)	278	432	680	656	3.78	3.94	3.92	3.93	0.87	1.01	1.03	0.97	94	86	81	85
- visceral organ sensitivity and integrity (e.g., palpation, auscultation)	222	432	680	656	3.13	2.88	2.86	2.79	1.14	1.16	1.28	1.17	69	63	58	65
Evaluation & Diagnosis																
Interpret each of the following types of data to determine the need for intervention or the response to intervention:																
- Cardiovascular/pulmonary system	247	431	676	653	3.87	4.34	4.19	4.19	0.97	0.91	0.96	0.93	90	87	80	84
- Lymphatic system	206	431	676	653	3.13	3.13	3.00	3.07	1.10	1.09	1.13	1.10	69	75	67	73
- Arousal, attention, cognition, and communication	237	431	676	653	3.71	3.80	3.80	3.73	0.93	1.08	1.11	1.13	90	82	75	78
- Neuromuscular system	271	431	676	653	3.98	4.66	4.62	4.60	0.86	0.64	0.64	0.65	95	88	82	86
- Functional mobility, balance, and vestibular	276	431	676	653	4.14	4.67	4.63	4.64	0.79	0.64	0.64	0.64	98	88	82	87
- Musculoskeletal system	279	431	676	653	4.33	4.82	4.80	4.78	0.72	0.50	0.49	0.47	99	88	83	87
- Integumentary system	261	431	676	653	3.59	3.52	3.53	3.57	0.91	1.05	1.07	1.05	89	84	78	82
- Anthropometric	226	431	676	653	3.11	2.84	2.83	2.76	1.09	1.11	1.12	1.05	71	70	65	70
- Gastrointestinal system	212	431	676	653	2.90	2.71	2.69	2.74	1.12	0.99	1.11	1.05	61	70	62	67
- Genitourinary system	209	431	676	653	2.91	2.68	2.71	2.74	1.14	1.02	1.12	1.08	62	69	61	66
- Need for or use of assistive and adaptive devices/technologies	273	430	671	645	4.05	4.52	4.38	4.42	0.83	0.78	0.93	0.82	96	87	80	84
- Need for or use of orthotic, protective, and supportive devices/technologies	267	430	671	645	3.81	4.27	4.08	4.10	0.86	0.89	1.02	0.97	93	87	79	84

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- Need for or use of prosthetic devices/technologies	233	430	671	645	3.52	3.98	3.77	3.80	0.99	1.05	1.19	1.11	85	76	70	72
- Barriers to home, community, work, or school integration/reintegration	266	430	671	645	3.81	4.21	4.12	4.17	0.89	0.92	0.98	0.94	94	85	79	84
- Ergonomics and body mechanics	259	430	671	645	3.78	4.12	4.13	4.16	0.89	0.94	0.97	0.90	94	87	81	85
- Pain and sensory integrity	270	430	671	645	3.93	4.22	4.26	4.26	0.88	0.86	0.84	0.83	95	88	82	85
- ADLs/IADLs and home management	267	430	671	645	3.99	4.40	4.39	4.47	0.80	0.81	0.88	0.74	97	87	81	85
- Imaging, lab values, and medications	262	430	671	645	3.84	3.61	3.62	3.55	0.88	1.05	1.05	1.03	94	84	76	82
Evaluate the patient/client's ability to assume or resume home, community, work, school, and/or leisure activities	273	430	668	641	4.12	4.63	4.57	4.58	0.76	0.61	0.72	0.70	98	87	81	85
Develop physical therapy diagnosis by integrating system and non-system data	266	430	668	641	4.18	4.48	4.36	4.38	0.81	0.79	0.88	0.84	97	87	80	84
Development of Prognosis, Plan of Care, & Goals																
Establish PT prognosis based on information gathered during the examination process	279	429	666	640	4.50	4.59	4.62	4.59	0.63	0.68	0.67	0.66	99	88	81	85
Develop plan of care based on data gathered during the examination process, incorporating information from the patient/client, caregiver, family members, and other professionals	276	429	666	640	4.63	4.78	4.79	4.79	0.53	0.50	0.49	0.47	100	88	81	85
Revise treatment intervention plan based on treatment outcomes, change in patient/client's health status, and ongoing evaluation	278	429	666	640	4.60	4.79	4.77	4.79	0.54	0.48	0.53	0.49	100	88	81	85

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Develop objective and measurable goals based on information gathered during the examination process, in collaboration with the patient/client, caregiver, family members, and/or other professionals	278	429	666	640	4.58	4.68	4.69	4.71	0.59	0.57	0.63	0.57	100	88	81	85
Select interventions based on information gathered during the examination process, incorporating information from the patient/client, caregiver, family members, and other professionals	278	429	666	640	4.60	4.79	4.79	4.77	0.57	0.46	0.51	0.51	100	88	81	85
Modify plan of care based on patient/client's resources (e.g., financial, transportation, time, insurance benefits, available technologies)	277	429	666	640	4.32	4.56	4.48	4.58	0.79	0.74	0.82	0.72	98	87	80	85
INTERVENTIONS																
Procedural Interventions																
Therapeutic Exercise/Therapeutic Activities																
Perform and/or train patient/client/caregiver in																
- aerobic capacity/endurance conditioning	458	500	821	828	3.96	3.91	3.96	3.97	0.85	0.96	1.01	1.02	95	99	97	97
- balance, coordination, and agility activities	463	500	821	828	4.52	4.57	4.56	4.57	0.60	0.67	0.69	0.65	100	100	100	100
- body mechanics and postural stabilization techniques	460	500	821	828	4.46	4.45	4.47	4.43	0.64	0.81	0.78	0.83	100	100	100	99
- flexibility techniques	457	500	821	828	4.12	3.76	3.73	3.69	0.77	1.01	1.07	1.10	97	98	98	96
- neuromotor techniques (e.g., movement pattern training, neuromuscular education or re-education)	458	500	821	828	4.25	4.21	4.27	4.31	0.75	0.92	0.89	0.85	98	98	99	100
- relaxation techniques	457	500	821	828	3.54	3.44	3.42	3.42	0.91	1.09	1.13	1.12	89	96	95	95
- strength, power, and endurance exercises	460	500	821	828	4.41	4.33	4.38	4.44	0.70	0.83	0.80	0.75	99	100	99	100

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- genitourinary management (e.g., pelvic floor exercises, bladder strategies)	420	500	820	828	3.05	2.72	2.73	2.62	1.06	1.22	1.26	1.23	68	60	56	48
- gastrointestinal management (e.g., bowel strategies, positioning to avoid reflux)	415	500	820	828	2.87	2.57	2.62	2.52	1.05	1.16	1.22	1.19	61	57	55	46
- **manual/mechanical airway clearance techniques (e.g., assistive devices, assistive cough, incentive spirometer, flutter valve, ~~postural drainage,~~ percussion, vibration)**	419	500	820	828	3.19	2.77	2.85	2.82	1.06	1.24	1.26	1.25	73	58	56	47
- techniques to maximize ventilation and perfusion (e.g., positioning, active cycle breathing, autogenic drainage, paced breathing, pursed lip breathing)	381	500	820	828	3.45	3.13	3.10	3.08	1.04	1.21	1.25	1.22	81	70	66	60
- mechanical repositioning for vestibular dysfunction	391	500	820	828	3.33	3.21	3.21	3.15	0.94	1.16	1.19	1.19	82	79	73	70
- habituation/adaptation exercises for vestibular dysfunction	384	500	820	828	3.30	3.20	3.24	3.15	0.94	1.13	1.19	1.21	81	81	76	71
- **postural drainage**				828				2.50				1.21				40
Functional Training																
Recommend barrier accommodations or modifications (e.g., ramps, grab bars, raised toilet, environmental control units)	414	500	820	828	3.92	3.93	3.80	3.67	0.86	1.17	1.23	1.21	95	89	87	86
Perform and/or train patient/client in																
- the use of environmental modifications (e.g., ramps, grab bars, raised toilet, environmental control units)	408	491	795	811	3.91	3.88	3.82	3.69	0.89	1.17	1.25	1.22	94	89	84	85
- activities of daily living (ADL) (e.g., bed mobility, transfers, household mobility, dressing, self-care, toileting, sexual relations)	419	491	795	811	4.29	4.27	4.19	4.12	0.77	0.94	1.02	1.08	98	96	93	94

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- community and leisure integration or reintegration (e.g., work/school/play)	406	491	795	811	3.75	3.81	3.80	3.91	0.92	1.04	1.08	1.08	92	92	91	92
- instrumental activities of daily living (IADL) (e.g., household chores, hobbies)	403	491	795	811	3.79	3.88	3.85	3.93	0.95	1.00	1.04	1.05	92	94	92	93
- mobility techniques	418	491	795	811	4.30	4.36	4.31	4.31	0.73	0.79	0.86	0.89	100	97	96	96
- gross motor developmental progression			795	811			3.46	3.51			1.30	1.28			77	72
- fall prevention and fall recovery strategies	420	491	795	811	4.43	4.55	4.43	4.37	0.68	0.73	0.88	0.92	99	97	95	95
- behavior modification and strategies that enhance functioning (e.g., energy conservation, pacing, pre-activity planning, reminder schedules)	383	491	795	811	3.74	3.95	3.86	3.80	0.88	0.99	1.04	1.12	92	95	93	93
Manual Therapy Techniques																
Perform manual lymphatic drainage	315	491	779	805	2.78	2.66	2.61	2.58	1.14	1.20	1.22	1.17	55	43	38	36
Perform dry needling	295	491	779	805	**2.27**	2.90	2.89	2.91	1.18	1.37	1.44	1.39	38	35	32	32
Perform spinal and peripheral manual traction	356	491	779	805	3.51	3.15	3.16	3.13	0.96	1.19	1.28	1.21	87	76	66	70
Perform and/or train patient/client/caregiver in soft tissue mobilization (e.g., connective tissue massage, therapeutic massage, foam rolling)	384	491	779	804	3.74	3.46	3.38	3.45	0.95	1.20	1.20	1.19	89	86	82	85
Perform instrument-assisted soft tissue mobilization	337	491	779	804	3.06	3.29	3.12	3.21	1.13	1.27	1.28	1.26	68	69	64	70
Perform peripheral joint range of motion	392	491	779	804	4.23	4.12	3.98	4.02	0.82	1.03	1.05	1.03	97	95	91	94
Perform peripheral mobilization/manipulation (thrust)	347	485	774	798	3.45	3.13	3.06	2.99	1.15	1.36	1.37	1.34	79	60	61	61
Perform peripheral mobilization (non-thrust)	369	485	774	798	3.96	3.81	3.68	3.68	1.00	1.21	1.29	1.23	91	80	76	80
Perform spinal mobilization/manipulation (thrust)	347	485	773	798	3.52	3.25	3.13	3.08	1.12	1.34	1.38	1.32	82	64	60	62

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Perform spinal mobilization (non-thrust)	333	485	774	798	3.72	3.77	3.64	3.63	1.05	1.20	1.31	1.26	87	78	73	76
Perform cervical spinal manipulation (thrust)	288	485	774	798	2.98	2.89	2.77	2.71	1.20	1.37	1.40	1.36	64	48	50	51
Perform thoracic and lumbar spinal manipulation (thrust)	312	485	774	798	3.40	3.37	3.23	3.19	1.15	1.35	1.38	1.32	78	65	63	64
Apply taping for																
- neuromuscular reeducation	340	480	760	792	3.15	3.04	2.96	2.85	0.99	1.17	1.17	1.20	75	75	73	74
- lymphatic drainage	279	480	761	792	2.61	2.59	**2.50**	**2.45**	1.06	1.15	1.19	1.15	51	40	39	39
- pain management	325	480	760	792	2.96	3.01	2.83	2.77	1.00	1.23	1.20	1.17	69	70	66	70
Equipment & Devices																
Fabricate, apply, and/or adjust																
- adaptive devices (e.g., utensils, seating and positioning devices, steering wheel devices)	309	480	760	791	3.25	3.17	3.06	2.97	1.11	1.27	1.26	1.25	75	56	51	51
- protective devices (e.g., braces, cushions, helmets, protective taping)	327	480	760	791	3.35	3.38	3.21	3.14	1.00	1.20	1.17	1.20	80	69	65	63
- supportive devices (e.g., compression garments, corsets, elastic wraps, neck collars, serial casts, short-stretch bandages)	333	480	760	791	3.30	3.36	3.20	3.08	1.01	1.22	1.15	1.19	78	71	65	64
- orthotic devices (e.g., braces, shoe inserts, splints)	353	480	760	791	3.48	3.54	3.37	3.39	0.92	1.14	1.16	1.18	87	82	77	75
Apply and/or adjust																
- assistive devices/technologies (e.g., canes, crutches, walkers, wheelchairs, tilt tables, standing frames)	353	476	750	777	4.23	4.52	4.45	4.33	0.76	0.80	0.88	0.95	99	94	89	92
- prosthetic devices/technologies (e.g., lower-extremity and upper-extremity prostheses, microprocessor-controlled prosthetic devices)	278	476	750	777	3.26	3.57	3.29	3.27	1.07	1.15	1.26	1.27	75	64	63	59

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- mechanical neuromuscular re-education devices/technologies (e.g., weighted vests, therapeutic suits, body weight supported treadmill)	266	476	750	777	2.97	3.26	3.17	3.11	1.03	1.31	1.34	1.35	67	54	54	53
- prescribed oxygen during interventions	300	476	750	777	3.76	3.77	3.59	3.50	1.07	1.25	1.32	1.35	88	62	59	54
Train patient/client/caregiver in the use of																
- adaptive devices (e.g., utensils, seating and positioning devices, steering wheel devices)	285	465	733	765	3.27	3.39	3.24	3.27	1.00	1.31	1.29	1.35	81	56	51	50
- assistive devices/technologies (e.g., canes, crutches, walkers, wheelchairs, tilt tables, standing frames)	352	465	733	765	4.22	4.49	4.34	4.29	0.82	0.83	0.97	0.98	98	88	85	89
- orthotic devices (e.g., braces, shoe inserts, splints)	341	465	733	765	3.67	3.88	3.85	3.74	0.89	1.11	1.13	1.15	92	86	80	83
- prosthetic devices/technologies (e.g., lower-extremity and upper-extremity prostheses, microprocessor-controlled prosthetic devices)	271	465	733	765	3.21	3.56	3.35	3.33	1.08	1.22	1.24	1.28	74	58	57	54
- protective devices (e.g., braces, cushions, helmets, protective taping)	309	465	733	765	3.30	3.66	3.51	3.46	0.96	1.16	1.16	1.24	82	70	67	64
- supportive devices (e.g., compression garments, corsets, elastic wraps, neck collars, serial casts, short-stretch bandages)	313	465	733	765	3.27	3.55	3.44	3.35	0.96	1.20	1.19	1.23	79	72	69	68
- mechanical neuromuscular re-education devices/technologies (e.g., weighted vests, therapeutic suits, body weight supported treadmill)	218	465	733	765	2.83	3.23	3.21	3.13	1.02	1.33	1.30	1.33	59	50	52	50

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Integumentary Repair & Protection Techniques																
Perform and/or train patient/client/caregiver in																
- nonselective debridement (e.g., removal of nonselective areas of devitalized tissue)	204	460	725	758	2.74	2.61	**2.48**	2.52	1.10	1.29	1.29	1.36	53	25	20	17
- selective enzymatic or autolytic debridement (e.g., removal of specific areas of devitalized tissue)	199	460	725	758	2.71	2.62	**2.49**	**2.40**	1.11	1.25	1.36	1.34	52	24	18	15
- application of topical agents (e.g., cleansers, creams, moisturizers, ointments, sealants) and dressings (e.g., hydrogels, wound coverings)	224	460	725	758	2.85	2.83	2.65	2.59	1.09	1.17	1.27	1.31	58	37	29	26
- desensitization techniques (e.g., brushing, tapping, use of textures)	289	460	725	758	3.10	3.02	2.96	2.98	0.96	1.08	1.16	1.12	73	65	57	64
- hyperbaric therapy	189	460	725	758	**2.30**	**2.17**	**2.16**	**2.25**	1.11	1.03	1.25	1.29	37	17	13	12
- negative pressure wound therapy	195	460	725	758	2.54	**2.46**	**2.35**	**2.41**	1.12	1.20	1.29	1.28	46	22	16	16
Perform sharp debridement (e.g., removal of specific areas of devitalized tissue)	195	460	725	758	2.67	2.54	**2.44**	**2.33**	1.12	1.28	1.30	1.38	50	22	19	13
Recommend topical agents (e.g., pharmacological to physician, over-the-counter to patient) and dressings (e.g., ~~hydrogels,~~ negative pressure wound therapy, wound coverings)	221	460	725	758	2.76	2.69	2.61	**2.42**	1.11	1.14	1.29	1.27	54	36	27	21
Therapeutic Modalities																
Perform and/or train patient/client/caregiver in																
- biofeedback therapy (e.g., relaxation techniques, muscle reeducation, EMG)	265	458	712	746	3.35	3.26	3.03	3.14	1.03	1.16	1.25	1.20	78	74	62	64
- iontophoresis	237	458	712	746	2.82	2.53	**2.36**	**2.22**	1.04	1.21	1.22	1.18	62	45	37	34
- phonophoresis	209	456	706	743	2.56	**2.29**	**2.10**	**2.03**	1.18	1.25	1.30	1.27	49	26	20	17

