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Exploring Practice Re-entry Among PTs and PTAs

Summary Report

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Exploring Practice Re-entry Among PTs and PTAs

In January 2022, the Federation of State Boards of Physical Therapy/Healthcare Regulatory Research Institute (FSBPT/HRRI) commissioned the Human Resources Research Organization (HumRRO) to conduct an exploratory study of the impact of extended leaves of absence on physical therapy practice, using existing practice analysis data. The study represents a first step toward understanding the nature, causes, and effects of extended leaves of absences on practitioners and the overall practice. The study was carried out during the first quarter of 2022 (February–March). This document provides a summary of the study methodology and initial results.

Background

Data for the study were collected in 2021 during FSBPT's annual practice analysis survey and consist of (a) information about respondents and (b) characteristics of the work they perform. The survey consisted of two sections. The first section was a background questionnaire containing questions about respondents' experience and demographic characteristics, including age, race, ethnicity, academic degree, licensure year and country, work setting, area of responsibility, patient population characteristics, and so forth. The second section was split into two subsections: a knowledge and skills requirements (KSR) survey or a work activity (WA) survey. These subsections included statements describing knowledge or skills needed by entry-level practitioners to provide safe and effective care or work activities that entry-level practitioners perform to provide safe and effective care. Respondents rated the importance of the KSRs or WAs.

The samples of respondents consisted of physical therapists (PTs) and physical therapist assistants (PTAs) who responded to the KSR survey or the WA survey. Table 1 provides information about the sample cohorts. The samples were predominantly female (~73%), white (~75%), and not Hispanic (90%). Most respondents reported the employment status as actively employed full-time (~74%), and they tended to work in suburban (~45%) or urban/metropolitan (~34%) settings. Respondents spent most of their time (over the past 12 months) in direct patient care (~80%) and had never had an extended period of absence from practice (~75%).

Table 1. Sample Cohorts

Sample Cohort	Years of Experience	Provided Ratings of the Importance of:
PT KSR*	3 or more	KSRs needed by entry-level PTs
PTA KSR	3 or more	KSRs needed by entry-level PTAs
PT WA	1 to 2	WAs performed by entry-level PTs
PTA WA	1 to 2	WAs performed by entry-level PTAs

Note. A subset of the respondents in the PT KSR sample (n=253, 26%) provided ratings of the PTA KSRs because they indicated that they supervise PTAs and have a good understanding of the knowledge and skills PTAs need to provide safe and effective care.

Analysis Planning

The study was designed to explore two research questions:

- Are certain demographic or background characteristics associated with PTs and PTAs who took extended leaves of absence?

- Are there significant differences in KSR and/or WA importance ratings between those respondents who did and did not take an extended leave of absence?

The technical approach involved identifying variables to include in the analyses and examining differences in demographic characteristics, response frequencies, and/or mean ratings between respondents who did and did not indicate taking an extended absence from physical therapy practice. It is worth noting that the survey was not designed with the primary goal of investigating the phenomenon of extended leaves of absence. The surveys did not collect data on when the leaves of absence occurred or if they were voluntary or involuntary. In addition, the surveys did not explore respondents' reasons for taking voluntary leaves of absence or conditions that precipitated their leaves of absence. Finally, some analyses were not feasible due to very small sample sizes (n < 50).

The analysis procedure involved creating a new analysis variable representing leaves of absence categories based on the following survey question:

- *Have you ever had an extended period of time (more than three months) away from actively working as a physical therapist [physical therapist assistant]?*
    - *No, I have never had an extended break from my work*
    - *Yes, lasting 3 to 6 months*
    - *Yes, lasting 6 to 12 months*
    - *Yes, lasting 12 to 18 months*
    - *Yes, lasting 18 to 36 months*
    - *Yes, lasting 3 to 5 years*
    - *Yes, lasting 5 to 10 years*
    - *Yes, lasting greater than 10 years*

Please note that the phrasing of the question varied depending on the sample cohort (i.e., physical therapists versus physical therapist assistants). Table 2 illustrates the subgroup variable categories. Due to small sample sizes, we combined respondents reporting absences ranging from 6 to 36 months.

