

Geriatric Referral Patterns for Physical Therapy: A Descriptive Analysis

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ABSTRACT

Purpose: The purposes of this study were to: (1) describe older adults being seen for physical therapy, (2) identify the most prevalent physician orders and physical therapy interventions, and (3) compare these results across US regions.

Methods: A written questionnaire was mailed to a random sample of 1600 therapists. Therapists completed information for up to 10 patients including classification of diagnosis according to the *Guide to Physical Therapist Practice*.

Analysis: Descriptive analyses were performed. **Results:** 118 therapists provided information on 839 patients. More of the patients were women (65%) than men (35%); their average age was 76.4 years. Most patients were seen in the outpatient setting (56%) and over 70% were classified into one of the musculoskeletal diagnostic categories. "Evaluate and treat" was present in 66.2% of the physician orders. The 6 most frequently performed interventions were in the therapeutic exercise category. **Conclusion:** Many physical therapists, even those who may not consider themselves geriatric physical therapists, are seeing older adults in a variety of settings. Knowledge about the diverse needs of older adults, therefore, is important for clinicians and students to meet the rising demand for quality physical therapy for this population.

Key Words: physical therapy, geriatrics, referral

INTRODUCTION

Since 1900, the number of Americans age 65 and older has increased more than ten-fold.¹ In the year 2000, Americans age 65 years and older (referred to in this paper as "older adults"), accounted for nearly 13% of the total population.¹ Older adults are the fastest growing segment of the population and the proportion of older Americans is expected to

continue increasing, especially as the 'baby boom' generation begins to turn 65. By 2030, the US population will consist of 70 million older adults who will account for approximately 20% of the total population.¹

Part of the population growth can be attributed to extended life expectancies. Life expectancy at birth has increased from 70 years in 1960 to 79 years for women and 74 years for men in 1997.¹ Although most older adults are well and live independently, as life expectancy increases the number of people living with chronic illness continues to grow.² Chronic conditions can negatively affect quality of life, contributing to declines in function and the inability to remain in the community.³ Cooper⁴ pointed out that Americans' number one concern about growing older was spending many years in a nursing home because of long-term illness or disability. Chronic health conditions also can become a financial burden, not only for the people who have them, but also on the nation's health care system.

Physical therapists (PTs), in combination with other health professionals, have the potential to improve function for many older adults with chronic illness. A physical therapy (PT) program consisting of balance and strength training, for example, can reduce disability and prevent further functional decline.⁵ Appropriate PT intervention for older adults can improve quality of life and potentially cut down on health care costs.⁵

If PTs are to adequately address the needs and concerns of older adults, however, they must be trained to meet the unique health care needs of older adults. Current PT curricula are faced with the task of providing a large body of information in a relatively short period of time. With limited time to spend on specialty areas such as geriatric rehabilitation, it is important to focus course content around the most common diagnoses encountered in clinical practice.

Unfortunately, little data exist regarding the most prevalent geriatric diagnoses and interventions. Kauffman and Jackson⁶ published a study in 1990, in which they described geriatric referral patterns to PT. Although their information is useful, the health care environment and PT practice has changed dramatically since the 1980s when their data was collected. Two other studies about geriatric referral patterns have been published but were specific to one setting or geographic location.^{7,8}

Knowledge of the most common diagnoses, reasons for referral, and interventions would arm PT programs and clinicians with data to focus training for effective and efficient examination and intervention. Given the paucity of information about current PT practice patterns for older adults, the purposes of this study were to: (1) describe older adults being seen for PT, (2) identify the most prevalent physician orders and PT interventions, and (3) compare these results across regions of the United States.

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METHODS

Participants

Data were collected from a survey that was sent to 1600 PTs. Therapists were randomly selected from a database of current APTA members. To assure equal representation throughout the country, the sample was stratified into Northeast, South, Midwest, and West regions with 400 therapists from each region. In the survey, therapists were asked to provide information for up to 10 patients who were 65 years or older who they were currently seeing or would be seeing in the next 3 weeks.