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- electrotherapy modalities, excluding iontophoresis (e.g., NMES, TENS, FES, interferential therapy, high-voltage pulsed current)*	289	458	712	746	3.49	3.31	3.16	3.12	1.01	1.22	1.28	1.22	84	78	68	73
- cryotherapy (e.g., cold pack, ice massage, vapocoolant spray)	306	458	712	746	3.62	3.46	3.36	3.20	0.98	1.17	1.23	1.20	87	85	76	78
- hydrotherapy using contrast baths/pools	201	458	712	746	2.69	2.73	**2.38**	**2.31**	1.22	1.32	1.32	1.34	50	34	29	25
- hydrotherapy (e.g., aquatic exercise, underwater treadmill)	215	458	712	746	3.01	3.03	2.91	2.85	1.08	1.26	1.31	1.36	69	44	36	32
- phototherapy (laser light)	185	458	712	746	**2.26**	**2.23**	**2.08**	**2.10**	1.17	1.20	1.28	1.24	36	25	19	20
- monochromatic infrared agent procedures (e.g., light emitting diodes [LEDs])	182	456	706	743	**2.13**	**2.00**	**1.86**	**1.89**	1.12	1.03	1.16	1.21	34	19	13	12
- ultrasound procedures	262	456	706	743	3.08	2.59	**2.49**	**2.20**	1.17	1.28	1.36	1.21	69	53	41	39
- diathermy	188	456	706	743	**2.24**	**2.14**	**2.03**	**1.86**	1.19	1.23	1.32	1.20	37	21	16	14
- dry heat thermotherapy (e.g., Fluidotherapy)	189	456	706	743	**2.31**	**2.18**	**2.03**	**1.87**	1.15	1.20	1.18	1.14	39	22	20	16
- hot pack thermotherapy	292	456	706	743	3.39	3.12	3.15	2.90	1.00	1.21	1.26	1.22	83	75	67	68
- paraffin bath thermotherapy	201	456	706	743	2.60	2.63	**2.37**	**2.31**	1.21	1.26	1.25	1.28	50	37	29	27
- shockwave therapy	173	456	706	743	**2.01**	**2.12**	**1.86**	**1.86**	1.14	1.17	1.24	1.19	29	16	12	12
Mechanical Modalities																
Apply and/or train patient/client/caregiver in																
- intermittent pneumatic compression	206	455	704	740	2.63	2.89	2.77	2.73	1.18	1.21	1.33	1.32	51	40	33	33
- assisted movement devices (e.g., dynamic splint, continuous passive motion devices)	251	455	704	740	2.90	2.90	2.69	2.68	1.05	1.20	1.28	1.20	63	53	45	44
- mechanical spinal traction	243	455	704	740	3.17	2.98	2.74	2.75	1.09	1.24	1.30	1.19	75	53	45	46

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Non-procedural Interventions																
Communication																
Discuss physical therapy evaluation findings, interventions, goals, prognosis, discharge planning, and plan of care with																
- physical therapists, physical therapist assistants, and/or support staff	311	454	702	739	4.67	4.79	4.71	4.66	0.60	0.54	0.66	0.66	99	91	85	88
- interprofessional/interdisciplinary team members	310	454	702	739	4.60	4.63	4.58	4.48	0.62	0.70	0.78	0.85	99	90	84	86
- patient/client/caregiver	313	454	702	739	4.73	4.85	4.81	4.80	0.51	0.42	0.51	0.51	100	91	85	89
Provide written, oral, and electronic information to the patient/client and/or caregiver	312	454	702	739	4.62	4.73	4.67	4.64	0.61	0.55	0.66	0.70	99	91	85	88
Documentation																
Document																
- examination results	312	449	700	733	4.71	4.81	4.81	4.79	0.55	0.48	0.47	0.51	99	90	85	88
- evaluation to include diagnosis, goals, and prognosis	310	449	700	733	4.70	4.83	4.81	4.77	0.55	0.47	0.48	0.55	100	90	85	88
- intervention(s) and patient/client response(s) to intervention	312	449	700	733	4.72	4.84	4.82	4.80	0.53	0.43	0.49	0.51	100	90	85	89
- patient/client/caregiver education	310	449	700	733	4.65	4.76	4.79	4.77	0.58	0.55	0.49	0.54	99	90	85	89
- outcomes (e.g., discharge summary, reassessments)	311	449	700	733	4.66	4.67	4.72	4.67	0.58	0.65	0.58	0.67	99	90	85	88
- communication with the interdisciplinary/interprofessional team related to the patient/client's care	310	449	700	733	4.54	4.62	4.60	4.55	0.69	0.69	0.69	0.76	98	89	85	87
- rationale for billing and reimbursement	291	449	700	733	4.45	4.37	4.44	4.34	0.73	0.89	0.88	0.95	98	89	83	86
- disclosure and consent (e.g., disclosure of medical information, consent for treatment)	279	449	700	733	4.27	4.47	4.45	4.39	0.82	0.85	0.88	0.91	95	89	82	86
- letter of medical necessity (e.g., wheelchair, assistive equipment, disability parking placard)	251	449	700	733	3.86	4.02	3.89	3.77	0.95	1.07	1.18	1.23	91	76	70	73

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- intervention/plan of care for specialized services and settings (e.g., individual education plan, individual family service plan, vocational transition plan)	219	449	700	733	3.81	4.28	4.14	4.12	1.08	1.02	1.15	1.15	87	67	63	65
Assign billing codes for physical therapy evaluation and treatment provided	280	454	702	739	4.42	4.53	4.52	4.50	0.83	0.81	0.91	0.88	96	89	82	85
Education																
Educate patient/client and/or caregiver about																
- the patient/client's current condition and health status (e.g., nature of the condition, prognosis, potential benefits of physical therapy interventions, potential treatment outcomes)	300	446	698	732	4.60	4.84	4.82	4.78	0.57	0.41	0.46	0.50	100	89	85	88
- the role of the physical therapist and/or physical therapist assistant in patient/client management	301	446	698	732	4.56	4.75	4.73	4.71	0.62	0.55	0.57	0.58	99	89	85	88
- lifestyle and behavioral changes to promote wellness (e.g., nutrition, physical activity, tobacco cessation)	301	446	698	732	4.33	4.48	4.47	4.41	0.73	0.77	0.79	0.83	98	89	85	87
- the role of physical therapy in transitional planning (e.g., hospice, palliative care, setting changes)	264	446	698	732	3.97	4.13	4.08	4.03	0.98	1.11	1.15	1.16	91	78	72	72
Educate the healthcare team about																
- the role of the physical therapist and/or physical therapist assistant in patient/client management	291	446	698	732	4.15	4.49	4.37	4.34	0.87	0.85	0.95	0.91	95	86	83	83
- safe patient handling (e.g., injury prevention, ergonomics, use of equipment)	282	446	698	732	4.12	4.49	4.44	4.37	0.87	0.83	0.89	0.92	96	85	81	82

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Educate community groups on lifestyle and behavioral changes to promote wellness (e.g., nutrition, physical activity, tobacco cessation)	241	446	697	730	3.68	3.66	3.59	3.66	1.04	1.08	1.16	1.14	88	72	67	66
Participate in the clinical education of students	260	446	697	730	3.78	3.98	4.00	3.95	1.09	1.00	1.02	1.07	88	74	73	70
Patient/client & Staff Safety																
Emergency Procedures																
Implement emergency procedures (e.g., CPR, AED, calling a code)	224	446	697	730	4.20	4.23	4.03	4.00	0.92	0.93	1.08	1.12	94	75	78	78
Perform first aid	245	446	697	730	4.00	4.00	3.84	3.76	0.98	1.05	1.11	1.18	92	76	76	78
Implement disaster response procedures	199	446	697	730	3.68	3.74	3.65	3.66	1.11	1.12	1.17	1.20	84	68	71	71
Environmental Safety																
Perform risk assessment of the physical environment (e.g., barrier-free environment, outlets, windows, floors, lighting)	243	429	666	640	3.76	4.14	4.10	4.20	0.98	0.96	1.08	0.96	90	83	74	80
Prepare and maintain a safe working environment for performing interventions (e.g., unobstructed walkways, equipment availability)	266	429	666	640	4.17	4.40	4.44	4.40	0.91	0.86	0.85	0.87	94	86	77	82
Perform regular equipment inspections and/or maintenance (e.g., modalities, assistive devices)	248	429	666	640	3.75	3.94	4.10	3.99	1.01	1.05	1.04	1.10	88	82	71	76
Infection Control																
Perform and/or train patient/client and/or caregiver on appropriate infection control practices (e.g., universal precautions, hand hygiene, isolation, airborne precautions, equipment cleaning)	259	429	666	640	3.88	4.11	4.06	4.15	0.99	1.08	1.14	1.06	90	81	72	79
Research & Evidence-Based Practice																
Search the literature for current best evidence	280	429	665	639	4.00	4.09	4.09	4.05	0.88	0.91	0.89	0.91	96	87	80	85
Evaluate the quality of published data	268	429	665	639	3.87	3.95	3.90	3.88	0.94	0.95	1.00	1.02	93	84	78	82

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Integrate current best evidence, clinical experience, and patient values in clinical practice (e.g., clinical prediction rules, patient preference)	278	429	665	639	4.20	4.28	4.26	4.27	0.85	0.84	0.86	0.82	97	87	80	85
Design, direct, and/or participate in research activities	207	429	665	639	3.29	3.17	3.08	3.10	1.06	1.14	1.25	1.23	75	67	58	60
Compare intervention outcomes with normative data	235	429	665	639	3.62	3.60	3.59	3.60	1.06	1.06	1.08	1.08	86	78	71	75
Professional Responsibilities																
Supervise physical therapist assistant(s) and support personnel (licensed/unlicensed)	275	444	693	726	4.23	4.49	4.48	4.41	0.83	0.80	0.87	0.91	97	82	74	75
Assign tasks to other personnel (licensed/unlicensed) to assist with patient/client care	279	444	693	726	4.10	4.21	4.27	4.13	0.86	0.95	0.99	1.01	95	84	76	79
Discuss ongoing patient care with the interprofessional/interdisciplinary team members	293	444	693	726	4.26	4.55	4.54	4.43	0.81	0.76	0.75	0.84	98	88	83	86
Refer patient/client to specialists or other healthcare providers when necessary	290	444	693	726	4.18	4.52	4.46	4.41	0.79	0.71	0.79	0.83	98	88	83	87
Disclose financial interest in recommended products or services to the patient/client	208	444	693	726	3.26	3.73	3.67	3.58	1.25	1.21	1.28	1.28	73	64	60	61
Provide notice and information about alternative care when the physical therapist terminates provider relationship with the patient/client	266	444	693	726	3.59	4.01	4.07	3.91	1.02	1.04	1.05	1.06	87	80	76	79
Document transfer of patient/client care to another physical therapist (therapist of record)	247	444	693	726	3.52	3.94	3.90	3.74	1.11	1.14	1.19	1.21	82	75	73	75
Report healthcare providers that are suspected to not perform their professional responsibilities with reasonable skill and safety to the appropriate authorities	203	444	693	726	4.13	4.27	4.15	4.07	0.92	0.90	1.06	1.09	95	68	80	81

PT WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Report suspected cases of abuse to the appropriate authority	207	444	693	726	4.31	4.57	4.46	4.41	0.85	0.72	0.89	0.95	95	70	83	84
Report suspected illegal or unethical acts performed by healthcare providers to the relevant authority	195	443	691	723	4.30	4.59	4.47	4.40	0.83	0.74	0.86	0.96	95	70	83	84
Advocate for public access to physical therapy and other healthcare services	245	443	691	723	4.02	4.34	4.25	4.26	0.96	0.85	0.98	0.98	93	78	82	81
Determine own need for professional development	298	443	691	723	4.28	4.60	4.59	4.55	0.78	0.67	0.70	0.71	97	88	84	87
Participate in learning and/or development activities (e.g., journal clubs, self-directed reading, continuing competence activities) to maintain the currency of knowledge, skills, and abilities	297	443	691	723	4.22	4.46	4.45	4.45	0.82	0.78	0.82	0.81	96	88	84	86
Practice within the federal and jurisdiction regulations and professional standards	293	443	691	723	4.66	4.80	4.71	4.70	0.67	0.49	0.64	0.64	98	88	84	87
Participate in professional organizations	263	443	691	723	3.65	3.82	3.90	3.67	1.03	1.14	1.13	1.18	87	83	81	83
Perform community based screenings (e.g., fall risk, posture, musculoskeletal, flexibility, sports-specific)	241	443	691	723	3.61	3.87	3.79	3.71	1.00	1.06	1.18	1.13	88	75	74	75
Participate in performance improvement and quality reporting activities (e.g., Physician Quality Reporting System, standardized outcomes measurement, application of health informatics)	258	443	691	723	3.72	3.99	3.93	3.85	1.02	1.07	1.12	1.13	88	79	76	78

Note. Boldface mean (Red) indicates the mean importance value was less than 2.50. Light red shading indicates the 2019 mean importance value was below 2.50 (Criticality Threshold). Light orange shading indicates the 2019 mean importance value was between 2.50 (including) and 3.00 (excluding).

Table B.2. PTA Work Activity Survey Results

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
DATA COLLECTION																
Information Gathering & Synthesis																
Interview patients/clients, caregivers, and family to obtain patient/client history and current information (e.g., medical, surgical, medications, social, cultural, language preference, economic) to																
- review prior and current level of function/activity	263	264	515	281	4.21	4.55	4.54	4.58	0.84	0.76	0.74	0.66	96	99	98	99
- establish general health status	259	264	515	281	4.21	4.36	4.32	4.40	0.85	0.82	0.87	0.79	96	100	96	99
- identify red flags (e.g., fever, malaise, unexplained weight change) and contraindications	263	264	515	281	4.40	4.60	4.54	4.58	0.81	0.73	0.78	0.75	97	99	99	98
- identify patient/client's, family/caregiver's goals, values, and preferences	262	264	515	281	4.16	4.30	4.29	4.42	0.83	0.82	0.87	0.75	96	100	98	99
- determine impact of medications on plan of care (e.g., medication reconciliation, timing of intervention delivery, adherence)	262	264	515	281	3.98	3.78	3.92	3.94	0.96	1.11	1.07	1.02	92	96	93	95
Administer standardized questionnaires (e.g., pain inventory, fall risk assessment)	264	264	515	281	4.05	3.66	3.75	3.76	0.92	1.07	1.04	1.00	94	95	93	94
Review medical records (e.g., lab values, diagnostic tests, imaging, specialty reports, narrative, consults, physical therapy documentation) prior to carrying out the PT plan of care	268	264	515	281	4.42	4.10	4.14	4.12	0.76	0.96	0.98	0.99	98	98	97	96
Gather information/discuss patient/client's current health status with interprofessional/interdisciplinary team members	267	264	515	281	4.35	4.05	4.09	4.14	0.77	0.90	0.92	0.96	98	99	96	97
Identify signs/symptoms of change in patient/client's health status that require intervention by physical therapist	266	264	515	281	4.52	4.53	4.54	4.59	0.65	0.71	0.68	0.68	99	100	99	99

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Identify signs/symptoms of change in patient/client's health status that require intervention by interprofessional/interdisciplinary team members	263	264	515	281	4.40	4.39	4.38	4.46	0.75	0.84	0.80	0.80	98	98	99	98
Systems Review																
Check patient/client's current affect, cognition, communication, and learning preferences (e.g., ability to convey needs, consciousness, orientation, expected emotional/behavioral responses)	232	264	515	281	4.28	4.15	4.24	4.22	0.72	0.94	0.88	0.88	99	99	98	98
Recognize changes in status of the																
- patient/client's quality of speech, hearing, and vision (e.g., dysarthria, pitch/tone, use of corrective lenses, use of hearing aids)	228	256	497	271	4.18	3.77	3.83	3.98	0.84	1.08	1.07	1.04	96	91	89	92
- vestibular system (e.g., dizziness, vertigo)	232	256	497	271	4.21	4.02	4.00	4.13	0.77	0.94	0.98	0.95	97	93	91	93
- gastrointestinal system (e.g., difficulty swallowing, nausea, change in appetite/diet, change in bowel function)	227	256	497	271	3.89	3.40	3.40	3.49	0.94	1.14	1.15	1.11	93	89	81	87
- genitourinary system (e.g., changes in bladder function, catheter complications)	215	256	497	271	3.78	3.43	3.36	3.44	1.07	1.18	1.13	1.22	89	84	80	82
- reproductive system (e.g., sexual and/or menstrual dysfunction, menopause status)	196	256	497	271	2.78	2.51	**2.45**	2.62	1.42	1.18	1.16	1.24	54	62	57	66
- cardiovascular/pulmonary system (e.g., blood pressure, heart rate, respiration rate)	231	256	497	271	4.54	4.40	4.31	4.42	0.63	0.82	0.91	0.85	100	96	95	94
- lymphatic system (e.g., primary and/or secondary edema)	230	256	497	271	4.07	3.84	3.74	3.86	0.91	0.96	1.07	1.03	95	91	88	88