Table 2. Subgroup Variable Categories for Extended Leaves of Absence

Category	Response Options	Count				Percent			
		PT KSR	PTA KSR	PT WA	PTA WA	PT KSR	PTA KSR	PT WA	PTA WA
1	No, I have never had an extended break from my work	1,481	713	742	330	74.3	72.5	82.8	71.1
2	Yes, lasting 3 to 6 months	306	138	113	85	15.4	14.0	12.6	18.3
3	Yes, lasting 6 to 12 months	88	63	18	30	4.4	6.4	2.0	6.5
3	Yes, lasting 12 to 18 months	38	28	10	10	1.9	2.8	1.1	2.2
3	Yes, lasting 18 to 36 months	27	13	7	5	1.4	1.3	0.8	1.1
--	Yes, lasting 3 to 5 years	31	20	3	1	1.6	2.0	0.3	0.2
--	Yes, lasting 5 to 10 years	10	9	2	2	0.5	0.9	0.2	0.4
--	Yes, lasting greater than 10 years	11	0	1	0	0.6	0.0	0.1	0.0

The analyses involved splitting the dataset by category (1, 2, or 3), computing descriptive statistics (e.g., response frequencies, means, standard deviations), and comparing select demographic variables to investigate potentially interesting or unexpected differences across subgroups. The principal subgroups included:

- Gender (Male, Female)

- Race (American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, White)

- Primary Clinical Work Setting (Urban/Metropolitan, Suburban, Rural)

- Percentage of time spent in direct patient care (0 to 50%, 51 to 75%, 76 to 100%)

- Principal areas of responsibility at primary work setting, excluding direct patient care (None, Administration/Management, Supervision, Consultation, Research, Sales/Marketing, Academic education, Clinical education)

We also evaluated KSR and WA importance ratings by subgroup to identify statistically significant differences in mean ratings. The next section provides a summary of the analysis results.

Results Summary

PT KSR & PTA KSR

- PT and PTA KSR respondents were more likely to report shorter leaves of absence of 3 to 6 months compared to absences lasting 6 to 36 months. However, PTA KSR respondents were more likely than PT KSR respondents to report a leave of absence of 6 to 36 months.

- PT and PTA KSR respondents identifying as female (16 to 18%) were two times more likely to report a leave of absence of 3 to 6 months compared to respondents identifying as male (8 to 9%).

- Compared to respondents identifying as White (16%), PTA KSR respondents identifying as Asian were slightly less likely to report a leave of absence of 3 to 6 months (12%) and slightly more likely to report a leave of absence of 6 to 36 months (10% versus 13%, respectively). Note: Due to small sample sizes ($n < 50$), results for American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, and Black or African American are not reported.

- Working in rural settings *might* be associated with a lower likelihood of taking a leave of absence. PT and PTA KSR respondents working in rural settings were slightly less likely (by 2% to 4%) to report a leave of absence of 3 to 6 months compared to those working in other settings.

- Spending less than 50% of one's time providing direct patient care *might* be associated with a propensity for taking extended leaves of absence (of any duration). PT and PTA KSR respondents who spent 50% or less of their time in direct patient care were two to three times more likely to report an extended leave of absence of 6 to 36 months than respondents who reported spending more than 50% of their time in direct patient care.

- Having no responsibilities other than direct patient care *might* be associated with a propensity for taking leaves of absence of 3 to 6 months. PT KSR respondents who indicated no additional areas of responsibility beyond direct patient care were more likely to report a leave of absence of 3 to 6 months (20%) versus respondents who reported responsibilities in administration/management or supervision (13%), consultation (15%), or clinical education (17%). Results for the PTA KSR respondents showed a similar pattern: no other responsibilities (16%), administration/management or supervision (10%), consultation (8%), or clinical education (13%).

PT WA & PTA WA

- PT and PTA WA respondents were more likely to report a leave of absence of 3 to 6 months compared to 6 to 36 months. However, PTA WA respondents were more likely to report they took a leave of absence (of any duration) compared to PT WA respondents.

- PTA WA respondents identifying as female were three times more likely to report a leave of absence of 6 to 36 months (12% of females) compared to respondents identifying as male (4% of males). In addition, female PTA WA respondents were more likely to report a 3 to 6 month leave of absence (19%) compared to male respondents (16%).

- PT WA respondents identifying as Asian were nearly two times more likely to report a 3 to 6 month leave of absence (18%) than respondents identifying as White (10%), and approximately six times more likely to report a 6 to 36 month leave of absence (13% versus 2%, respectively).

- PTA WA respondents identifying as Asian were 1.6 times more likely to report a leave of absence of 6 to 36 months (15%) than those identifying as White (9%). Note: Due to small sample sizes ($n < 50$), results for American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, and Black or African American are not reported.

- Working in rural settings *might* be associated with a lower likelihood of taking a leave of absence. PT WA respondents working in rural settings were slightly less likely to report a leave of absence of 3 to 6 months (9%), compared to those working in suburban (12%) or urban/metropolitan (14%) settings.