The survey instrument was based on a tool described in 1990 by Kauffman and Jackson.⁶ Modifications were made to incorporate concepts and terminology from the *Guide to Physical Therapist Practice*⁹ (Figure 1). Baseline information requested for each patient included age, gender, setting, medical diagnosis, and physician order. Therapists were asked to place each patient into 1 of the 4 primary practice patterns of the *Guide*: Musculoskeletal (MS), Neuromuscular (NM), Cardiovascular (CV), or Integumentary (I). Once the primary pattern was determined, therapists identified the specific practice pattern that most characterized the patient's condition and documented any interventions provided according to the direct interventions from the *Guide*.⁹ Space was provided to include comments about contributing comorbidities.

Procedure

A pilot study was conducted to determine the survey's ease of use. Results and comments from the pilot survey were used to revise the survey. The initial mailing was sent in early September 2001 to 1600 therapists (400 from each of 4 regions). A follow-up letter and duplicate survey were sent to therapists who did not return the survey after one month. A third mailing with a duplicate survey was sent approximately 2 months after the second mailing.

RESULTS

A total of 348 therapists responded. The overall response rate following the third mailing was 21.7% (348 surveys); however only 7.4% (118 surveys) included patients who could be included in the results. Nearly two-thirds of the respondents reported that they did not see patients 65 years and older. Seven surveys containing patient information were excluded from the study because they were not filled out correctly. Of the 118 useable surveys, data were provided for 839 patients with each survey containing information from 1 to 10 patients. Specifically, there was information provided about 157 respondents from the Northeast, 223 from the South, 277 from the Midwest, and 182 from the West.

The sample of 839 patients was made up of more women (65%) than men (35%) (Table 1). The average age was 76.4 years with more than 55% of the patients over the age of 75 years (Table 1). Average age was similar across the regions. Overall, more patients were seen in the outpatient setting than in all other settings combined (Table 2).

Physical therapy diagnoses, per the *Guide*⁹ categories, are illustrated in Figure 2. The majority of patients (70.7%) had conditions that placed them in the MS practice pattern. The

Table 1. Participant Demographics

Variable	Category	Number (%)
Gender	Female	545 (65.0)
	Male	294 (35.0)
Age	65-74 yrs	372 (44.3)
	75-84 yrs	326 (38.9)
	85-94 yrs	132 (15.7)
	95 + yrs	9 (1.1)

Table 2. Type of PT Facility Where Patients were Treated

Facility	Total (%)
Outpatient	470 (56.0)
Inpatient	111 (13.2)
Skilled Nursing	91 (10.9)
Home Care	78 (9.3)
Rehabilitation Center	34 (4.1)
Private Practice	22 (2.6)
Outpatient/Inpatient	16 (1.9)
Intermediate Care	10 (1.2)
Transitional Care	6 (0.7)
Total	839

Table 3. Ten Most Common Comorbidities for Patients

Comorbidities	Frequency (%)
Cardiac Conditions	23 (10.0)
Diabetes	19 (8.2)
Deconditioning	18 (7.8)
Spinal Conditions	17 (7.4)
Respiratory Conditions	16 (7.0)
Dementia/Alzheimer Disease	10 (4.3)
Cancer	9 (4.0)
Stroke	9 (4.0)
Balance and Falls	7 (3.0)
Osteoporosis	7 (3.0)

next most common practice pattern was NM (17%). A total of 231 comorbidities were reported (for 179 of 839 patients) with cardiac conditions being the most common (Table 3).

The most common physician diagnoses were conditions of the spine (20%), followed by total joint replacements (10.8%) and fractures (10%). Stroke was the most commonly reported neuromuscular condition but represented only 8.5% of the patients in this study (Table 4). "Evaluate and treat" or "PT consult" was included in 66.2% of all orders (Table 5).

The frequencies of the 9 direct interventions defined by the *Guide*⁹ are summarized in Table 6. Therapeutic exercise was the most frequently performed direct intervention (47.6%) and most patients received at least one form of therapeutic exercise (Table 7). Within the 9 direct intervention categories, there are 52 specific interventions. The 10 most common interventions are presented in Table 8.

Return rate, as well as useable surveys were similar across each region. Regional trends for gender, age, setting, diagnosis, order, and interventions were unremarkable. Data, therefore, were analyzed in aggregate.