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- integumentary system (e.g., presence of scar formation, skin integrity, discoloration)	232	256	497	271	4.16	4.00	3.92	3.99	0.83	0.96	1.00	1.06	95	96	94	93
- musculoskeletal system (e.g., gross symmetry, strength, range of motion)	233	256	497	271	4.52	4.64	4.62	4.66	0.62	0.62	0.65	0.60	100	97	97	96
- neuromuscular system (e.g., gross coordination, motor function, balance, locomotion, gross sensory function)	223	256	497	271	4.49	4.70	4.63	4.66	0.63	0.59	0.62	0.61	100	97	97	96
Tests & Measures																
Cardiovascular/Pulmonary																
Perform tests and measures of																
- cardiovascular function (e.g., blood pressure, heart rate, heart sounds)	210	252	490	265	4.33	4.31	4.20	4.28	0.83	0.93	0.98	0.92	97	93	92	91
- pulmonary function (e.g., respiratory rate, breathing patterns, breath sounds, chest excursion)	200	252	490	265	4.08	4.09	3.97	3.94	0.98	1.06	1.02	1.08	91	88	87	90
- perfusion and gas exchange (e.g., oxygen saturation)	197	252	490	265	4.07	4.09	4.02	4.02	1.09	1.08	1.05	1.18	91	86	86	84
- peripheral circulation (e.g., capillary refill, blood pressure in upper versus lower extremities)	182	252	490	265	3.45	3.48	3.42	3.52	1.19	1.24	1.15	1.13	78	77	80	81
- critical limb ischemia (e.g., peripheral pulses, skin perfusion pressure)	178	252	490	265	3.48	3.39	3.35	3.44	1.17	1.26	1.20	1.21	76	74	76	78
- physiological responses to position change (e.g., orthostatic hypotension, skin color, blood pressure, heart rate)	206	252	490	265	4.08	4.24	4.17	4.14	0.92	0.90	0.93	1.00	93	92	91	91
- aerobic capacity under maximal and submaximal conditions (e.g., endurance, exercise tolerance, metabolic equivalents, perceived exertion)	197	252	490	265	3.69	3.82	3.94	4.07	1.18	1.11	1.03	1.01	83	87	88	86

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Anthropometric																
Perform tests and measures of																
- body composition (e.g., percent body fat, lean muscle mass)	161	252	490	265	2.72	2.55	2.58	2.63	1.39	1.20	1.13	1.15	53	62	63	66
- body dimensions (e.g., height, weight, girth, limb length, head circumference/shape)	183	252	490	265	3.10	2.66	2.70	2.70	1.22	1.20	1.10	1.23	68	70	70	67
Quantify and qualify edema (e.g., pitting, volume, circumference)	202	252	490	265	3.51	3.47	3.42	3.53	1.02	1.12	1.07	1.15	86	88	84	84
Arousal, Attention, & Cognition																
Perform tests and measures of																
- arousal and orientation (e.g., level of consciousness, time, person, place, situation)	186	246	472	256	3.80	3.89	3.78	3.89	1.05	1.11	1.17	1.11	90	83	80	79
- attention and cognition (e.g., ability to process commands, delirium, confusion)	181	246	472	256	3.78	3.96	3.90	3.93	1.01	1.01	1.03	1.10	89	86	85	82
- communication (e.g., expressive and receptive skills, following instructions)	178	246	472	256	3.72	3.93	3.90	4.00	1.03	1.04	1.00	1.01	89	88	87	84
- recall (including memory and retention)	173	246	472	256	3.59	3.63	3.51	3.63	1.13	1.07	1.09	1.07	84	84	83	80
Nerve Integrity																
Perform tests and measures of																
- cranial nerve integrity (e.g., facial asymmetry, oculomotor function, hearing)	155	246	472	256	3.27	3.36	3.20	3.40	1.27	1.19	1.15	1.19	72	73	70	73
- spinal nerve integrity (e.g., dermatome, myotome)	169	246	472	256	3.46	3.60	3.46	3.64	1.16	1.08	1.17	1.09	78	81	76	80
- peripheral nerve integrity (e.g., sensation, strength)	185	246	472	256	3.75	3.88	3.79	3.93	0.98	1.01	1.01	1.00	89	88	82	86
- neural provocation (e.g., tapping, tension, stretch)	169	246	472	256	3.47	3.61	3.43	3.60	1.09	1.03	1.13	1.15	83	87	79	78

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Environmental & Community Integration/Reintegration (Home, Work, Job, School, Play, & Leisure)																
Collect data on patient/client's ability to perform activities of daily living (ADL) (e.g., bed mobility, transfers, household mobility, dressing, self-care, toileting, sexual relations)	196	242	460	247	4.37	4.38	4.38	4.43	0.71	0.90	0.88	0.84	98	90	86	85
Collect data on patient/client's ability to perform instrumental activities of daily living (IADL) (e.g., household chores, hobbies)	195	242	460	247	4.04	4.07	4.09	4.16	0.95	1.02	0.99	0.97	92	89	86	84
Collect data on patient/client's ability to perform skills needed for integration or reintegration into the community, work, or school	175	242	460	247	3.89	4.09	4.16	4.15	1.03	0.96	0.97	0.95	91	89	85	86
Collect data on barriers (e.g., social, economic, physical, psychological, environmental, work conditions and activities) to home, community, work, or school integration/reintegration	171	242	460	247	3.78	3.88	3.97	3.92	1.03	1.05	1.07	1.05	89	86	84	82
Collect data on safety in home, community, work, or school environments	176	242	460	247	3.89	4.05	4.14	4.08	1.02	1.04	0.99	1.00	90	88	84	82
Collect data on patient/client's ability to participate in activities with or without the use of devices, equipment, or technologies	181	242	460	247	4.06	4.19	4.30	4.24	0.87	0.95	0.82	0.89	94	90	87	86
Ergonomics and Body Mechanics																
Perform tests and measures of																
- ergonomics and body mechanics during functional activities	183	240	452	244	3.95	4.36	4.37	4.33	0.96	0.88	0.79	0.88	90	91	87	85
- postural alignment and position (static and dynamic)	183	240	452	244	4.08	4.43	4.43	4.38	0.88	0.77	0.78	0.78	93	91	87	86

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Functional Mobility, Balance, & Vestibular																
Perform tests and measures of																
- balance (dynamic and static) with or without the use of specialized equipment	185	240	452	244	4.30	4.63	4.63	4.60	0.67	0.62	0.57	0.60	99	91	87	86
- gait and locomotion (e.g., ambulation, wheelchair mobility) with or without the use of specialized equipment	185	240	452	244	4.42	4.70	4.68	4.67	0.63	0.58	0.57	0.62	99	90	87	86
- mobility during functional activities and transitional movements (e.g., transfers, bed mobility)	187	240	452	244	4.39	4.66	4.63	4.60	0.67	0.63	0.64	0.63	98	89	87	86
- vestibular function (e.g., peripheral dysfunction, central dysfunction, BPPV)	159	240	452	244	3.62	3.76	3.82	3.78	1.10	1.12	1.06	1.05	82	80	78	78
Integumentary Integrity																
Observe skin characteristics (e.g., continuity of skin color, sensation, temperature, texture, turgor)	173	239	450	244	3.92	3.73	3.81	3.68	0.84	1.05	1.05	1.03	95	88	81	82
Collect data on wound characteristics (e.g., tissue involvement, depth, tunneling, burn classification, ulcer/injury classification)	139	239	450	244	3.61	3.22	3.23	3.26	1.19	1.25	1.29	1.24	84	71	58	61
Observe scar tissue characteristics (e.g., banding, pliability, sensation, and texture)	162	239	450	244	3.59	3.30	3.26	3.33	1.04	1.20	1.20	1.15	86	77	69	74
Collect data on patient/client's activities, positioning, and postures that produce or relieve trauma to the skin	163	239	450	244	3.87	3.83	3.83	3.88	0.99	1.12	1.13	1.11	91	80	75	73
Identify devices and equipment that produce or relieve trauma to the patient/client's skin	164	239	450	244	3.79	3.79	3.74	3.79	1.02	1.12	1.15	1.15	90	79	73	73

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Joint Integrity & Range of Motion																
Perform tests and measures of																
- spinal joint stability (e.g., ligamentous integrity, joint structure)	146	237	444	241	3.59	3.78	3.74	3.83	1.20	1.09	1.11	1.07	83	76	71	75
- peripheral joint stability (e.g., ligamentous integrity, joint structure)	157	237	444	241	3.71	3.96	3.88	3.93	1.06	1.01	1.05	1.03	87	81	77	79
- spinal joint mobility (e.g., glide, end feel)	143	237	444	241	3.62	3.62	3.67	3.75	1.21	1.22	1.14	1.11	83	73	71	74
- peripheral joint mobility (e.g., glide, end feel)	163	237	444	241	3.83	3.88	3.89	4.01	1.01	1.09	1.07	1.00	88	81	77	81
- range of motion (e.g., passive, active, functional)	180	237	444	241	4.30	4.54	4.54	4.55	0.75	0.71	0.72	0.69	99	89	85	85
- flexibility (e.g., muscle length, soft tissue extensibility)	157	237	444	241	4.00	4.35	4.36	4.41	0.85	0.87	0.83	0.81	95	88	84	85
Motor Function																
Perform tests and measures of																
- muscle tone (e.g., hypertonicity, hypotonicity, dystonia)	152	235	442	240	3.85	3.97	3.94	4.00	0.91	1.06	0.99	1.00	93	83	79	80
- dexterity, coordination, and agility (e.g., rapid alternating movement, finger to nose)	145	235	442	240	3.72	3.68	3.62	3.70	0.99	1.13	1.10	1.09	88	80	77	79
- ability to initiate, modify and control movement patterns and postures (e.g., catching a ball, gait)	164	235	442	240	4.08	4.23	4.20	4.25	0.81	0.89	0.91	0.82	97	88	83	84
- ability to change movement performance with practice (e.g., motor learning)	156	235	442	240	3.90	4.17	4.15	4.17	0.84	0.91	0.88	0.89	96	87	83	83
- movement quality (e.g., purpose, precision, efficiency, biomechanics, kinematics)	151	235	442	240	3.90	4.11	4.13	4.20	0.89	0.93	0.90	0.90	95	88	83	84

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Muscle Performance																
Perform tests and measures of																
- muscle strength, power, and endurance without specialized equipment (e.g., manual muscle test, functional strength testing)	162	235	442	240	4.12	4.30	4.36	4.42	0.83	0.92	0.80	0.76	96	87	84	83
- muscle strength, power, and endurance with specialized equipment (e.g., isokinetic testing, dynamometry)	137	235	442	240	3.60	3.74	3.81	3.95	1.21	1.27	1.19	1.18	82	71	70	72
Neuromotor Development & Sensory Integration																
Perform tests and measures of																
- acquisition and evolution of motor skills throughout the lifespan	114	235	442	240	3.19	3.44	3.51	3.75	1.34	1.18	1.16	1.09	69	74	68	70
- sensorimotor integration	125	235	442	240	3.24	3.52	3.54	3.63	1.30	1.11	1.06	1.06	68	77	72	75
- developmental reflexes and reactions (e.g., asymmetrical tonic neck reflex, righting reactions)	115	235	442	240	3.29	3.42	3.32	3.64	1.26	1.22	1.20	1.14	70	67	63	67
Reflex Integrity																
Perform tests and measures of																
- deep tendon/muscle stretch reflexes (e.g., quadriceps, biceps)	134	233	437	237	3.40	3.53	3.42	3.54	1.10	1.18	1.18	1.14	77	73	70	71
- upper motor neuron integrity (e.g., Babinski reflex, Hoffman sign)	119	233	436	237	3.22	3.28	3.09	3.28	1.26	1.22	1.25	1.19	70	62	57	65
- superficial reflexes and reactions (e.g., cremasteric reflex, abdominal reflexes)	108	233	436	237	3.07	3.11	2.96	3.12	1.36	1.26	1.27	1.19	65	59	54	62
Pain & Sensory Integrity																
Perform tests and measures of																
- pain (e.g., location, intensity, frequency, central, peripheral, psychogenic)	148	233	436	237	4.01	4.38	4.30	4.35	0.88	0.87	0.88	0.79	96	84	81	83

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- deep sensation (e.g., proprioception, kinesthesia, pressure)	143	233	436	237	3.51	3.76	3.59	3.82	1.03	1.14	1.16	1.07	85	74	72	76
- superficial sensation (e.g., touch, temperature discrimination)	147	233	436	237	3.50	3.63	3.59	3.66	0.93	1.17	1.15	1.11	86	76	72	79
Plan of Care & Goals																
Modify and/or progress within the plan of care based on patient/client's resources (e.g., financial, transportation, time, insurance benefits, available technologies)	156	232	434	235	4.18	4.25	4.30	4.32	0.96	0.97	0.96	0.97	94	82	77	79
INTERVENTIONS																
Procedural Interventions																
Therapeutic Exercise/Therapeutic Activities																
Perform and/or train patient/client/caregiver in																
- aerobic capacity/endurance conditioning	269	293	534	386	4.10	4.00	4.12	4.13	0.80	0.97	0.99	1.00	96	98	96	99
- balance, coordination, and agility activities	278	293	534	386	4.55	4.60	4.67	4.68	0.57	0.64	0.60	0.58	100	100	100	100
- body mechanics and postural stabilization techniques	279	293	534	386	4.49	4.58	4.57	4.60	0.62	0.68	0.70	0.72	100	100	100	99
- flexibility techniques	276	293	534	386	4.12	3.84	3.83	3.91	0.80	1.03	1.05	1.06	98	98	97	98
- neuromotor techniques (e.g., movement pattern training, neuromuscular education or reeducation)	276	293	534	386	4.16	4.06	4.14	4.15	0.80	0.99	0.93	0.91	97	98	99	99
- relaxation techniques	271	293	534	386	3.62	3.36	3.36	3.34	0.91	1.13	1.17	1.17	91	94	94	94
- strength, power, and endurance exercises	273	293	534	386	4.46	4.26	4.35	4.34	0.66	0.80	0.86	0.87	99	100	99	99
- genitourinary management (e.g., pelvic floor exercises, bladder strategies)	249	293	533	386	3.06	2.67	2.68	2.80	1.18	1.23	1.20	1.22	65	55	57	53

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- gastrointestinal management (e.g., bowel strategies, positioning to avoid reflux)	240	293	533	386	2.85	**2.42**	2.54	2.69	1.18	1.15	1.19	1.27	55	48	51	45
- **manual/mechanical airway clearance techniques (e.g., assistive devices, assistive cough, incentive spirometer, flutter valve, ~~postural drainage,~~ percussion, vibration)**	247	293	533	386	3.17	2.71	2.75	2.96	1.26	1.33	1.27	1.37	65	54	54	47
- techniques to maximize ventilation and perfusion (e.g., positioning, active cycle breathing, autogenic drainage, paced breathing, pursed-lip breathing)	228	293	533	386	3.58	3.09	3.17	3.21	1.16	1.22	1.25	1.23	84	73	69	65
- mechanical repositioning for vestibular dysfunction	211	293	533	386	3.13	2.78	2.88	2.99	1.27	1.15	1.25	1.20	68	59	62	58
- habituation/adaptation exercises for vestibular dysfunction	206	293	533	386	3.14	2.81	3.01	2.99	1.26	1.19	1.25	1.20	67	64	65	61
- **postural drainage**				386				2.62				1.28				40
Functional Training																
Perform and/or train patient/client in																
- the use of environmental modifications (e.g., ramps, grab bars, raised toilet, environmental control units)	236	289	525	375	4.13	4.09	3.97	3.99	0.86	1.12	1.25	1.26	96	88	86	83
- activities of daily living (ADL) (e.g., bed mobility, transfers, household mobility, dressing, self-care, toileting, sexual relations)	245	289	525	375	4.43	4.35	4.30	4.29	0.77	0.98	1.05	1.07	98	95	93	92
- community and leisure integration or reintegration (e.g., work/school/play)	224	289	525	375	3.76	3.68	3.73	3.79	1.06	1.07	1.18	1.20	90	89	87	87
- Instrumental Activities of Daily Living (IADL) (e.g., household chores, hobbies)	229	289	525	375	3.86	3.87	3.93	3.98	0.98	1.06	1.08	1.07	92	92	92	92
- mobility techniques	245	289	525	375	4.33	4.30	4.26	4.37	0.79	0.82	0.89	0.81	98	97	97	97

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- gross motor developmental progression			525	375			3.68	3.83			1.15	1.14			87	85
- fall prevention and fall recovery strategies	242	289	525	375	4.45	4.55	4.45	4.46	0.72	0.68	0.89	0.88	99	98	96	95
- behavior modification and strategies that enhance functioning (e.g., energy conservation, pacing, pre-activity planning, reminder schedules)	237	289	525	375	4.04	3.91	3.83	3.86	0.88	1.09	1.13	1.15	95	90	91	90
Manual Therapy Techniques																
Perform manual lymphatic drainage	174	285	518	365	3.00	2.61	2.61	2.68	1.29	1.14	1.22	1.24	64	44	40	38
Perform spinal manual traction	186	285	518	365	3.45	3.12	3.12	3.16	1.26	1.24	1.26	1.23	78	63	61	62
Perform peripheral manual traction	183	285	518	365	3.34	3.11	3.02	3.09	1.33	1.26	1.28	1.21	72	63	59	61
Perform and/or train patient/client/caregiver in soft tissue mobilization (e.g., connective tissue massage, therapeutic massage, foam rolling)	227	285	517	365	3.90	3.53	3.56	3.64	0.93	1.28	1.23	1.23	95	84	82	81
Perform instrument-assisted soft tissue mobilization	193	285	517	365	3.42	3.32	3.41	3.50	1.19	1.25	1.30	1.30	79	69	71	67
Perform peripheral joint range of motion	227	285	517	365	4.31	4.13	4.08	4.13	0.81	1.08	1.07	1.03	97	91	88	86
Perform peripheral mobilization/manipulation (thrust)	166	285	517	365	3.06	2.92	2.96	3.15	1.47	1.37	1.37	1.29	63	41	40	42
Perform peripheral mobilization (non-thrust)	188	285	517	365	3.55	3.45	3.38	3.52	1.22	1.33	1.37	1.27	81	67	65	69
Perform spinal mobilization/manipulation (thrust)	153	285	517	365	2.88	2.56	2.60	2.78	1.44	1.34	1.29	1.29	58	32	32	33
Perform spinal mobilization (non-thrust)	170	285	517	365	3.27	3.26	3.21	3.31	1.39	1.36	1.39	1.33	70	57	55	55
Apply taping for																
- neuromuscular reeducation	176	284	514	364	3.26	4.10	4.09	3.94	1.13	1.04	1.13	1.21	77	81	80	78
- lymphatic drainage	150	284	514	364	2.87	3.01	2.83	3.00	1.35	1.34	1.23	1.28	61	47	45	45
- pain management	174	284	514	364	3.22	4.06	4.10	3.97	1.17	1.14	1.04	1.19	74	82	83	78