- Spending 51% to 75% of one's time providing direct patient care *might* be associated with taking extended leaves of absence (of any duration). PT and PTA WA respondents who spent 51% to 75% of their time in direct patient care were 1.5 to 2 times more likely to report taking a leave of absence of 3 to 6 months, compared to respondents who spent 76% to 100% of their time in direct patient care.

- For PTA WA respondents, having no responsibilities other than direct patient care *might* be associated with taking extended leaves of absence of 3 to 6 months. Roughly 28% of the PTA WA respondents who indicated no additional areas of responsibility beyond direct patient care reported an extended leave of absence (of any duration). This was 6% higher than respondents who indicated having responsibilities in administration/management or clinical education.

Subgroup Differences

To explore the possibility that taking a leave of absence is associated with meaningful differences in the level of importance that survey respondents ascribe to the KSRs and WAs, we analyzed subgroup differences using independent samples t-tests and Cohen's *d* statistic. Three distinct subgroups were included in the subgroup differences analyses. Group 1 comprised respondents who had never taken an extended leave of absence. Group 2 comprised respondents who had taken a 3 to 6 month leave of absence. Group 3 comprised respondents who had taken a 6 to 36 month leave of absence. The results below summarize analyses where both subgroup samples are greater than or equal to 50 cases. It is worth mentioning that the small sample sizes might contribute to instability in the results due to sampling errors or other artifacts in the data. Readers are advised to treat the results as observational.

Group 1 vs Group 2

Subgroup differences analyses involving Group 1 and Group 2 identified few KSR and WA statements with a statistically significant difference between the group's mean importance ratings. The differences between groups were small, ranging from 0.09 to 0.64 scale points. In addition, the inclusion of Group 1 and Group 2 respondents' data in the calculation of the overall mean importance ratings resulted in very small changes to the overall mean importance ratings (no more than ± 0.12 scale points) and is unlikely to substantively change the decisions made about the KSR and WA statements in relation to the NPTE blueprint. A complete summary of

mean importance ratings for flagged KSR and WA statements for both Group 1 and Group 2 can be found in Appendix A.

PT KSR Sample

- Nine of the 154 total PT KSR statements were flagged for statistically significant differences in mean importance ratings across groups.

- Flagged KSRs are associated with the Integumentary System (2), Musculoskeletal System (3) and Metabolic and Endocrine System (4).

- Differences in mean ratings between Group 1 and Group 2 are small (or negligible), with differences ranging from 0.09 to 0.26 scale points.

PTA KSR Sample

- Eight of the 154 total PTA KSR statements were flagged for statistically significant differences in mean importance ratings across groups.

- Flagged KSRs are associated with Safety and Protection (3), Musculoskeletal System (2), Professional Responsibilities (1), Neuromuscular and Nervous Systems (1) and Therapeutic Modalities (1).

- Differences in mean importance ratings are small, with differences ranging from 0.19 to 0.45 scale points.

PT WA Sample

- Nine of the 242 total PT WA statements were flagged for statistically significant differences in the mean importance ratings across groups.

- Flagged WAs are associated with Therapeutic Exercise/Therapeutic Activities (4), Manual Therapy Techniques (3), and Functional Training (2).

- Differences in mean importance ratings are small, with differences ranging from 0.27 to 0.64 scale points.

PTA WA Sample

- Two of the 242 total PTA WA statements flagged for statistically significant differences in the mean importance ratings across groups.

- Flagged WAs are associated with Information Gathering & Synthesis (2).

- Differences in mean importance ratings are small, with differences ranging from 0.25 to 0.42 scale points.

Group 1 vs Group 3

Subgroup differences analyses involving Group 1 and Group 3 identified few KSR statements with a statistically significant difference between the group's mean importance ratings. No WA statements were identified based on the analyses. The differences between groups were small, ranging from 0.15 to 0.35 scale points. In addition, the inclusion of Group 1 and Group 3 respondents' data in the calculation of the overall mean importance ratings resulted in very small changes to the overall mean importance ratings (no more than ± 0.05 scale points) and is unlikely to substantively change the decisions made about the KSR and WA statements in relation to the NPTE blueprint. A complete summary of mean importance ratings for flagged KSR and WA statements for both Group 1 and Group 3 can be found in Appendix B.

PT KSR Sample

- Five of the 154 total PT KSR statements were flagged for statistically significant differences in mean importance ratings across groups.

- Flagged KSRs were associated with Safety and Protection (2), the Musculoskeletal System (1) and Neuromuscular and Nervous Systems (1).