DISCUSSION

The purposes of this study were to describe older adults being seen for PT, identify the most prevalent physician orders and PT interventions, and to compare results across

1. City & State: _____

2. Type of Facility: (circle one) Acute/Inpatient Skilled Nursing Intermediate Care Facility
 Outpatient Home Care Rehabilitation Center Other: _____

Patient No.	1	2	3	4	5	6	7	8	9	10
3. Age										
4. Gender (M or F)										
5. Physician Diagnosis <small>(print clearly)</small>										
6. Physician Order <small>(print clearly)</small>										
7. Practice Pattern <small>(write 1 for primary diagnosis and, if necessary, 2 for secondary diagnosis)</small>										
Musculoskeletal <small>(if "1" or "2" specify in question 8)</small>										
Neuromuscular <small>(if "1" or "2" specify in question 9)</small>										
Cardiovascular <small>(if "1" or "2" specify in question 10)</small>										
Integumentary <small>(if "1" or "2" specify in question 11)</small>										
8. Musculoskeletal Patterns <small>(write one "1" for the pattern corresponding with primary diagnosis in question 7 and, if necessary, one "2" for the pattern corresponding with the secondary diagnosis in question 7)</small>										
-Primary Prevention for Skeletal Demineralization										
-Impaired Posture										
-Impaired Muscle Performance										
-Impaired Joint Mobility, Motor Function, Muscle Performance and Range of Motion associated with Connective Tissue Dysfunction										
-Impaired Joint Mobility, Motor Function, Muscle Performance and Range of Motion associated with Localized Inflammation										
-Impaired Joint Mobility, Motor Function, Muscle Performance, Range of Motion and Reflex Integrity associated with Spinal Disorders										
-Impaired Joint Mobility, Muscle Performance, and Range of Motion associated with Fracture										
-Impaired Joint Mobility, Motor Function, Muscle Performance and Range of Motion associated Bony or Soft Tissue Surgery										
-Impaired Motor Function, Muscle Performance Range of Motion, Gait, Locomotion, and Balance associated with Amputation										

Figure 1. The survey instrument used in our study.

Patient No.

1 2 3 4 5 6 7 8 9 10

9. Neuromuscular Patterns (write one "1" for the pattern corresponding with primary diagnosis in question 7 and, if necessary, one "2" for the pattern corresponding with the secondary diagnosis in question 7)

-Primary prevention for Loss of Balance and Falling										
-Impaired Motor Function and Sensory Integrity associated with Nonprogressive Disorders of the CNS- Congenital Origin or Acquired in Infancy or Childhood										
-Impaired Motor Function and Sensory Integrity associated with Nonprogressive Disorders of the CNS- Acquired in Adolescence or Adulthood.										
-Impaired Motor Function and Sensory Integrity associated with Progressive Disorders of the CNS.										
-Impaired Peripheral Nerve Integrity and Muscle Performance associated with Peripheral Nerve Injury										
-Impaired Motor Function and Sensory Integrity associated with Acute or Chronic Polyneuropathies										
-Impaired Motor Function, Peripheral Nerve Integrity and Sensory Integrity associated with Nonprogressive Disorders of Spinal Cord										
-Impaired Arousal, Range of Motion, and Motor Control associated with Coma, Near Coma, or Vegetative State										

10. Cardiovascular Patterns (write one "1" for the pattern corresponding with primary diagnosis in question 7 and, if necessary, one "2" for the pattern corresponding with the secondary diagnosis in question 7)

-Primary Prevention for Cardiovascular or Pulmonary Disorders										
-Impaired Aerobic Capacity / Endurance associated with Deconditioning										
-Impaired Ventilation, Respiration / Gas Exchange and Aerobic Capacity / Endurance associated with Airway Clearance Dysfunction										
-Impaired Aerobic Capacity / Endurance Associated with Ventilatory Pump Dysfunction or Failure										
-Impaired Ventilation and Respiration / Gas Exchange associated with Respiratory Failure										
-Impaired circulation and Anthropometric Dimensions associated with Lymphatic System Disorders										

11. Integumentary Patterns (write one "1" for the pattern corresponding with primary diagnosis in question 7 and, if necessary, one "2" for the pattern corresponding with the secondary diagnosis in question 7)

-Primary Prevention for Integumentary Disorders										
-Impaired Integumentary Integrity associated with Superficial Skin Involvement										
-Impaired Integumentary Integrity associated with Partial-Thickness Skin Involvement and Scar Formation										
-Impaired Integumentary Integrity associated with Full-Thickness Skin Involvement and Scar Formation										
-Impaired Integumentary Integrity associated with Skin Involvement Extending Into Fascia, Muscle, or Bone and Scar Formation										