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Equipment & Devices																
Apply and/or adjust																
- adaptive devices (e.g., utensils, seating and positioning devices, steering wheel devices)	187	283	504	361	3.39	3.65	3.59	3.58	1.21	1.30	1.33	1.32	78	72	67	65
- protective devices (e.g., braces, cushions, helmets, protective taping)	203	283	504	361	3.65	3.70	3.65	3.66	1.08	1.18	1.18	1.22	87	83	81	78
- supportive devices (e.g., compression garments, corsets, elastic wraps, neck collars serial casts, short-stretch bandages)	207	283	504	361	3.57	3.57	3.53	3.57	1.05	1.16	1.26	1.21	85	84	78	77
- orthotic devices (e.g., braces, shoe inserts, splints)	211	283	503	361	3.82	3.91	3.81	3.78	0.97	1.04	1.12	1.16	91	90	87	85
- assistive devices/technologies (e.g., canes, crutches, walkers, wheelchairs, tilt tables, standing frames)	221	283	504	361	4.29	4.57	4.49	4.48	0.75	0.74	0.84	0.89	99	96	93	92
- prosthetic devices/technologies (e.g., lower-extremity and upper-extremity prostheses, microprocessor-controlled prosthetic devices)	179	283	504	361	3.46	3.64	3.62	3.53	1.18	1.19	1.25	1.25	77	74	72	67
- mechanical neuromuscular re-education devices/technologies (e.g., weighted vests, therapeutic suits, body weight supported treadmill)	149	283	504	361	2.99	3.12	3.13	3.12	1.33	1.35	1.42	1.40	62	50	51	47
- prescribed oxygen during interventions	186	283	504	361	4.02	4.02	3.98	3.84	1.13	1.20	1.22	1.30	90	70	66	63
Train patient/client/caregiver in the use of																
- adaptive devices (e.g., utensils, seating and positioning devices, steering wheel devices)	167	277	493	357	3.49	3.60	3.59	3.60	1.20	1.33	1.35	1.31	81	63	62	60

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- assistive devices/technologies (e.g., canes, crutches, walkers, wheelchairs, tilt tables, standing frames)	206	276	493	357	4.35	4.55	4.50	4.49	0.72	0.76	0.87	0.84	100	92	89	91
- orthotic devices (e.g., braces, shoe inserts, splints)	193	276	493	357	3.82	4.04	3.99	4.06	0.91	1.02	1.12	1.10	94	88	85	84
- prosthetic devices/technologies (e.g., lower-extremity and upper-extremity prostheses, microprocessor-controlled prosthetic devices)	154	276	493	357	3.40	3.65	3.61	3.73	1.28	1.22	1.34	1.25	77	66	68	64
- protective devices (e.g., braces, cushions, helmets, protective taping)	175	276	493	357	3.50	3.62	3.64	3.68	1.12	1.24	1.29	1.23	81	74	74	74
- supportive devices (e.g., compression garments, corsets, elastic wraps, neck collars, serial casts, short-stretch bandages)	187	276	493	357	3.45	3.66	3.65	3.67	1.05	1.14	1.27	1.18	86	79	74	77
- mechanical neuromuscular re-education devices/technologies (e.g., weighted vests, therapeutic suits, body weight supported treadmill)	133	276	493	357	2.83	3.31	3.25	3.22	1.36	1.35	1.46	1.45	56	48	50	46
Integumentary Repair & Protection Techniques																
Perform and/or train patient/client/caregiver in																
- nonselective debridement (e.g., removal of nonselective areas of devitalized tissue)	127	272	492	353	2.53	2.67	**2.46**	2.61	1.44	1.35	1.32	1.29	46	21	18	19
- selective enzymatic or autolytic debridement (e.g., removal of specific areas of devitalized tissue)	122	271	491	353	**2.48**	2.65	**2.38**	2.60	1.45	1.36	1.29	1.27	43	19	18	18
- application of topical agents (e.g., cleansers, creams, moisturizers, ointments, sealants) and dressings (e.g., hydrogels, wound coverings)	135	271	491	353	2.68	2.85	2.66	2.76	1.33	1.32	1.25	1.31	49	36	35	33

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- desensitization techniques (e.g., brushing, tapping, use of textures)	159	271	491	353	2.91	2.99	2.98	3.00	1.20	1.21	1.20	1.21	62	59	57	53
- hyperbaric therapy	118	271	491	353	**2.28**	2.52	**2.19**	**2.49**	1.37	1.31	1.22	1.25	38	16	14	15
- negative pressure wound therapy	118	271	491	353	**2.28**	2.61	**2.31**	2.62	1.33	1.30	1.31	1.34	36	19	16	19
Perform sharp debridement (e.g., removal of specific areas of devitalized tissue)	117	271	491	353	**2.27**	2.64	**2.25**	2.54	1.38	1.38	1.26	1.36	34	16	16	15
Therapeutic Modalities																
Perform and/or train patient/client/caregiver in																
- biofeedback therapy (e.g., relaxation techniques, muscle reeducation, EMG)	170	270	491	352	3.41	3.42	3.36	3.49	1.05	1.21	1.31	1.21	83	68	65	68
- iontophoresis	147	270	491	352	3.01	3.02	2.76	2.89	1.30	1.39	1.38	1.37	67	51	42	45
- phonophoresis	133	270	488	352	2.82	2.85	2.62	2.70	1.40	1.38	1.39	1.43	60	32	27	29
- electrotherapy modalities, excluding iontophoresis (e.g., NMES, TENS, FES, interferential therapy, high-voltage pulsed current)*	191	270	491	352	3.93	4.05	3.98	3.86	0.98	1.15	1.16	1.22	91	80	81	78
- cryotherapy (e.g., cold pack, ice massage, vapocoolant spray)	195	270	491	352	3.87	4.01	3.87	3.91	0.97	1.12	1.18	1.16	93	86	85	82
- hydrotherapy using contrast baths/pools	126	270	491	352	2.98	2.90	2.74	3.03	1.31	1.41	1.48	1.47	62	34	32	35
- hydrotherapy (e.g., aquatic exercise, underwater treadmill)	134	270	491	352	3.13	3.31	3.18	3.25	1.30	1.38	1.50	1.42	65	41	35	35
- phototherapy (laser light)	120	270	491	352	2.58	2.58	2.65	2.74	1.39	1.26	1.46	1.40	47	27	25	29
- monochromatic infrared agent procedures (e.g., light emitting diodes [LEDs])	116	270	488	352	**2.44**	2.57	**2.29**	**2.34**	1.35	1.35	1.35	1.31	43	20	18	19
- ultrasound procedures	185	270	488	352	3.69	3.58	3.39	3.28	1.05	1.35	1.36	1.33	87	74	67	67
- diathermy	128	270	488	352	2.62	3.04	2.76	2.61	1.30	1.41	1.46	1.37	51	31	30	28
- dry heat thermotherapy (e.g., Fluidotherapy)	118	270	488	352	2.54	2.95	2.62	2.61	1.31	1.34	1.42	1.39	47	30	25	26
- hot pack thermotherapy	185	270	488	352	3.76	3.84	3.89	3.83	1.02	1.25	1.19	1.23	91	83	77	79

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- paraffin bath thermotherapy	138	270	488	352	2.80	3.12	2.89	2.98	1.29	1.38	1.44	1.38	57	40	37	37
- shockwave therapy	111	270	488	352	**2.15**	2.51	**2.20**	**2.39**	1.32	1.34	1.39	1.32	33	15	15	19
Mechanical Modalities																
Apply and/or train patient/client/caregiver in																
intermittent pneumatic compression	127	270	487	352	2.67	3.11	2.82	2.92	1.33	1.31	1.35	1.34	53	39	35	36
- assisted movement devices (e.g., dynamic splint, continuous passive motion devices)	152	270	487	352	3.13	3.15	3.13	3.03	1.24	1.32	1.29	1.38	70	53	51	46
- mechanical spinal traction	138	270	487	352	3.30	3.57	3.14	3.33	1.28	1.30	1.35	1.33	73	54	48	50
Non-procedural Interventions																
Communication																
Discuss physical therapy evaluation findings, interventions, goals, prognosis, discharge planning, and plan of care with																
- the supervising physical therapist	201	269	486	351	4.65	4.81	4.74	4.76	0.61	0.54	0.63	0.63	100	92	88	87
- interprofessional/interdisciplinary team members	194	269	486	351	4.52	4.53	4.51	4.50	0.71	0.73	0.84	0.83	99	90	87	85
- patient/client/caregiver	198	269	486	351	4.56	4.73	4.70	4.73	0.62	0.60	0.65	0.62	99	91	90	90
Provide written, oral, and electronic information to the patient/client and/or caregiver	192	269	486	351	4.43	4.60	4.57	4.59	0.80	0.75	0.81	0.73	98	90	89	89
Documentation																
Document																
- data collection results	188	268	486	350	4.41	4.45	4.44	4.49	0.85	0.87	0.88	0.85	96	90	86	86
- intervention(s) and patient/client response(s) to intervention	198	268	486	350	4.60	4.73	4.69	4.70	0.62	0.63	0.61	0.67	99	91	91	89
- patient/client/caregiver education	196	268	486	350	4.55	4.67	4.63	4.69	0.62	0.67	0.68	0.64	99	91	90	90
- communication with the interdisciplinary/interprofessional team related to the patient/client's care	194	268	486	350	4.46	4.40	4.51	4.50	0.68	0.88	0.81	0.81	99	90	89	87
- rationale for billing and reimbursement	188	268	486	350	4.44	4.32	4.42	4.40	0.84	0.96	0.88	0.96	97	87	85	83

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
- disclosure and consent (e.g., disclosure of medical information, consent for treatment)	170	268	486	350	4.21	4.26	4.32	4.35	1.00	1.01	0.98	0.99	94	85	83	82
Assign billing codes for physical therapy treatment provided	157	268	486	350	4.04	4.29	4.34	4.35	1.19	1.07	1.06	1.01	89	77	75	75
Education																
Educate patient/client and/or caregiver about																
- the patient/client's current condition and health status (e.g., nature of the condition, potential benefits of physical therapy interventions, potential treatment outcomes)	197	266	486	347	4.40	4.69	4.69	4.72	0.73	0.60	0.59	0.63	99	91	90	89
- the role of the physical therapist and/or physical therapist assistant in patient/client management	197	266	486	347	4.26	4.54	4.56	4.61	0.84	0.77	0.73	0.73	97	91	91	89
- lifestyle and behavioral changes to promote wellness (e.g., nutrition, physical activity, tobacco cessation)	194	266	486	347	4.20	4.34	4.36	4.41	0.84	0.91	0.89	0.84	97	89	90	89
- the role of physical therapy in transitional planning (e.g., hospice, palliative care, setting changes)	170	266	486	347	3.82	4.00	4.01	4.03	1.08	1.10	1.18	1.21	89	78	79	75
Educate the healthcare team about																
- the role of the physical therapist and/or physical therapist assistant in patient/client management	171	266	486	347	3.92	4.25	4.28	4.29	1.03	0.95	0.98	1.00	90	86	87	83
- safe patient handling (e.g., injury prevention, ergonomics, use of equipment)	181	266	486	347	4.13	4.46	4.63	4.68	0.89	0.85	0.71	0.69	97	86	90	89
- Educate community groups on lifestyle and behavioral changes to promote wellness (e.g., nutrition, physical activity, tobacco cessation)	140	266	483	346	3.72	3.78	3.67	3.87	1.19	1.13	1.17	1.11	85	66	67	66

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Participate in the clinical education of students	149	266	483	346	3.81	3.95	3.70	3.77	1.18	1.03	1.18	1.15	86	71	65	64
Patient/client & Staff Safety																
Emergency Procedures																
Implement emergency procedures (e.g., CPR, AED, calling a code)	144	266	483	346	4.27	4.16	4.06	4.12	0.97	1.07	1.12	1.12	94	73	80	75
Perform first aid	145	266	483	346	4.13	4.05	3.89	3.91	1.00	1.13	1.22	1.19	94	70	77	76
Implement disaster response procedures	131	266	483	346	4.02	3.88	3.70	3.69	1.08	1.18	1.22	1.20	90	65	75	67
Environmental Safety																
Perform risk assessment of the physical environment (e.g., barrier-free environment, outlets, windows, floors, lighting)	149	266	483	346	4.01	3.94	3.87	3.98	1.12	1.17	1.17	1.12	89	72	72	71
Prepare and maintain a safe working environment for performing interventions (e.g., unobstructed walkways, equipment availability)	191	266	483	346	4.38	4.37	4.34	4.43	0.78	0.93	0.95	0.86	98	85	85	83
Perform regular equipment inspections and/or maintenance (e.g., modalities, assistive devices)	171	266	483	346	4.18	4.12	4.08	4.15	0.95	1.04	1.06	1.03	95	79	78	77
Infection Control																
Perform and/or train patient/client and/or caregiver on appropriate infection control practices (e.g., universal precautions, hand hygiene, isolation, airborne precautions, equipment cleaning)	152	232	434	235	4.01	4.02	3.94	4.12	0.95	1.18	1.13	1.06	93	80	72	77
Research & Evidence-Based Practice																
Search the literature for current best evidence	160	232	434	235	3.76	3.71	3.66	3.83	1.00	1.06	1.08	1.01	88	80	75	79
Evaluate the quality of published data	147	232	434	235	3.44	3.47	3.43	3.56	1.13	1.15	1.20	1.09	78	72	67	74
Integrate current best evidence, clinical experience, and patient values in clinical practice (e.g., clinical prediction rules, patient preference)	160	232	434	235	3.84	3.91	3.91	3.88	0.99	1.04	1.05	1.01	87	80	75	79

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Design and/or direct research activities	103	232	434	235	2.80	2.84	2.82	2.90	1.37	1.22	1.19	1.23	57	48	43	48
Participate in research activities	110	232	433	235	2.94	2.70	2.79	2.85	1.34	1.24	1.18	1.24	58	45	46	47
Compare intervention outcomes with normative data	117	232	433	235	3.05	3.02	2.99	3.16	1.27	1.24	1.18	1.19	66	52	50	55
Professional Responsibilities																
Supervise support personnel (e.g., physical therapy aide/technician)	137	232	433	235	3.60	3.51	3.58	3.72	1.13	1.21	1.21	1.25	83	67	54	61
Assign tasks to other personnel (e.g., physical therapy aide/technician) to assist with patient/client care	143	232	433	235	3.57	3.42	3.44	3.62	1.20	1.20	1.22	1.23	80	69	56	64
Disclose financial interest in recommended products or services to patient/client	114	232	433	232	2.81	3.00	2.98	3.20	1.39	1.30	1.30	1.28	56	53	43	50
Communicate with the physical therapist when the expectations of the PTA are beyond their knowledge, skills, and abilities	162	232	433	232	4.48	4.58	4.60	4.61	0.65	0.72	0.73	0.71	99	86	83	82
Report healthcare providers that are suspected to not perform their professional responsibilities with reasonable skill and safety to the appropriate authorities	125	232	433	232	4.34	4.45	4.39	4.42	0.91	0.89	0.94	0.91	96	74	80	78
Report suspected cases of abuse to the appropriate authority	126	232	433	232	4.50	4.64	4.67	4.64	0.81	0.71	0.72	0.75	97	76	83	81
Report suspected illegal or unethical acts performed by healthcare providers to the relevant authority	117	232	433	232	4.44	4.62	4.61	4.60	0.93	0.71	0.77	0.78	96	75	82	80
Advocate for public access to physical therapy and other healthcare services	124	231	431	231	3.94	3.96	3.98	4.04	1.14	1.08	1.11	1.07	88	74	70	74
Determine own need for professional development	163	231	431	231	4.21	4.27	4.36	4.33	0.81	0.90	0.86	0.85	97	85	83	81

PTA WAs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Participate in learning and/or development activities (e.g., journal clubs, self-directed reading, continuing competence activities) to maintain the currency of knowledge, skills, and abilities	160	231	431	231	4.17	4.24	4.30	4.27	0.84	0.95	0.95	0.88	97	84	82	82
Practice within the federal and jurisdiction regulations and professional standards	162	231	431	231	4.76	4.68	4.75	4.68	0.50	0.68	0.62	0.63	99	87	83	82
Participate in professional organizations	134	231	431	231	3.52	3.56	3.45	3.49	1.01	1.27	1.21	1.22	83	75	76	77
Participate in performance improvement and quality reporting activities (e.g., Physician Quality Reporting System, standardized outcomes measurement, application of health informatics)	122	231	431	231	3.57	3.76	3.72	3.78	1.07	1.16	1.18	1.07	85	73	70	72

Note. Boldface mean (Red) indicates the mean importance value was less than 2.50. Light red shading indicates the 2019 mean importance value was below 2.50 (Criticality Threshold). Light orange shading indicates the 2019 mean importance value was between 2.50 (including) and 3.00 (excluding).