- Differences in mean importance ratings are small, with differences ranging from 0.15 to 0.27 scale points.

PTA KSR Sample

- Three of the 154 total KSR statements were flagged for statistically significant differences in mean importance ratings across groups.

- Flagged KSRs were associated with the Genitourinary System (2) and the Musculoskeletal System (1)

- Differences in mean importance ratings are small, with differences ranging from 0.21 to 0.35 scale points.

Next Steps and Recommendations

The analyses summarized in this document represent a first step toward understanding the propensity of some PTs and PTAs to take extended leaves of absence. The analyses are explorative and offer more questions than answers. Although some questions might seem to have an obvious answer (e.g., Why are females more likely to take a leave of absence compared to males?), the data do not confirm or refute the conclusions we might draw. Thus, additional data are needed to illuminate meaningful patterns across PTs and PTAs. Below, we offer some suggestions for future research activities.

Collect Additional Data

HumRRO recommends gathering additional data points to help generate a deeper, comprehensive understanding of the phenomenon which will support the identification of future research questions that could lead to more substantive findings regarding leaves of absence. Below is a list of possible data elements that FSBPT/HRRI might consider. Please note, this list is not comprehensive, but rather illustrates several examples of new data points we think could lead to additional research.

- When leaves of absence were taken

- Total number of leaves of absence taken

- Reasons for taking leaves of absence
    - Examples: childbirth, education, specialized training, entrepreneurship, care for a family member, termination/layoff, personal injury, health/wellness concern, burnout, career change

- Reasons for returning to practice
    - Examples: receiving a job offer, income necessity, renewed motivation/interest, health recovery, career change

- Challenges experienced when returning to practice
    - Examples: knowledge or skill deficit, incomplete information about requirements, legal or regulatory hurdles, job availability

- Activities engaged in during absence to maintain competencies

- Activities engaged in upon return to practice to refresh competencies

Generate Hypotheses

Several factors might explain one's propensity to take leaves of absence at a given time during one's career. To understand which factors are meaningfully related to this propensity, hypotheses should be generated and tested using comparative samples of practitioners. Factors that could be explored using applied research techniques include:

- Person Variables
    - Work engagement – Engagement with the work itself (e.g., satisfaction, interest, person/job fit)
    - Patient commitment – Commitment or sense of duty to one's patient population

- Career flexibility/diversification – Presence of a second career (e.g., real estate agent), especially if the second career is more lucrative or more satisfying

- Work Variables
  - Patient volume – Imbalanced patient volume (e.g., too many patients, too few patients, inconsistent patients)
  - Numbers of coworkers – Imbalanced staffing (e.g., too many colleagues, too few colleagues)
  - Coworker or supervisor support – Level of support from colleagues or supervisors.
  - Work flexibility/diversification – Having too much or too little flexibility or diversity in one's tasks/assignments.

Conduct Interviews with Practitioners

In 2022, HumRRO staff interviewed a small sample of physical therapists and physical therapist assistants who had taken extended leaves of absence.[1] The purpose of these interviews was to explore four research questions regarding extended leaves of absence.

1. Factors that contributed to taking a leave of absence

2. Challenges experienced when returning to practice

3. Tools or resources used to return to practice

4. Support that would have been helpful during return to practice

These interviews offered interesting perspectives on the phenomenon; however, the small number of interviews limits the extent to which we can generalize the findings to the broader population of practitioners. Accordingly, we recommend continuing this line of research to collect more information from a larger, diverse group of practitioners.

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[1] Klein, K., Good, E., & Caramagno, J. (2022). *Time away study for the physical therapy profession: Report Memo 2022.* Human Resources Research Organization

Appendix A. Subgroup Differences: Group 1 and Group 2

Table A1. PT KSR Importance Ratings by Subgroup

KSR Statement	Mean Importance		Mean Δ (G2-G1)	Effect Size
	G1	G2		
Integumentary system tests/measures, including outcome measures, and their applications according to current best evidence	3.34	3.58	0.23	0.24
Adverse effects or complications on the integumentary system from physical therapy and medical/surgical interventions	3.79	4.05	0.26	0.26
Musculoskeletal system tests/measures, including outcome measures, and their applications according to current best evidence	4.73	4.63	-0.09	0.17
The impact of pharmacology used to treat the musculoskeletal system on physical therapy management	3.66	3.50	-0.16	0.18
The impact of regenerative medicine (e.g., platelet-rich plasma, stem cells) on physical therapy prognosis and interventions related to musculoskeletal diseases/conditions	3.15	2.99	-0.16	0.17
Differential diagnoses related to diseases/conditions of the metabolic and endocrine systems	3.68	3.47	-0.21	0.22
Metabolic and endocrine system diseases/conditions and their pathophysiology to establish and carry out the plan of care, including prognosis	3.68	3.43	-0.24	0.25
Non-pharmacological medical management of the metabolic and endocrine systems (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	3.33	3.15	-0.18	0.19
The impact of pharmacology used to treat the metabolic and endocrine systems on physical therapy management	3.40	3.17	-0.24	0.24