12. Additional Comorbidity (briefly describe any comorbidity that you feel was not adequately represented by the patterns above)

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13. Procedural Interventions (check all that apply)

-Therapeutic Exercise										
-Aerobic capacity / endurance conditioning										
-Balance, coordination, and agility training										
-Body mechanics and postural stabilization										
-Flexibility exercises										
-Gait and locomotion training										
-Neuromotor development training (movement pattern training)										
-Relaxation (breathing strategies, relaxation techniques)										
-Strength, power, endurance training for head, neck, limb, pelvic floor, trunk or ventilatory muscles										

Figure 1. Continued.

Patient No.

1 2 3 4 5 6 7 8 9 10

-Functional Training in Self-Care & Home Management

-ADL training (bathing, dressing, eating, grooming etc.)										
-Barrier accommodations or modifications										
-Device and equipment use and training (assistive, prosthetic or supportive device training)										
-Functional training programs (back schools, simulated tasks work conditioning, work hardening etc.)										
-IADL training (household chores, yard work, shopping etc.)										
-Injury prevention or reduction (safety awareness training etc.)										

-Functional Training in Work (Job,School,Play) Community, and Leisure

-Barrier accommodations or modifications										
-Device and equipment use and training (assistive, prosthetic or supportive device training)										
-Functional training programs (back schools, simulated tasks work conditioning, work hardening etc.)										
-IADL training (school and play activities, work training with tools)										
-Injury prevention or reduction (during work, safety awareness etc)										
-Leisure and play activities and training										

-Manual Therapy Techniques

-Manual lymphatic drainage										
-Manual traction										
-Massage (therapeutic or connective tissue)										
-Mobilization/Manipulation (soft tissue, spinal or peripheral joints)										
-Passive Range of Motion										

-Prescription, Application, and, as Appropriate, Fabrication of Devices and Equipment

-Adaptive devices (environmental controls, raised toilets etc)										
-Assistive devices (canes, crutches, wheelchairs, walkers etc)										
-Orthotic devices (braces, casts, shoe inserts, splints)										
-Prosthetic devices										
-Protective devices (braces, cushions, helmets, taping)										
-Supportive devices (compression garments, elastic wraps, slings supplemental oxygen, neck collars etc)										

-Airway Clearance Techniques

-Breathing strategies (pursed lip breathing, paced breathing, techniques to maximize ventilation, assisted cough etc)										
-Manual / Mechanical techniques (assistive devices, chest percussion, vibration, suctioning, ventilatory aids)										
-Positioning (to maximize ventilation, to alter work of breathing pulmonary postural drainage)										

-Integumentary Repair and Protection Techniques

-Debridement nonselective (wet / dry dressings, enzymatic debridement etc)										
-Debridement selective (debridement with other agents such as autolysis, sharp debridement, enzymatic debridement)										
-Dressings (hydrogels, wound coverings)										
-Oxygen therapy (supplemental, topical)										
-Topical agents (cleansers, creams, moisturizers, ointments)										

-Electrotherapeutic Modalities

-Biofeedback										
-Electrotherapeutic delivery of medications										
-Electrical stimulation (EMS, ESTR, TENS, FES, NMES)										

-Physical Agents and Mechanical Modalities

-Athermal agents (pulsed electromagnetic fields)										
-Cryotherapy (ice packs, ice massage, vapocoolant spray)										
-Hydrotherapy (contrast bath, pools, whirlpool tanks)										
-Light agents (infrared, laser, ultraviolet)										
-Sound agents (phonophoresis, ultrasound)										
-Thermotherapy (dry heat, hot packs, paraffin baths)										
-Compression therapies (compression bandaging, garments, taping, total contact casting)										
-Gravity assisted compression devices (tilt table, standing frame)										
-Mechanical motion devices (continuous passive motion)										
-Traction devices (intermittent, positional, sustained)										

Figure 1. Continued.