Table B.3. PT Knowledge and Skill Requirements Survey Results

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
CARDIOVASCULAR/PULMONARY SYSTEM																
Physical Therapy Examination																
Cardiovascular/pulmonary system tests/measures, including outcome measures, and their applications according to current best evidence	1,019	274	1,032	982	3.73	3.88	4.06	4.03	1.00	0.96	0.94	0.95	87	100	100	99
Anatomy and physiology of the cardiovascular/pulmonary system as related to tests/measures	1,021	274	1,032	982	3.80	3.85	4.05	4.01	0.98	0.94	0.93	0.94	90	100	100	100
Movement analysis as related to the cardiovascular/pulmonary system (e.g., rib cage excursion, breathing pattern)	1,020	274	1,032	982	3.68	3.74	3.93	3.93	0.98	0.97	0.94	0.93	87	99	100	100
Foundations for Evaluation, Differential Diagnosis and Prognosis																
Differential diagnoses related to diseases/conditions of the cardiovascular/pulmonary systems	1,018	274	1,032	982	3.79	3.90	4.08	4.07	0.98	0.97	0.89	0.89	89	99	100	100
Cardiovascular/pulmonary system diseases/conditions and their pathophysiology to establish and carry out plan of care, including prognosis	1,021	274	1,032	982	3.86	3.86	4.07	4.05	0.96	0.96	0.87	0.86	90	100	100	100
Non-pharmacological medical management of the cardiovascular/pulmonary system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	1,012	274	1,032	982	3.25	3.35	3.54	3.52	0.99	1.00	0.98	0.96	76	98	99	99
The impact of pharmacology used to treat the cardiovascular/pulmonary system on physical therapy management	1,018	274	1,032	982	3.79	3.90	4.08	4.07	0.98	0.97	0.89	0.89	89	99	100	100
Interventions																
Cardiovascular/pulmonary system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence	1,021	274	1,032	982	4.09	4.03	4.14	4.13	0.96	0.98	0.89	0.89	93	100	100	100

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Anatomy and physiology of the cardiovascular/pulmonary system as related to physical therapy interventions, daily activities, and environmental factors	1,021	274	1,032	982	4.19	4.08	4.23	4.20	0.88	0.90	0.82	0.87	95	99	100	100
Adverse effects or complications on the cardiovascular/pulmonary system from physical therapy interventions	1,022	274	1,032	982	4.38	4.37	4.49	4.45	0.82	0.77	0.71	0.75	97	100	100	100
Adverse effects or complications on the cardiovascular/pulmonary system from physical therapy interventions used on other systems	927	262	974	928	4.21	4.44	4.53	4.50	0.87	0.75	0.68	0.73	96	96	94	94
LYMPHATIC SYSTEM																
Physical Therapy Examination																
Lymphatic system tests/measures, including outcome measures, and their applications according to current best evidence	955	267	989	946	2.77	2.90	3.08	3.02	0.97	0.96	0.98	0.99	56	93	93	92
Anatomy and physiology of the lymphatic system as related to tests/measures	964	267	989	946	2.97	2.97	3.19	3.13	1.01	0.95	1.02	1.01	64	93	93	93
Movement analysis as related to the lymphatic system (e.g., compensatory movement, extremity range of motion)	968	267	989	946	3.20	3.15	3.38	3.30	1.05	1.08	1.03	1.03	72	92	94	93
Foundations for Evaluation, Differential Diagnosis and Prognosis																
Differential diagnoses related to diseases/conditions of the lymphatic system	966	267	989	946	3.13	3.12	3.35	3.32	1.05	1.01	1.00	0.98	68	94	94	94
Lymphatic system diseases/conditions and their pathophysiology to establish and carry out plan of care, including prognosis	967	267	989	946	3.12	3.06	3.30	3.26	1.02	0.97	0.98	0.98	68	94	94	94
Non-pharmacological medical management of the lymphatic system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	957	267	989	946	2.77	2.82	3.06	2.99	0.94	0.97	0.99	0.95	55	91	92	92

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Interventions																
Lymphatic system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence	967	267	989	946	3.12	3.25	3.41	3.38	1.02	1.08	1.02	1.04	68	93	94	94
Anatomy and physiology of the lymphatic system as related to interventions, daily activities, and environmental factors	967	267	989	946	3.33	3.29	3.46	3.38	1.05	1.04	1.00	1.05	75	94	94	94
Adverse effects or complications on the lymphatic system from physical therapy interventions	968	267	989	946	3.68	3.48	3.71	3.63	1.09	1.11	1.00	1.02	83	93	95	95
Adverse effects or complications on the lymphatic system from physical therapy interventions used on other systems	926	262	974	928	3.78	3.90	4.09	4.01	1.05	1.07	1.00	1.02	87	94	94	94
MUSCULOSKELETAL SYSTEM																
Physical Therapy Examination																
Musculoskeletal system tests/measures, including outcome measures, and their applications according to current best evidence	1,036	290	1,036	1,018	4.70	4.74	4.76	4.73	0.56	0.51	0.52	0.59	99	100	100	100
Anatomy and physiology of the musculoskeletal system as related to tests/measures	1,036	290	1,036	1,018	4.75	4.68	4.74	4.75	0.51	0.56	0.54	0.52	100	100	100	100
Movement analysis as related to the musculoskeletal system	1,036	290	1,036	1,018	4.60	4.66	4.70	4.71	0.61	0.58	0.55	0.53	100	100	100	100
Joint biomechanics and their applications	1,036	290	1,036	1,018	4.44	4.46	4.55	4.54	0.75	0.74	0.66	0.68	98	100	100	100
Physical therapy ultrasound imaging of the musculoskeletal system	973	290	1,036	1,018	2.67	2.69	2.80	2.73	1.13	1.05	1.08	1.11	49	88	89	87
Foundations for Evaluation, Differential Diagnosis and Prognosis																
Differential diagnoses related to diseases/conditions of the musculoskeletal system	1,036	274	1,006	993	4.44	4.57	4.58	4.57	0.73	0.62	0.61	0.63	99	94	97	98
Differential diagnoses related to diseases/conditions of the connective tissue	1,036	274	1,006	993	4.26	4.34	4.34	4.36	0.82	0.72	0.74	0.75	97	94	97	97

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Musculoskeletal system diseases/conditions and their pathophysiology to establish and carry out plan of care, including prognosis	1,036	274	1,006	993	4.51	4.55	4.54	4.56	0.67	0.60	0.64	0.62	99	94	97	98
Connective tissue diseases/conditions and their pathophysiology to establish and carry out plan of care, including prognosis	1,036	274	1,006	993	4.27	4.32	4.31	4.33	0.80	0.73	0.77	0.74	97	94	97	97
Non-pharmacological medical management of the musculoskeletal system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	1,033	274	1,006	993	3.64	3.81	3.80	3.86	0.93	0.82	0.87	0.84	89	94	97	97
The impact of pharmacology used to treat the musculoskeletal system on physical therapy management	1,010	274	1,006	993	3.18	3.27	3.72	3.73	0.87	0.86	0.86	0.86	78	94	97	97
The impact of regenerative medicine (e.g., platelet rich plasma, stem cells) on physical therapy prognosis and interventions related to musculoskeletal diseases/conditions	996	274	1,006	993	2.72	2.93	3.20	3.15	0.91	0.93	0.96	0.95	57	89	95	94
Interventions																
Musculoskeletal system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence	1,010	290	1,036	1,018	4.54	4.75	4.67	4.73	0.69	0.49	0.59	0.54	99	100	100	100
Anatomy and physiology of the musculoskeletal system as related to physical therapy interventions, daily activities, and environmental factors	1,010	290	1,036	1,018	4.71	4.77	4.73	4.76	0.51	0.46	0.52	0.50	100	100	100	100
Adverse effects or complications on the musculoskeletal system from physical therapy interventions	1,010	290	1,036	1,018	4.66	4.73	4.73	4.71	0.58	0.52	0.53	0.55	100	100	100	100
Adverse effects or complications on the musculoskeletal system from physical therapy interventions used on other systems	928	262	974	928	4.48	4.79	4.78	4.81	0.71	0.46	0.45	0.46	99	96	94	94

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
NEUROMUSCULAR & NERVOUS SYSTEM																
Physical Therapy Examination																
Neuromuscular and nervous systems tests/measures, including outcome measures, and their applications according to current best evidence	953	268	977	960	4.49	4.62	4.58	4.58	0.70	0.63	0.66	0.64	99	92	94	94
Anatomy and physiology of the neuromuscular and nervous systems as related to tests/measures	953	268	977	960	4.53	4.58	4.57	4.57	0.67	0.65	0.65	0.63	99	92	94	94
Movement analysis as related to the neuromuscular and nervous systems	952	268	977	960	4.38	4.58	4.56	4.56	0.80	0.65	0.67	0.64	97	92	94	94
Diagnostic electromyography (EMG) using surface electrodes	879	268	977	960	**2.43**	**2.49**	2.62	2.58	0.99	1.01	0.99	1.00	39	77	84	81
Diagnostic electrophysiology (EMG/NCV) using needle insertion	839	268	977	960	**2.27**	**2.35**	**2.47**	**2.45**	1.02	1.00	1.02	1.03	31	72	79	77
Foundations for Evaluation, Differential Diagnosis and Prognosis																
Differential diagnoses related to diseases/conditions of the nervous system (CNS, PNS, ANS)	951	268	977	960	4.16	4.25	4.25	4.33	0.88	0.89	0.82	0.81	96	92	94	94
Nervous system (CNS, PNS, ANS) diseases/conditions and their pathophysiology to establish and carry out plan of care, including prognosis	952	268	977	960	4.31	4.38	4.39	4.44	0.80	0.78	0.76	0.76	98	92	94	94
Non-pharmacological medical management of the neuromuscular and nervous systems (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	947	268	977	960	3.55	3.65	3.71	3.78	0.96	0.90	0.89	0.89	86	92	94	94
The impact of pharmacology used to treat the neuromuscular and nervous systems on physical therapy management	947	268	977	960	3.22	3.24	3.75	3.75	0.98	0.93	0.92	0.89	76	91	94	94
The impact of regenerative medicine (e.g., platelet rich plasma, stem cells) on physical therapy prognosis and interventions related to the neuromuscular and nervous systems				960				3.03				0.99				89

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Interventions																
Neuromuscular and nervous systems physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence	953	264	955	937	4.48	4.65	4.59	4.66	0.74	0.60	0.64	0.57	98	91	92	92
Anatomy and physiology of the neuromuscular and nervous systems as related to physical therapy interventions, daily activities, and environmental factors	928	264	955	937	4.58	4.59	4.59	4.63	0.63	0.58	0.64	0.59	99	91	92	92
Adverse effects or complications on the neuromuscular and nervous systems from physical therapy interventions	928	264	955	937	4.53	4.59	4.57	4.57	0.67	0.62	0.65	0.65	99	91	92	92
Adverse effects or complications on the neuromuscular and nervous systems from physical therapy interventions used on other systems	928	262	974	928	4.46	4.77	4.78	4.80	0.71	0.49	0.46	0.45	99	96	94	94
Motor control as related to neuromuscular and nervous systems physical therapy interventions	928	264	955	937	4.42	4.54	4.54	4.54	0.75	0.64	0.66	0.67	99	91	92	92
Motor learning as related to the neuromuscular and nervous systems physical therapy interventions	928	264	955	937	4.41	4.56	4.52	4.50	0.75	0.61	0.69	0.71	99	91	92	92
INTEGUMENTARY SYSTEM																
Physical Therapy Examination																
Integumentary system tests/measures, including outcome measures, and their applications according to current best evidence	947	257	943	908	3.33	3.32	3.51	3.48	0.99	0.96	0.98	0.99	78	93	90	91
Anatomy and physiology of the integumentary system as related to tests/measures	948	257	943	908	3.41	3.41	3.60	3.53	1.00	0.96	0.97	0.98	80	93	91	91
Movement analysis as related to the integumentary system (e.g., friction, shear, pressure, and scar mobility)	951	257	943	908	3.75	3.82	3.97	3.92	0.97	0.94	0.89	0.93	89	93	91	92

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Foundations for Evaluation, Differential Diagnosis and Prognosis																
Differential diagnoses related to diseases/conditions of the integumentary system	951	257	943	908	3.39	3.43	3.64	3.58	1.03	0.99	0.93	0.97	79	92	91	91
Integumentary system diseases/conditions and their pathophysiology to establish and carry out plan of care, including prognosis	951	257	943	908	3.42	3.37	3.67	3.57	1.01	0.98	0.93	0.94	80	92	91	92
Non-pharmacological medical management of the integumentary system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	946	257	943	908	3.02	3.02	3.37	3.29	0.98	0.97	0.99	0.96	67	91	90	91
The impact of pharmacology used to treat the integumentary system on physical therapy management	945	257	943	908	2.82	2.79	3.43	3.31	0.98	0.97	0.99	0.99	58	89	90	91
Interventions																
Integumentary system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence	951	257	943	908	3.64	3.62	3.76	3.72	1.02	1.01	0.96	0.96	86	93	91	92
Anatomy and physiology of the integumentary system as related to physical therapy interventions, daily activities, and environmental factors	950	257	943	908	3.71	3.73	3.83	3.80	1.00	0.95	0.94	0.94	88	93	91	92
Adverse effects or complications on the integumentary system from physical therapy and medical/surgical interventions	951	257	943	908	3.89	3.88	4.01	3.99	1.00	0.99	0.91	0.93	90	94	91	92
Adverse effects or complications on the integumentary system from physical therapy interventions used on other systems	927	262	974	928	3.97	4.10	4.30	4.22	0.99	0.96	0.84	0.86	90	96	94	94

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
METABOLIC & ENDOCRINE SYSTEMS																
Foundations for Evaluation, Differential Diagnosis and Prognosis																
Differential diagnoses related to diseases/conditions of the metabolic and endocrine systems	902	261	938	924	3.37	3.53	3.61	3.67	0.99	0.93	0.96	0.94	81	89	89	90
Metabolic and endocrine system diseases/conditions and their pathophysiology to establish and carry out plan of care, including prognosis	902	261	938	924	3.41	3.58	3.65	3.68	0.98	0.94	0.95	0.92	83	89	90	90
Non-pharmacological medical management of the metabolic and endocrine systems (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	894	261	938	924	2.98	3.16	3.28	3.36	1.00	0.94	0.98	0.92	66	87	88	89
The impact of pharmacology used to treat the metabolic and endocrine systems on physical therapy management	891	261	938	924	2.85	2.90	3.38	3.41	0.97	0.93	0.97	0.95	62	85	89	89
Interventions																
Metabolic and endocrine systems physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence	899	261	938	924	3.57	3.67	3.63	3.67	1.05	1.00	1.01	0.98	83	89	89	89
Anatomy and physiology of the metabolic and endocrine systems as related to physical therapy interventions, daily activities, and environmental factors	901	261	938	924	3.60	3.64	3.62	3.67	1.04	1.05	0.99	0.99	84	88	89	89
Adverse effects or complications on the metabolic and endocrine systems from physical therapy interventions	900	261	938	924	3.85	3.85	3.81	3.85	1.00	0.98	0.98	1.01	89	89	90	89
Adverse effects or complications on the metabolic and endocrine systems from physical therapy interventions used on other systems	927	262	974	928	3.80	3.87	4.08	4.04	1.05	1.05	0.97	0.97	87	95	94	94

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
GASTROINTESTINAL SYSTEM																
Physical Therapy Examination																
Gastrointestinal system tests/measures, including outcome measures, and their applications according to current best evidence (e.g., bowel dysfunction impact questionnaires, Murphy test, Rovsing test, McBurney point sign)	856	258	926	912	2.69	2.83	2.99	3.02	1.02	1.00	1.03	1.04	53	83	84	85
Anatomy and physiology of the gastrointestinal system as related to tests/measures	865	258	926	912	2.88	2.94	3.09	3.10	1.02	1.03	1.03	1.01	61	83	85	86
Movement analysis as related to the gastrointestinal system (e.g., effects of muscular tension or trigger points, positioning for bowel movement)	866	258	926	912	2.96	2.96	3.10	3.10	1.10	1.11	1.04	1.05	61	82	85	86
Foundations for Evaluation, Differential Diagnosis and Prognosis																
Gastrointestinal system diseases/conditions and their pathophysiology to establish and carry out plan of care, including prognosis	869	258	926	912	2.96	2.99	3.12	3.12	1.03	1.02	1.03	1.02	64	84	85	86
Differential diagnoses related to diseases/conditions of the gastrointestinal system	871	258	926	912	3.03	3.09	3.19	3.20	1.08	1.03	1.05	1.06	64	84	85	86
Non-pharmacological medical management of the gastrointestinal system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	861	258	926	912	2.64	2.71	2.89	2.86	0.96	0.98	0.97	0.96	50	81	84	85
The impact of pharmacology used to treat the gastrointestinal system on physical therapy management	854	258	926	912	**2.49**	2.57	3.06	3.06	0.91	0.93	1.00	0.97	44	80	85	87