Table A2. PTA KSR Importance Ratings by Subgroup

KSR Statement	Mean Importance		Mean Δ (G2-G1)	Effect Size
	G1	G2		
Laser light therapy	2.88	2.43	-0.45	0.35
Musculoskeletal system physical therapy interventions and their applications for rehabilitation, health promotion, and performance according to current best evidence	4.55	4.76	0.21	0.34
Adverse effects or complications on the musculoskeletal system from physical therapy interventions	4.58	4.76	0.19	0.32
Adverse effects or complications on the neuromuscular and nervous systems from physical therapy interventions	4.32	4.51	0.19	0.26
The function and implications and related precautions of intravenous lines, tubes, catheters, monitoring devices, and mechanical ventilators/oxygen delivery devices	4.23	4.46	0.23	0.27
Emergency preparedness (e.g., CPR, first aid, disaster response)	4.44	4.72	0.29	0.39
Infection control procedures (e.g., standard/universal precautions, isolation techniques, sterile technique)	4.61	4.89	0.27	0.44
Signs/symptoms of physical, sexual, and psychological abuse and neglect	4.31	4.62	0.32	0.38

Table A3. PT WA Importance Ratings by Subgroup

KSR Statement	Mean Importance		Mean Δ (G2-G1)	Effect Size
	G1	G2		
Perform and/or train patient/client/caregiver in aerobic capacity/endurance conditioning	3.99	4.29	0.30	0.31
Perform and/or train patient/client/caregiver in body mechanics and postural stabilization techniques	4.40	4.72	0.31	0.37
Perform and/or train patient/client/caregiver in flexibility techniques	3.72	4.07	0.36	0.33
Perform and/or train patient/client/caregiver in relaxation techniques	3.42	3.87	0.45	0.41
Perform and/or train patient/client in instrumental activities of daily living (IADL) (e.g., household chores, hobbies)	3.90	4.22	0.32	0.30
Perform and/or train patient/client in mobility techniques	4.30	4.57	0.27	0.33
Perform peripheral mobilization/manipulation (thrust)	2.86	3.40	0.54	0.42
Perform cervical spinal manipulation (thrust)	2.65	3.29	0.64	0.46
Perform thoracic and lumbar spinal manipulation (thrust)	3.17	3.58	0.40	0.31

Table A4. PTA WA Importance Ratings by Subgroup

KSR Statement	Mean Importance		Mean Δ (G2-G1)	Effect Size
	G1	G2		
Gather information/discuss patient/client's current health status with interprofessional/interdisciplinary team members	4.23	3.81	-0.42	0.44
Identify signs/symptoms of change in patient/client's health status that require intervention by interprofessional/interdisciplinary team members	4.51	4.26	-0.25	0.33

Appendix B. Subgroup Differences: Group 1 and Group 3

Table B1. PT KSR Importance Ratings by Subgroup

KSR Statement	Mean Importance		Mean Δ (G2-G1)	Effect Size
	G1	G2		
Movement analysis as related to the musculoskeletal system	4.68	4.53	-0.15	0.27
Movement analysis as related to the neuromuscular and nervous systems	4.60	4.42	-0.18	0.29
Differential diagnoses related to diseases/conditions of the nervous system (CNS, PNS, ANS)	4.26	4.03	-0.23	0.27
Emergency preparedness (e.g., CPR, first aid, disaster response)	4.49	4.76	0.27	0.35
Infection control procedures (e.g., standard/universal precautions, isolation techniques, sterile technique)	4.60	4.79	0.20	0.28

Table B2. PTA KSR Importance Ratings by Subgroup

KSR Statement	Mean Importance		Mean Δ (G2-G1)	Effect Size
	G1	G2		
Musculoskeletal system tests/measures, including outcome measures, and their applications according to current best evidence	4.48	4.27	-0.21	0.29
Non-pharmacological medical management of the genitourinary system (e.g., diagnostic imaging, laboratory test values, other medical tests, surgical procedures)	2.74	3.08	0.34	0.33
Adverse effects or complications on the genitourinary system from physical therapy interventions	3.18	3.53	0.35	0.32