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Interventions																
Gastrointestinal system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence (e.g., positioning for reflux prevention, bowel programs)	867	258	926	912	3.09	3.09	3.18	3.14	1.12	1.09	1.05	1.05	66	84	85	86
Anatomy and physiology of the gastrointestinal system as related to physical therapy interventions, daily activities, and environmental factors	872	258	926	912	3.26	3.23	3.28	3.29	1.10	1.08	1.06	1.05	73	85	86	87
Adverse effects or complications on the gastrointestinal system from physical therapy interventions	872	258	926	912	3.43	3.38	3.46	3.46	1.12	1.09	1.11	1.09	76	86	86	87
Adverse effects or complications on the gastrointestinal system from physical therapy interventions used on other systems	926	262	974	928	3.61	3.73	3.94	3.85	1.12	1.12	1.06	1.09	80	95	93	93
GENITOURINARY SYSTEM																
Physical Therapy Examination																
Genitourinary system tests/measures, including outcome measures, and their applications according to current best evidence	844	255	917	903	2.77	2.93	3.01	3.04	1.04	1.09	1.05	1.06	54	80	83	84
Anatomy and physiology of the genitourinary system as related to tests/measures	851	255	917	903	2.88	2.95	3.07	3.14	1.07	1.11	1.07	1.06	57	81	84	84
Physical therapy ultrasound imaging of the genitourinary system	780	255	917	903	**2.22**	**2.25**	**2.44**	**2.43**	0.98	1.01	1.02	1.03	30	66	72	72
Foundations for Evaluation, Differential Diagnosis and Prognosis																
Genitourinary system diseases/conditions and their pathophysiology to establish and carry out plan of care, including prognosis	846	255	917	903	2.80	2.90	3.00	3.03	1.09	1.09	1.05	1.03	54	80	83	84
Differential diagnoses related to diseases/conditions of the genitourinary system	855	255	917	903	2.90	3.02	3.07	3.13	1.10	1.11	1.08	1.06	58	81	83	84

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Non-pharmacological medical management of the genitourinary system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	844	255	917	903	2.54	2.64	2.80	2.83	1.00	1.04	1.00	0.99	44	77	81	83
The impact of pharmacology used to treat the genitourinary system on physical therapy management	835	255	917	903	**2.42**	**2.49**	2.95	2.92	0.95	1.00	1.04	1.02	40	74	82	83
Interventions																
Genitourinary system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence (e.g., bladder programs, biofeedback, pelvic floor retraining)	855	255	917	903	3.03	3.13	3.15	3.20	1.12	1.16	1.08	1.10	63	81	84	85
Anatomy and physiology of the genitourinary system as related to physical therapy interventions, daily activities, and environmental factors	855	255	917	903	3.17	3.24	3.22	3.25	1.14	1.17	1.10	1.09	68	82	84	85
Adverse effects or complications on the genitourinary system from physical therapy interventions	853	255	917	903	3.29	3.28	3.33	3.37	1.17	1.19	1.14	1.13	71	82	84	85
Adverse effects or complications on the genitourinary system from physical therapy interventions used on other systems	927	262	974	928	3.56	3.63	3.90	3.81	1.17	1.17	1.11	1.12	78	94	93	93
SYSTEM INTERACTIONS																
Foundations for Evaluation, Differential Diagnosis and Prognosis																
Differential diagnoses related to diseases/conditions where the primary impact is on more than one system	928	253	917	888	4.03	4.22	4.33	4.34	0.93	0.81	0.70	0.74	94	92	89	90
Diseases/conditions where the primary impact is on more than one system (e.g., cancer, multi-trauma, sarcoidosis, autoimmune disorders, pregnancy) to establish and carry out plan of care, including prognosis	927	253	917	888	4.10	4.22	4.33	4.29	0.87	0.81	0.72	0.76	95	92	89	90

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
The impact of co-morbidities/co-existing conditions on patient/client management (e.g., diabetes and hypertension; obesity and arthritis; dementia and hip fracture)	915	253	917	888	4.43	4.43	4.52	4.54	0.71	0.71	0.65	0.64	99	92	89	90
Psychological and psychiatric conditions that impact patient/client management (e.g., grief, depression, schizophrenia)	915	253	917	888	3.97	4.00	4.16	4.19	0.88	0.88	0.80	0.82	95	92	89	90
Dimensions of pain that impact patient/client management (e.g., psychological, social, physiological, neurological, mechanical)	915	253	917	888	4.26	4.26	4.38	4.41	0.79	0.81	0.72	0.73	97	92	89	90
Non-pharmacological medical management of multiple systems (e.g., diagnostic imaging and other medical tests, surgical procedures)	914	253	917	888	3.66	3.85	4.04	3.98	0.92	0.91	0.84	0.86	90	92	89	90
The impact of pharmacology used to treat multiple systems, including polypharmacy, on physical therapy management	913	253	917	888	3.42	3.53	3.99	3.93	0.98	0.98	0.88	0.89	82	92	89	90
EQUIPMENT, DEVICES, & TECHNOLOGIES																
Applications and adjustments, indications, contraindications, and precautions of:																
- assistive and adaptive devices/technologies (e.g., walkers, wheelchairs, adaptive seating systems and positioning devices, mechanical lifts)	876	254	913	896	4.59	4.60	4.64	4.62	0.69	0.65	0.67	0.66	99	88	88	88
- prosthetic devices/technologies (e.g., lower-extremity and upper-extremity prostheses, microprocessor-controlled prosthetic devices)	874	254	913	896	4.01	3.98	4.14	4.08	1.04	0.94	0.92	0.98	90	87	88	87
- protective, supportive, and orthotic devices/technologies (e.g., braces, helmets, taping, compression garments, serial casts, shoe inserts, splints)	875	254	913	896	4.14	4.06	4.25	4.22	0.94	0.94	0.88	0.89	94	87	88	88

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
THERAPEUTIC MODALITIES																
Applications, indications, contraindications, and precautions of:																
- thermal modalities	902	252	912	886	4.15	3.71	3.81	3.70	0.99	1.19	1.11	1.18	91	88	86	86
- iontophoresis	889	252	912	886	3.73	3.00	3.15	2.98	1.19	1.18	1.20	1.23	80	82	81	80
- electrotherapy modalities, excluding iontophoresis (e.g., neuromuscular electrical stimulation (NMES), transcutaneous electrical nerve stimulation (TENS), functional electrical stimulation (FES), interferential therapy, high-voltage pulsed current)	899	252	912	886	4.14	3.82	3.92	3.80	0.97	1.06	1.03	1.09	93	91	87	88
- light modalities (e.g., laser light therapy, LED light therapy)	875	252	912	886	3.44	2.72	2.92	2.85	1.29	1.26	1.22	1.23	70	76	77	77
- phonophoresis	875	252	912	886	3.45	2.65	2.82	2.69	1.31	1.24	1.23	1.29	70	73	75	72
- ultrasound modalities, excluding phonophoresis	888	252	912	886	3.83	3.17	3.33	3.15	1.17	1.30	1.29	1.31	82	82	80	79
- mechanical modalities (e.g., mechanical motion devices, traction devices)	896	252	909	886	3.97	3.62	3.77	3.73	1.06	1.12	1.08	1.10	88	89	86	88
- biofeedback	896	252	909	886	3.57	3.42	3.50	3.51	1.12	1.03	1.09	1.08	80	89	85	87
- diathermy	828	252	909	886	3.06	**2.21**	2.55	**2.37**	1.40	1.23	1.31	1.23	54	57	64	63
- intermittent compression	893	252	909	886	3.57	2.86	3.13	3.09	1.16	1.16	1.16	1.18	78	80	81	82
- shockwave therapy	740	252	909	886	**2.45**	**2.09**	**2.40**	**2.30**	1.26	1.09	1.21	1.20	33	58	63	62
SAFETY & PROTECTION																
Factors influencing safety and injury prevention (e.g., safe patient handling, fall prevention, equipment maintenance, environmental safety)	874	254	913	896	4.79	4.76	4.77	4.78	0.51	0.53	0.55	0.52	99	88	88	88
The function and implications and related precautions of intravenous lines, tubes, catheters, monitoring devices, and mechanical ventilators/oxygen delivery devices	872	254	913	896	4.29	4.34	4.33	4.26	0.88	0.88	0.86	0.89	96	87	88	87
Emergency preparedness (e.g., CPR, first aid, disaster response)	873	254	913	896	4.52	4.56	4.58	4.57	0.78	0.76	0.73	0.74	97	88	88	88

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Infection control procedures (e.g., standard/universal precautions, isolation techniques, sterile technique)	874	254	913	896	4.69	4.63	4.66	4.70	0.62	0.72	0.66	0.63	99	88	88	88
Signs/symptoms of physical, sexual, and psychological abuse and neglect	874	254	913	896	4.38	4.50	4.51	4.48	0.81	0.74	0.75	0.76	97	88	88	88
PROFESSIONAL RESPONSIBILITIES																
Standards of documentation	873	253	909	893	4.68	4.70	4.68	4.70	0.55	0.54	0.58	0.58	100	87	88	88
Standards of professional ethics	873	253	909	893	4.80	4.84	4.82	4.84	0.46	0.43	0.45	0.43	100	87	88	88
Standards of billing, coding, and reimbursement	872	253	909	893	4.27	4.53	4.41	4.44	0.87	0.69	0.77	0.79	96	87	88	88
Patient/client rights (e.g., ADA, IDEA, HIPAA, patient bill of rights)	873	253	909	893	4.57	4.68	4.68	4.75	0.67	0.61	0.61	0.55	99	87	88	88
Obligations for reporting illegal, unethical, or unprofessional behaviors (e.g., fraud, abuse, neglect)	873	253	909	893	4.61	4.70	4.69	4.76	0.63	0.59	0.60	0.54	99	87	88	88
State and federal laws, rules, regulations, and industry standards set by state and accrediting bodies (e.g., state licensing entities, Joint Commission, CARF, CMS)	872	253	909	893	4.43	4.61	4.61	4.63	0.79	0.70	0.68	0.67	97	87	88	88
Risk management and quality assurance (e.g., policies and procedures, incident reports, peer chart review)	871	252	904	890	4.07	4.02	3.92	3.93	0.95	0.87	0.91	0.96	92	87	87	87
Human resource legal issues (e.g., OSHA, sexual harassment)	872	252	904	890	3.96	3.99	3.93	4.03	0.99	0.93	0.94	0.97	91	87	87	87
Roles and responsibilities of the PT, PTA, other healthcare professionals, and support staff	873	252	904	890	4.55	4.58	4.56	4.56	0.66	0.67	0.68	0.67	99	87	87	87
Cultural factors and/or characteristics that affect patient/client management (e.g., language differences, disability, ethnicity, customs, demographics, religion)	873	252	904	890	4.23	4.25	4.24	4.34	0.86	0.86	0.88	0.81	96	87	87	87
Socioeconomic factors that affect patient/client management	872	252	904	890	3.93	4.19	4.17	4.27	0.90	0.87	0.89	0.82	93	87	87	87
Health information technology (e.g., electronic medical records, telemedicine)	872	252	904	890	3.88	4.05	4.03	4.13	0.98	0.96	0.94	0.88	91	86	86	87

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
TEACHING & LEARNING THEORIES																
Teaching and learning theories and techniques	897	251	904	886	3.70	3.93	3.91	3.93	1.05	1.00	0.99	0.99	85	90	86	89
Health behavior change models (e.g., social cognitive theory, health belief model)	896	251	904	886	3.42	3.55	3.65	3.73	1.07	1.11	1.02	1.00	78	88	86	89
Communication methods and techniques (e.g., motivational interviewing, health information brochures/handouts, feedback techniques)	903	251	904	886	3.86	4.04	4.12	4.14	1.02	1.04	0.91	0.92	89	90	87	89
RESEARCH & EVIDENCE-BASED PRACTICE																
Techniques for accessing evidence (e.g., peer-reviewed publications, scientific proceedings, guidelines, clinical prediction rules)	902	251	904	886	3.86	3.98	4.02	4.11	1.01	0.97	0.93	0.88	90	91	87	90
Research methodology and interpretation (e.g., qualitative, quantitative, levels of evidence)	901	251	904	886	3.53	3.71	3.69	3.81	1.05	1.02	1.02	0.96	83	90	86	89
Measurement science (e.g., reliability, validity)	902	251	904	886	3.65	3.74	3.77	3.88	1.04	1.00	0.99	0.97	86	90	86	89
Statistics (e.g., t-test, chi-square, correlation coefficient, ANOVA, likelihood ratio, effect size, confidence interval)	882	251	904	886	2.93	2.88	3.07	3.12	1.11	1.04	1.10	1.07	61	83	82	85
Data collection techniques (e.g., surveys, direct observation)	892	251	904	886	3.18	3.13	3.32	3.32	1.08	1.02	1.07	1.02	70	87	85	87
SKILLS																
Active listening - Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times	905	251	903	884	4.72	4.77	4.80	4.82	0.55	0.51	0.48	0.46	100	92	88	90
Speaking - Talking to others to convey information effectively	905	251	903	884	4.69	4.75	4.77	4.78	0.56	0.51	0.49	0.49	100	92	88	90
Reading Comprehension - Understanding written sentences and paragraphs in work related documents	905	251	903	884	4.51	4.57	4.58	4.58	0.73	0.69	0.64	0.65	99	91	88	90

PT KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Critical Thinking - Using logic and clinical reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems	905	251	903	884	4.77	4.80	4.83	4.83	0.50	0.48	0.43	0.45	100	91	88	90
Social Perceptiveness - Being aware of others' reactions and understanding why they react as they do	903	251	903	884	4.57	4.73	4.72	4.73	0.68	0.55	0.54	0.53	99	92	87	90
Time Management - Managing one's own time and the time of others	905	251	903	884	4.58	4.71	4.72	4.70	0.67	0.56	0.53	0.57	99	92	88	90
Coordination - Adjusting actions in relation to others' actions	903	249	902	880	4.48	4.51	4.55	4.55	0.74	0.64	0.65	0.63	98	91	87	90
Writing - Communicating effectively in writing as appropriate for the needs of the audience	904	249	902	880	4.48	4.44	4.49	4.44	0.75	0.71	0.71	0.71	98	91	87	90
Active Learning - Understanding the implications of new information for both current and future problem solving and decision-making	904	249	902	880	4.55	4.59	4.64	4.63	0.70	0.64	0.59	0.59	98	91	87	90
Persuasion - Persuading others to change their minds or behavior	901	249	902	880	3.89	3.91	4.02	3.99	1.01	0.96	0.90	0.94	90	90	87	88
Negotiation - Bringing others together and trying to reconcile differences	900	249	902	880	3.78	3.98	4.14	4.10	1.02	0.96	0.86	0.88	88	90	87	89
Service Orientation - Actively looking for ways to help people	902	249	902	880	4.08	4.35	4.36	4.37	0.93	0.82	0.80	0.79	93	91	87	89

Note. Boldface mean (Red) indicates the mean importance value was less than 2.50. Light red shading indicates the 2019 mean importance value was below 2.50 (Criticality Threshold). Light orange shading indicates the 2019 mean importance value was between 2.50 (including) and 3.00 (excluding).

Table B.4. PTA Knowledge and Skill Requirements Survey Results

PTA KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
CARDIOVASCULAR/PULMONARY SYSTEM																
Physical Therapy Data Collection																
Cardiovascular/pulmonary system tests/measures, including outcome measures, and their applications according to current best evidence	1,123	625	696	565	3.59	3.91	3.93	3.97	1.06	0.97	0.99	0.95	82	99	99	99
Anatomy and physiology of the cardiovascular/pulmonary system as related to tests/measures	1,126	625	696	565	3.64	3.86	3.91	4.02	1.04	0.96	0.98	0.94	85	99	99	99
Movement analysis as related to the cardiovascular/pulmonary system (e.g., rib cage excursion, breathing pattern)	1,127	625	696	565	3.60	3.71	3.80	3.93	1.01	0.97	1.00	0.93	84	100	99	100
Diseases/Conditions that Impact Effective Treatment																
Cardiovascular/pulmonary system diseases/conditions and their pathophysiology to carry out the established plan of care	1,129	625	696	565	3.84	3.98	4.05	4.09	0.94	0.90	0.91	0.89	91	100	99	99
Non-pharmacological medical management of the cardiovascular/pulmonary system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	1,116	625	696	565	3.02	3.23	3.33	3.42	1.03	0.98	1.00	1.02	66	97	98	98
The impact of pharmacology used to treat the cardiovascular/pulmonary system on physical therapy management	1,099	625	696	565	2.84	3.07	3.52	3.56	0.99	0.96	0.98	0.97	58	96	99	99
Interventions																
Cardiovascular/pulmonary system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence	1,127	625	696	565	4.00	4.13	4.12	4.24	0.96	0.91	0.88	0.86	92	100	99	99
Anatomy and physiology of the cardiovascular/pulmonary system as related to physical therapy interventions, daily activities, and environmental factors	1,130	625	696	565	4.08	4.20	4.15	4.28	0.91	0.87	0.86	0.84	94	100	100	100
Adverse effects or complications on the cardiovascular/pulmonary system from physical therapy interventions	1,130	625	696	565	4.33	4.48	4.41	4.50	0.83	0.71	0.74	0.74	97	100	100	100

PTA KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Adverse effects or complications on the cardiovascular/pulmonary system from physical therapy interventions used on other systems	1,044	587	643	516	4.12	4.39	4.30	4.40	0.89	0.78	0.80	0.78	95	94	92	90
LYMPHATIC SYSTEM																
Physical Therapy Data Collection																
Lymphatic system tests/measures, including outcome measures, and their applications according to current best evidence	1,063	604	671	534	2.79	2.99	3.08	3.23	1.05	0.99	0.95	0.99	55	92	93	91
Anatomy and physiology of the lymphatic system as related to tests/measures	1,074	604	671	534	2.95	3.04	3.17	3.31	1.05	0.99	0.98	1.00	63	93	94	92
Movement analysis as related to the lymphatic system (e.g., compensatory movement, extremity range of motion)	1,078	604	671	534	3.32	3.35	3.44	3.63	1.07	1.05	1.04	0.99	74	94	94	93
Diseases/Conditions that Impact Effective Treatment																
Lymphatic system diseases/conditions and their pathophysiology to carry out the established plan of care	1,082	604	671	534	3.24	3.31	3.39	3.56	1.06	1.04	0.99	0.96	73	94	94	93
Non-pharmacological medical management of the lymphatic system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	1,064	604	671	534	2.70	2.88	2.99	3.13	0.98	0.95	0.95	0.96	53	92	92	90
Interventions																
Lymphatic system interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence	1,076	604	671	534	3.26	3.37	3.41	3.61	1.06	1.07	1.01	0.97	72	94	94	93
Anatomy and physiology of the lymphatic system as related to interventions, daily activities, and environmental factors	1,083	604	671	534	3.36	3.43	3.47	3.69	1.08	1.06	1.02	1.00	75	94	95	92
Adverse effects or complications on the lymphatic system from physical therapy interventions	1,086	604	671	534	3.70	3.77	3.75	3.95	1.09	1.10	1.05	0.98	83	95	95	93
Adverse effects or complications on the lymphatic system from physical therapy interventions used on other systems	1,042	587	643	518	3.72	3.70	3.63	3.86	1.06	1.07	1.05	1.05	85	93	90	90

PTA KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
MUSCULOSKELETAL SYSTEM																
Physical Therapy Data Collection																
Musculoskeletal system tests/measures, including outcome measures, and their applications according to current best evidence	1,162	647	662	583	4.31	4.46	4.45	4.43	0.85	0.77	0.79	0.79	96	100	100	99
Anatomy and physiology of the musculoskeletal system as related to tests/measures	1,164	647	662	583	4.51	4.56	4.56	4.56	0.73	0.69	0.67	0.68	98	100	100	100
Movement analysis as related to the musculoskeletal system	1,164	647	662	583	4.38	4.46	4.52	4.51	0.77	0.72	0.68	0.67	98	100	100	100
Joint biomechanics and their applications	1,165	647	662	583	4.33	4.37	4.46	4.40	0.80	0.78	0.71	0.77	97	100	100	100
Diseases/Conditions that Impact Effective Treatment																
Musculoskeletal system diseases/conditions and their pathophysiology to carry out the established plan of care	1,164	625	641	561	4.26	4.30	4.39	4.36	0.81	0.74	0.70	0.72	97	97	97	96
Connective tissue diseases/conditions and their pathophysiology to carry out the established plan of care	1,164	625	641	561	4.07	4.12	4.23	4.19	0.90	0.82	0.76	0.79	95	97	97	96
Non-pharmacological medical management of the musculoskeletal system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	1,156	625	641	561	3.37	3.55	3.64	3.52	1.00	0.96	0.88	0.93	80	96	96	95
The impact of pharmacology used to treat the musculoskeletal system on physical therapy management	1,145	625	641	561	3.06	3.26	3.63	3.51	1.03	0.98	0.90	0.90	69	94	96	96
Interventions																
Musculoskeletal system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence	1,165	647	662	583	4.49	4.63	4.64	4.63	0.72	0.59	0.59	0.60	99	100	100	100
Anatomy and physiology of the musculoskeletal system as related to physical therapy interventions, daily activities, and environmental factors	1,166	647	662	583	4.63	4.63	4.66	4.68	0.62	0.62	0.58	0.58	99	100	100	100
Adverse effects or complications on the musculoskeletal system from physical therapy interventions	1,153	647	662	583	4.50	4.65	4.67	4.67	0.68	0.61	0.60	0.57	99	100	100	100

PTA KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Adverse effects or complications on the musculoskeletal system from physical therapy interventions used on other systems	1,045	587	643	516	4.38	4.53	4.43	4.49	0.77	0.70	0.73	0.74	98	94	92	91
NEUROMUSCULAR & NERVOUS SYSTEM																
Physical Therapy Data Collection																
Neuromuscular and nervous systems tests/measures, including outcome measures, and their applications according to current best evidence	1,076	624	641	561	3.99	4.06	4.08	4.08	0.91	0.89	0.86	0.85	93	96	97	96
Anatomy and physiology of the neuromuscular and nervous systems as related to tests/measures	1,078	624	641	561	4.09	4.16	4.19	4.17	0.88	0.86	0.82	0.83	95	96	97	96
Movement analysis as related to the neuromuscular and nervous systems	1,078	624	640	561	4.12	4.24	4.31	4.27	0.87	0.83	0.77	0.79	96	96	97	96
Diseases/Conditions that Impact Effective Treatment																
Nervous system (CNS, PNS, ANS) diseases/conditions and their pathophysiology to carry out the established plan of care	1,079	625	640	561	4.00	4.06	4.15	4.11	0.91	0.90	0.85	0.87	94	96	97	96
Non-pharmacological medical management of the neuromuscular and nervous systems (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	1,074	624	640	561	3.32	3.51	3.64	3.59	1.03	1.01	0.90	0.94	78	95	96	95
The impact of pharmacology used to treat the neuromuscular and nervous systems on physical therapy management	1,061	624	640	561	3.09	3.25	3.68	3.63	1.05	0.99	0.94	0.93	68	94	96	96
Interventions																
Neuromuscular and nervous systems physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence	1,078	601	615	545	4.25	4.40	4.41	4.42	0.86	0.74	0.69	0.72	95	93	93	93
Anatomy and physiology of the neuromuscular and nervous systems as related to physical therapy interventions, daily activities, and environmental factors	1,079	601	615	545	4.34	4.38	4.40	4.42	0.79	0.75	0.71	0.71	97	93	93	93
Adverse effects or complications on the neuromuscular and nervous systems from physical therapy interventions	1,079	601	615	545	4.38	4.44	4.42	4.45	0.78	0.74	0.74	0.71	97	93	93	93

PTA KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Adverse effects or complications on the neuromuscular and nervous systems from physical therapy interventions used on other systems	1,045	587	643	516	4.36	4.53	4.42	4.46	0.78	0.70	0.73	0.75	98	94	92	91
Motor control as related to neuromuscular and nervous systems physical therapy interventions	1,079	601	615	545	4.33	4.34	4.39	4.36	0.76	0.76	0.72	0.73	98	93	93	93
Motor learning as related to the neuromuscular and nervous systems physical therapy interventions	1,069	601	615	545	4.11	4.32	4.37	4.34	0.86	0.79	0.74	0.75	96	93	93	93
INTEGUMENTARY SYSTEM																
Physical Therapy Data Collection																
Integumentary system tests/measures, including outcome measures, and their applications according to current best evidence	1,056	569	621	506	3.22	3.32	3.41	3.52	1.06	0.97	0.98	1.01	72	89	87	87
Anatomy and physiology of the integumentary system as related to tests/measures	1,061	569	621	506	3.35	3.43	3.47	3.62	1.03	0.98	0.97	1.02	77	90	88	88
Movement analysis as related to the integumentary system (e.g., friction, shear, pressure, and scar mobility)	1,065	569	621	506	3.77	3.87	3.89	4.03	0.96	0.91	0.89	0.93	90	91	89	89
Diseases/Conditions that Impact Effective Treatment																
Integumentary system diseases/conditions and their pathophysiology to carry out the established plan of care	1,063	569	621	506	3.58	3.65	3.73	3.83	0.98	0.95	0.93	0.92	85	90	89	89
Non-pharmacological medical management of the integumentary system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	1,050	569	621	506	2.97	3.13	3.24	3.36	1.04	0.96	0.96	0.99	64	89	87	87
The impact of pharmacology used to treat the integumentary system on physical therapy management	1,041	569	621	506	2.77	2.88	3.32	3.41	1.06	0.98	0.97	1.00	55	86	87	87
Interventions																
Integumentary system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence	1,065	569	621	505	3.66	3.72	3.71	3.85	1.01	0.95	0.95	0.96	87	91	88	88

PTA KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Anatomy and physiology of the integumentary system as related to physical therapy interventions, daily activities, and environmental factors	1,066	569	621	505	3.75	3.80	3.78	3.97	1.00	0.94	0.95	0.95	88	90	89	88
Adverse effects or complications on the integumentary system from physical therapy and medical/surgical interventions	1,066	569	621	505	3.88	3.98	3.93	4.06	1.00	0.95	0.94	0.94	89	91	88	88
Adverse effects or complications on the integumentary system from physical therapy interventions used on other systems	1,043	587	643	516	3.95	4.07	4.01	4.14	0.97	0.90	0.88	0.93	92	94	92	90
METABOLIC & ENDOCRINE SYSTEMS																
Diseases/Conditions that Impact Effective Treatment																
Metabolic and endocrine system diseases/conditions and their pathophysiology to carry out the established plan of care	1,038	593	607	535	3.21	3.43	3.53	3.49	0.99	0.98	0.94	0.94	76	90	90	91
Non-pharmacological medical management of the metabolic and endocrine systems (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	1,029	593	607	535	2.92	3.15	3.34	3.27	0.97	0.98	0.95	0.94	65	89	90	91
The impact of pharmacology used to treat the metabolic and endocrine systems on physical therapy management	1,019	593	607	535	2.77	2.98	3.34	3.31	0.98	0.99	0.96	0.97	57	87	90	90
Interventions																
Metabolic and endocrine systems physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence	1,039	593	607	535	3.40	3.53	3.58	3.58	1.06	1.03	0.96	0.97	80	89	90	91
Anatomy and physiology of the metabolic and endocrine systems as related to physical therapy interventions, daily activities, and environmental factors	1,041	593	607	535	3.42	3.56	3.62	3.64	1.06	1.06	0.97	0.97	79	90	91	91
Adverse effects or complications on the metabolic and endocrine systems from physical therapy interventions	1,042	593	607	535	3.65	3.77	3.75	3.77	1.06	1.04	0.99	0.96	85	90	91	91
Adverse effects or complications on the metabolic and endocrine systems from physical therapy interventions used on other systems	1,041	587	643	516	3.70	3.74	3.71	3.88	1.09	1.03	1.00	1.00	84	93	92	90

PTA KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
GASTROINTESTINAL SYSTEM																
Physical Therapy Data Collection																
Gastrointestinal system tests/measures, including outcome measures, and their applications according to current best evidence (e.g., bowel dysfunction impact questionnaires, Murphy test, Rovsing test, McBurney point sign)	980	586	596	528	2.64	2.77	2.93	2.88	1.04	1.05	0.99	0.96	49	81	85	85
Anatomy and physiology of the gastrointestinal system as related to tests/measures	989	586	596	528	2.77	2.86	3.02	3.00	1.06	1.04	0.99	0.98	54	84	87	87
Movement analysis as related to the gastrointestinal system (e.g., effects of muscular tension or trigger points, positioning for bowel movement)	996	586	596	528	2.93	2.97	3.12	3.17	1.04	1.09	1.05	1.00	61	83	86	88
Diseases/Conditions that Impact Effective Treatment																
Gastrointestinal system diseases/conditions and their pathophysiology to carry out the established plan of care	1,000	586	596	528	2.92	3.02	3.14	3.19	1.01	1.08	1.03	0.99	63	84	87	88
Non-pharmacological medical management of the gastrointestinal system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	984	586	596	528	2.63	2.78	2.92	2.92	0.98	1.01	0.99	0.95	49	83	84	86
The impact of pharmacology used to treat the gastrointestinal system on physical therapy management	974	586	596	528	**2.48**	2.64	3.03	3.02	0.93	0.98	1.01	0.97	43	81	85	87
Interventions																
Gastrointestinal system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence (e.g., positioning for reflux prevention, bowel programs)	1,003	586	596	528	3.06	3.15	3.16	3.22	1.07	1.09	1.06	1.03	67	85	86	88
Anatomy and physiology of the gastrointestinal system as related to physical therapy interventions, daily activities, and environmental factors	1,006	586	596	528	3.17	3.20	3.26	3.31	1.10	1.11	1.05	1.02	69	85	87	88
Adverse effects or complications on the gastrointestinal system from physical therapy interventions	1,008	586	596	528	3.35	3.37	3.41	3.46	1.11	1.14	1.07	1.03	74	86	87	89

PTA KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Adverse effects or complications on the gastrointestinal system from physical therapy interventions used on other systems	1,041	587	643	516	3.57	3.59	3.58	3.75	1.14	1.09	1.04	1.06	80	92	91	89
GENITOURINARY SYSTEM																
Physical Therapy Data Collection																
Genitourinary system tests/measures, including outcome measures, and their applications according to current best evidence	963	579	589	519	2.57	2.78	2.89	2.90	1.00	1.05	1.04	1.02	45	81	82	83
Anatomy and physiology of the genitourinary system as related to tests/measures	971	579	589	519	2.70	2.82	2.95	2.95	1.04	1.04	1.05	1.03	50	82	82	83
Diseases/Conditions that Impact Effective Treatment																
Genitourinary system diseases/conditions and their pathophysiology to carry out the established plan of care	977	579	589	519	2.74	2.89	2.99	3.02	1.03	1.06	1.05	1.03	52	82	84	84
Non-pharmacological medical management of the genitourinary system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	964	579	589	519	2.52	2.68	2.82	2.84	0.97	0.97	1.01	0.98	44	81	82	82
The impact of pharmacology used to treat the genitourinary system on physical therapy management	951	579	589	519	**2.40**	2.52	2.91	2.95	0.95	0.95	1.04	1.01	38	77	82	83
Interventions																
Genitourinary system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence (e.g., bladder programs, biofeedback, pelvic floor retraining)	978	579	589	519	2.94	3.05	3.13	3.17	1.08	1.09	1.04	1.09	59	83	85	85
Anatomy and physiology of the genitourinary system as related to physical therapy interventions, daily activities, and environmental factors	982	579	589	519	3.01	3.08	3.15	3.23	1.11	1.11	1.07	1.08	61	83	85	85
Adverse effects or complications on the genitourinary system from physical therapy interventions	983	579	589	519	3.13	3.21	3.24	3.31	1.15	1.17	1.11	1.13	65	84	85	85
Adverse effects or complications on the genitourinary system from physical therapy interventions used on other systems	1,040	587	643	516	3.50	3.49	3.48	3.67	1.19	1.15	1.10	1.11	76	91	90	88

PTA KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
SYSTEM INTERACTIONS																
Diseases/Conditions that Impact Effective Treatment																
Diseases/conditions where the primary impact is on more than one system (e.g., cancer, multi-trauma, sarcoidosis, autoimmune disorders, pregnancy) to carry out the established plan of care	1,044	564	607	497	4.03	4.20	4.13	4.24	0.92	0.82	0.85	0.83	94	90	87	88
The impact of co-morbidities/co-existing conditions on patient/client management (e.g., diabetes and hypertension; obesity and arthritis; dementia and hip fracture)	1,045	564	607	497	4.31	4.46	4.42	4.46	0.79	0.66	0.70	0.69	97	90	87	88
Psychological and psychiatric conditions that impact patient/client management (e.g., grief, depression, schizophrenia)	1,041	564	607	497	3.73	4.06	4.01	4.09	0.91	0.85	0.88	0.86	90	90	87	88
Dimensions of pain that impact patient/client management (e.g., psychological, social, physiological, neurological, mechanical)	1,042	564	607	497	4.00	4.27	4.23	4.30	0.87	0.76	0.80	0.79	95	90	87	88
Non-pharmacological medical management of multiple systems (e.g., diagnostic imaging and other medical tests, surgical procedures)	1,031	564	607	497	3.29	3.57	3.72	3.74	1.01	0.95	0.95	0.95	77	89	86	87
The impact of pharmacology used to treat multiple systems, including polypharmacy, on physical therapy management	1,018	564	607	497	3.06	3.30	3.72	3.74	1.00	1.00	0.95	0.98	69	88	86	87
EQUIPMENT, DEVICES, & TECHNOLOGIES																
Applications and adjustments, indications, contraindications, and precautions of:																
- assistive and adaptive devices/technologies (e.g., walkers, wheelchairs, adaptive seating systems and positioning devices, mechanical lifts)	998	575	584	515	4.64	4.73	4.74	4.71	0.63	0.53	0.50	0.54	99	89	88	88
- prosthetic devices/technologies (e.g., lower-extremity and upper-extremity prostheses, microprocessor-controlled prosthetic devices)	994	575	584	515	4.18	4.17	4.34	4.30	0.98	0.90	0.84	0.90	92	88	88	88
- protective, supportive, and orthotic devices/technologies (e.g., braces, helmets, taping, compression garments, serial casts, shoe inserts, splints)	997	575	584	515	4.20	4.25	4.37	4.32	0.93	0.85	0.81	0.84	94	89	88	88

PTA KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
THERAPEUTIC MODALITIES																
Applications, indications, contraindications, and precautions of:																
- thermal modalities	1,037	561	598	494	4.48	4.15	4.14	4.31	0.78	1.03	1.01	0.92	97	88	85	86
- iontophoresis	1,022	561	598	494	4.01	3.31	3.22	3.37	1.15	1.25	1.28	1.24	85	84	77	81
- electrotherapy modalities, excluding iontophoresis (e.g., neuromuscular electrical stimulation (NMES), transcutaneous electrical nerve stimulation (TENS), functional electrical stimulation (FES), interferential therapy, high-voltage pulsed current)	1,033	561	598	494	4.49	4.15	4.14	4.29	0.77	1.02	0.99	0.90	97	88	85	87
- light modalities (e.g., laser light therapy, LED light therapy)	1,015	561	598	494	3.75	2.98	3.00	3.16	1.27	1.24	1.27	1.30	78	79	75	77
- phonophoresis	1,007	561	598	494	3.76	2.94	2.96	3.11	1.28	1.31	1.31	1.31	77	76	73	76
- ultrasound modalities, excluding phonophoresis	1,027	561	598	494	4.31	3.78	3.82	3.95	0.94	1.22	1.21	1.15	93	85	81	85
- mechanical modalities (e.g., mechanical motion devices, traction devices)	1,028	561	598	494	4.24	3.77	3.78	3.93	0.98	1.08	1.16	1.10	92	88	82	85
- biofeedback	1,022	561	598	494	3.76	3.45	3.32	3.54	1.19	1.13	1.19	1.11	81	86	79	85
- diathermy	987	561	598	494	3.65	2.73	2.82	3.05	1.34	1.40	1.39	1.33	72	68	67	74
- intermittent compression	1,028	561	598	494	3.83	3.26	3.29	3.55	1.17	1.14	1.17	1.10	83	85	80	84
SAFETY & PROTECTION																
Factors influencing safety and injury prevention (e.g., safe patient handling, fall prevention, equipment maintenance, environmental safety)	996	575	584	515	4.78	4.82	4.80	4.83	0.50	0.44	0.47	0.44	99	89	88	88
The function and implications and related precautions of intravenous lines, tubes, catheters, monitoring devices, and mechanical ventilators/oxygen delivery devices	995	575	584	515	4.34	4.37	4.38	4.38	0.89	0.85	0.87	0.82	95	89	88	88
Emergency preparedness (e.g., CPR, first aid, disaster response)	996	575	584	515	4.51	4.57	4.54	4.62	0.77	0.72	0.75	0.67	97	89	88	88
Infection control procedures (e.g., standard/universal precautions, isolation techniques, sterile technique)	995	575	584	515	4.72	4.74	4.69	4.74	0.60	0.56	0.63	0.54	99	89	88	88

PTA KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Signs/symptoms of physical, sexual, and psychological abuse and neglect	995	575	584	515	4.39	4.47	4.47	4.47	0.86	0.75	0.78	0.77	96	89	88	88
PROFESSIONAL RESPONSIBILITIES																
Standards of documentation	994	572	584	512	4.68	4.74	4.71	4.69	0.58	0.57	0.55	0.57	100	88	88	88
Standards of professional ethics	994	572	584	512	4.79	4.83	4.82	4.82	0.47	0.44	0.45	0.45	100	88	88	88
Standards of billing, coding, and reimbursement	993	572	584	512	4.21	4.37	4.34	4.23	0.98	0.90	0.86	0.88	92	88	88	87
Patient/client rights (e.g., ADA, IDEA, HIPAA, patient bill of rights)	994	572	584	512	4.63	4.72	4.71	4.70	0.66	0.58	0.56	0.59	99	88	88	88
Obligations for reporting illegal, unethical, or unprofessional behaviors (e.g., fraud, abuse, neglect)	994	572	584	512	4.65	4.75	4.72	4.69	0.63	0.54	0.57	0.63	99	88	88	88
State and federal laws, rules, regulations, and industry standards set by state and accrediting bodies (e.g., state licensing entities, Joint Commission, CARF, CMS)	994	572	584	512	4.50	4.60	4.58	4.57	0.80	0.71	0.67	0.72	96	88	88	87
Risk management and quality assurance (e.g., policies and procedures, incident reports, peer chart review)	991	572	584	512	4.14	4.26	4.29	4.25	0.98	0.92	0.87	0.87	92	88	88	87
Human resource legal issues (e.g., OSHA, sexual harassment)	990	572	584	512	4.09	4.20	4.20	4.22	0.99	0.93	0.93	0.90	91	88	88	87
Roles and responsibilities of the PT, PTA, other healthcare professionals, and support staff	994	572	584	512	4.64	4.71	4.71	4.73	0.65	0.58	0.56	0.53	99	88	88	88
Cultural factors and/or characteristics that affect patient/client management (e.g., language differences, disability, ethnicity, customs, demographics, religion)	993	571	582	510	4.26	4.18	4.07	4.22	0.89	0.87	0.89	0.81	95	88	87	87
Socioeconomic factors that affect patient/client management	992	571	582	510	3.79	4.08	3.97	4.09	0.97	0.89	0.89	0.86	90	88	87	87
Health information technology (e.g., electronic medical records, telemedicine)	992	571	582	510	3.86	4.02	4.01	4.00	0.99	0.93	0.96	0.90	90	88	87	87
TEACHING & LEARNING THEORIES																
Teaching and learning theories and techniques	987	571	582	510	3.61	3.87	3.88	3.96	1.03	0.97	0.99	0.93	85	88	87	87
Health behavior change models (e.g., social cognitive theory, health belief model)	984	571	582	510	3.35	3.70	3.75	3.82	1.07	1.01	0.99	0.95	78	87	86	86

PTA KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Communication methods and techniques (e.g., motivational interviewing, health information brochures/handouts, feedback techniques)	989	571	582	510	3.64	3.93	3.89	3.94	1.09	0.98	1.01	1.00	84	88	87	86
RESEARCH & EVIDENCE-BASED PRACTICE																
Techniques for accessing evidence (e.g., peer-reviewed publications, scientific proceedings, guidelines, clinical prediction rules)	1,018	559	596	494	3.29	3.56	3.55	3.64	1.11	1.07	1.02	1.04	74	87	84	86
Research methodology and interpretation (e.g., qualitative, quantitative, levels of evidence)	1,017	559	596	494	3.07	3.31	3.39	3.46	1.07	1.08	1.02	1.06	69	85	83	85
Measurement science (e.g., reliability, validity)	1,021	559	596	494	3.29	3.45	3.55	3.64	1.10	1.10	1.01	1.03	75	85	84	86
Data collection techniques (e.g., surveys, direct observation)	1,021	559	596	494	3.12	3.28	3.45	3.55	1.12	1.10	1.06	1.09	69	85	83	85
SKILLS																
Active listening - Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times	1,032	558	593	493	4.75	4.84	4.79	4.83	0.53	0.42	0.51	0.46	100	89	85	87
Speaking - Talking to others to convey information effectively	1,032	558	593	493	4.73	4.83	4.77	4.80	0.53	0.42	0.49	0.45	100	89	85	87
Reading Comprehension - Understanding written sentences and paragraphs in work related documents	1,032	558	593	493	4.63	4.73	4.67	4.72	0.62	0.53	0.57	0.55	99	89	85	87
Critical Thinking - Using logic and clinical reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems	1,032	558	593	493	4.70	4.79	4.80	4.83	0.56	0.48	0.46	0.43	100	89	85	87
Social Perceptiveness - Being aware of others' reactions and understanding why they react as they do	1,032	558	593	493	4.60	4.75	4.70	4.76	0.66	0.53	0.55	0.51	99	89	85	87
Time Management - Managing one's own time and the time of others	1,032	558	593	493	4.62	4.76	4.73	4.73	0.62	0.50	0.53	0.55	100	89	85	87
Coordination - Adjusting actions in relation to others' actions	1,032	558	592	492	4.52	4.60	4.54	4.57	0.69	0.61	0.67	0.64	99	89	85	87
Writing - Communicating effectively in writing as appropriate for the needs of the audience	1,032	558	592	492	4.54	4.60	4.54	4.58	0.70	0.61	0.66	0.62	99	89	85	87

PTA KSRs	Importance															
	n				M				SD				%Imp			
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020
Active Learning - Understanding the implications of new information for both current and future problem solving and decision-making	1,032	558	592	492	4.55	4.65	4.56	4.64	0.66	0.59	0.65	0.57	99	89	85	87
Persuasion - Persuading others to change their minds or behavior	1,028	558	592	492	3.89	3.92	3.90	4.02	1.06	0.99	1.01	0.97	89	88	84	86
Negotiation - Bringing others together and trying to reconcile differences	1,022	558	592	492	3.84	4.06	4.03	4.13	1.03	0.93	0.90	0.92	88	89	85	86
Service Orientation - Actively looking for ways to help people	1,029	558	592	492	4.30	4.45	4.39	4.53	0.84	0.76	0.77	0.71	96	89	85	87

Note. Boldface mean (Red) indicates the mean importance value was less than 2.50. Light red shading indicates the 2019 mean importance value was below 2.50 (Criticality Threshold). Light orange shading indicates the 2019 mean importance value was between 2.50 (including) and 3.00 (excluding).

Appendix C. Notable Mean Differences Across Years

Table C.1: Statistics and Formatting Key:

- **Sample Size (n):** Count of respondents that provided usable data
- **Mean Importance (M):** Based on responses for scale points 1 through 5
- **Standard Deviation of Importance (SD):** Based on responses for scale points 1 through 5
- **Mean Difference (M-Diff):** Difference between mean importance ratings across years (Y0=2016, Y1=2018, Y2=2019, Y3=2020)

- **Boldface Mean (Red):** Mean importance value was less than 2.50 (Criticality Threshold)
- **Boldface M-Diff (Green):** Mean difference value was greater than 0.50
- **Boldface M-Diff (Red):** Mean difference value was less than -0.50

Table C.1. Notable Mean Differences Across Years

	Importance												M-Diff				
	n				M				SD								
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	Y1-0	Y2-1	Y2-0	Y3-1	Y3-0
PT KSRs																	
The impact of pharmacology used to treat the cardiovascular/pulmonary system on physical therapy management	1,008	274	1,032	982	3.10	3.11	3.72	3.72	0.97	0.99	0.93	0.93	0.01	**0.61**	0.00	**0.61**	**0.62**
The impact of pharmacology used to treat the musculoskeletal system on physical therapy management	1,010	274	1,006	993	3.18	3.27	3.72	3.73	0.87	0.86	0.86	0.86	0.09	0.45	0.01	0.46	**0.55**
The impact of pharmacology used to treat the neuromuscular and nervous systems on physical therapy management	947	268	977	960	3.22	3.24	3.75	3.75	0.98	0.93	0.92	0.89	0.03	**0.51**	0.00	**0.51**	**0.53**
The impact of pharmacology used to treat the metabolic and endocrine systems on physical therapy management	891	261	938	924	2.85	2.90	3.38	3.41	0.97	0.93	0.97	0.95	0.06	0.48	0.03	**0.51**	**0.56**
The impact of pharmacology used to treat the gastrointestinal system on physical therapy management	854	258	926	912	**2.49**	2.57	3.06	3.06	0.91	0.93	1.00	0.97	0.09	0.49	-0.01	0.48	**0.57**
The impact of pharmacology used to treat the genitourinary system on physical therapy management	835	255	917	903	**2.42**	**2.49**	2.95	2.92	0.95	1.00	1.04	1.02	0.07	0.46	-0.03	0.44	**0.50**
The impact of pharmacology used to treat multiple systems, including polypharmacy, on physical therapy management	913	253	917	888	3.42	3.53	3.99	3.93	0.98	0.98	0.88	0.89	0.11	0.46	-0.06	0.40	**0.51**
Applications, indications, contraindications, and precautions of: iontophoresis	889	252	912	886	3.73	3.00	3.15	2.98	1.19	1.18	1.20	1.23	**-0.73**	0.15	-0.17	-0.02	**-0.75**
Applications, indications, contraindications, and precautions of: light modalities (e.g., laser light therapy, LED light therapy)	875	252	912	886	3.44	2.72	2.92	2.85	1.29	1.26	1.22	1.23	**-0.71**	0.20	-0.07	0.13	**-0.59**
Applications, indications, contraindications, and precautions of: phonophoresis	875	252	912	886	3.45	2.65	2.82	2.69	1.31	1.24	1.23	1.29	**-0.80**	0.17	-0.13	0.04	**-0.76**

	Importance												M-Diff				
	n				M				SD								
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	Y1-0	Y2-1	Y2-0	Y3-1	Y3-0
Applications, indications, contraindications, and precautions of: ultrasound modalities, excluding phonophoresis	888	252	912	886	3.83	3.17	3.33	3.15	1.17	1.30	1.29	1.31	**-0.66**	0.16	-0.19	-0.03	**-0.69**
Applications, indications, contraindications, and precautions of: diathermy	828	252	909	886	3.06	**2.21**	2.55	**2.37**	1.40	1.23	1.31	1.23	**-0.85**	0.34	-0.17	0.17	**-0.69**
PT WAs																	
Interpret each of the following types of data to determine the need for intervention or the response to intervention: Neuromuscular system	271	431	676	653	3.98	4.66	4.62	4.60	0.86	0.64	0.64	0.65	**0.68**	-0.04	-0.02	-0.06	**0.62**
Interpret each of the following types of data to determine the need for intervention or the response to intervention: Functional mobility, balance, and vestibular	276	431	676	653	4.14	4.67	4.63	4.64	0.79	0.64	0.64	0.64	**0.53**	-0.04	0.01	-0.03	**0.50**
Perform dry needling	295	491	779	805	**2.27**	2.90	2.89	2.91	1.18	1.37	1.44	1.39	**0.62**	-0.01	0.02	0.01	**0.63**
Perform and/or train patient/client/caregiver in iontophoresis	237	458	712	746	2.82	2.53	**2.36**	**2.22**	1.04	1.21	1.22	1.18	-0.29	-0.18	-0.13	-0.31	**-0.60**
Perform and/or train patient/client/caregiver in phonophoresis	209	456	706	743	2.56	**2.29**	**2.10**	**2.03**	1.18	1.25	1.30	1.27	-0.27	-0.19	-0.07	-0.26	**-0.53**
Perform and/or train patient/client/caregiver in ultrasound procedures	262	456	706	743	3.08	2.59	**2.49**	**2.20**	1.17	1.28	1.36	1.21	-0.49	-0.10	-0.30	-0.39	**-0.88**
PTA KSRs																	
The impact of pharmacology used to treat the cardiovascular/pulmonary system on physical therapy management	1,099	625	696	565	2.84	3.07	3.52	3.56	0.99	0.96	0.98	0.97	0.23	0.45	0.04	0.49	**0.72**
The impact of pharmacology used to treat the neuromuscular and nervous systems on physical therapy management	1,061	624	640	561	3.09	3.25	3.68	3.63	1.05	0.99	0.94	0.93	0.16	0.42	-0.05	0.38	**0.54**

	Importance												M-Diff				
	n				M				SD								
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	Y1-0	Y2-1	Y2-0	Y3-1	Y3-0
The impact of pharmacology used to treat the integumentary system on physical therapy management	1,041	569	621	506	2.77	2.88	3.32	3.41	1.06	0.98	0.97	1.00	0.11	0.44	0.10	**0.53**	**0.64**
The impact of pharmacology used to treat the metabolic and endocrine systems on physical therapy management	1,019	593	607	535	2.77	2.98	3.34	3.31	0.98	0.99	0.96	0.97	0.22	0.36	-0.03	0.33	**0.54**
The impact of pharmacology used to treat the gastrointestinal system on physical therapy management	974	586	596	528	**2.48**	2.64	3.03	3.02	0.93	0.98	1.01	0.97	0.15	0.39	-0.01	0.38	**0.53**
The impact of pharmacology used to treat the genitourinary system on physical therapy management	951	579	589	519	**2.40**	2.52	2.91	2.95	0.95	0.95	1.04	1.01	0.12	0.39	0.04	0.43	**0.55**
The impact of pharmacology used to treat multiple systems, including polypharmacy, on physical therapy management	1,018	564	607	497	3.06	3.30	3.72	3.74	1.00	1.00	0.95	0.98	0.24	0.42	0.02	0.44	**0.68**
Applications, indications, contraindications, and precautions of: iontophoresis	1,022	561	598	494	4.01	3.31	3.22	3.37	1.15	1.25	1.28	1.24	**-0.71**	-0.09	0.15	0.06	**-0.64**
Applications, indications, contraindications, and precautions of: light modalities (e.g., laser light therapy, LED light therapy)	1,015	561	598	494	3.75	2.98	3.00	3.16	1.27	1.24	1.27	1.30	**-0.77**	0.02	0.16	0.18	**-0.59**
Applications, indications, contraindications, and precautions of: phonophoresis	1,007	561	598	494	3.76	2.94	2.96	3.11	1.28	1.31	1.31	1.31	**-0.82**	0.02	0.15	0.17	**-0.65**
Applications, indications, contraindications, and precautions of: diathermy	987	561	598	494	3.65	2.73	2.82	3.05	1.34	1.40	1.39	1.33	**-0.92**	0.09	0.23	0.32	**-0.59**
PTA WAs																	
Perform tests and measures of acquisition and evolution of motor skills throughout the lifespan	114	235	442	240	3.19	3.44	3.51	3.75	1.34	1.18	1.16	1.09	0.24	0.08	0.24	0.31	**0.56**
Apply taping for neuromuscular reeducation	176	284	514	364	3.26	4.10	4.09	3.94	1.13	1.04	1.13	1.21	**0.84**	-0.02	-0.15	-0.16	**0.68**
Apply taping for pain management	174	284	514	364	3.22	4.06	4.10	3.97	1.17	1.14	1.04	1.19	**0.84**	0.04	-0.13	-0.09	**0.75**

	Importance												M-Diff				
	n				M				SD								
	2016	2018	2019	2020	2016	2018	2019	2020	2016	2018	2019	2020	Y1-0	Y2-1	Y2-0	Y3-1	Y3-0
Educate the healthcare team about safe patient handling (e.g., injury prevention, ergonomics, use of equipment)	181	266	486	347	4.13	4.46	4.63	4.68	0.89	0.85	0.71	0.69	0.33	0.17	0.04	0.21	**0.54**

Note. Values in green font indicate an increase in mean importance of greater than 0.5. Values in red font indicate a decrease in mean importance of greater than 0.5.