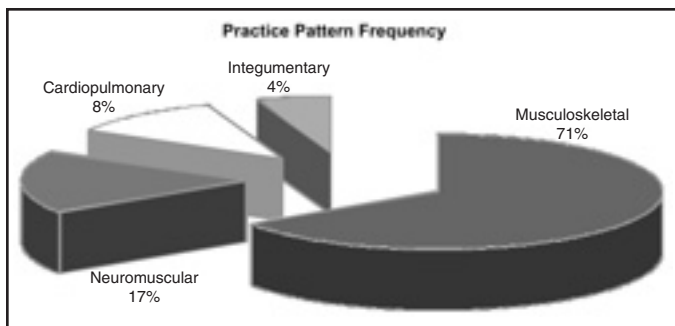


Figure 2. PT diagnoses of our sample in terms of Guide categories.

Table 4. Ten Most Common Physician Diagnoses Reported*

Physician Diagnosis*	Frequency (%)
Spinal Conditions	167 (20.0)
Low back pain	56 (6.7)
Degenerative joint disease, degenerative disc disease	30 (3.6)
Other: sprain, strain, stenosis, scoliosis, spondylolisthesis, kyphosis	81 (9.7)
Total Joint Replacement	91 (10.8)
Knee	43 (5.1)
Hip	40 (4.8)
Shoulder	8 (1.0)
Fractures	84 (10.0)
Lower extremity	56 (6.7)
Upper extremity	28 (3.3)
Stroke	71 (8.5)
Cardiopulmonary	51 (6.1)
Rotator Cuff	47 (5.6)
Gait Dysfunction	37 (4.4)
Degenerative Joint Disease/Osteoarthritis	37 (4.4)
Medical Complications	37 (4.4)
Wounds	28 (3.3)

*Categories for physician diagnoses determined by researchers

Table 5. PT Orders Prescribed by a Physician*

Order	Total (%)
Evaluate & Treat / Consult	555 (66.2)
Therapeutic Exercise	143 (17.0)
Gait Training	66 (7.9)
Modalities	56 (6.7)
Range of Motion	55 (6.6)
Protocol	24 (2.9)
Balance/Falls/Safety	22 (2.6)
Home Exercise Program	17 (2.0)
Wound Care	7 (0.8)
Aquatics	5 (0.6)
Endurance Training	5 (0.6)

*955 orders were given for 839 patients. The total percentage represents the likelihood that a patient presented with a particular order

regions of the United States. The majority of patients in this study were more than 75 years of age with an average age of 76.4 years. Kauffman and Jackson⁶ had a similar age representation with nearly 62% of their patients being more than 75 years of age. Two-thirds of our sample was female, which represents the gender trend in the United States. In 2000, women were estimated to account for 58% of the population of people age 65 and older and 70% for the population of people age 85 and older.¹

Table 6. Interventions Performed by PTs

	Total (%)
Therapeutic Exercise	2945 (47.6)
Functional Training in Self-care, Home	908 (14.7)
Functional Training in Work, Community, Leisure	191 (3.1)
Manual Therapy	672 (10.9)
Prescription, Application of Devices and Equipment	529 (8.6)
Airway Clearance	73 (1.2)
Integumentary Repair and Protection Techniques	120 (1.9)
Electrotherapeutic Modalities	144 (2.3)
Physical Agents and Mechanical Modalities	608 (9.8)
Total	6190 (100)

Table 7. Patients Who Received at Least One Form of Therapeutic Exercise

Pattern	Frequency (%)
Musculoskeletal	581 (98.0)
Neuromuscular	138 (97.2)
Cardiopulmonary	67 (95.7)
Integumentary	8 (23.5)

Table 8. Intervention Frequency

Intervention	Frequency (%)
Strength, Power, Endurance Training	624 (74.1)
Flexibility Exercises	521 (62.1)
Gait Training	494 (58.9)
Balance, Coordination, Agility Training	401 (47.8)
Aerobic Capacity / Endurance Conditioning	338 (40.3)
Body Mechanics and Postural Stabilization	316 (37.7)
Assistive Devices (prescription, application)	289 (34.5)
Device and Equipment Use and Training (functional training in self-care and home management)	267 (31.8)
Passive Range of Motion	254 (30.3)
Injury Prevention and Reduction (functional training in self-care and home management)	221 (26.3)
Mobilization / Manipulation	221 (26.3)

Therapists were asked to use the 4 primary practice patterns (MS, NM, CP, I) defined by the *Guide*⁹ to classify patients into clinical diagnostic categories. This step was taken in an attempt to incorporate *Guide*⁹ terminology and classification. We were unable to use the information regarding specific patterns (4A, 4B, etc.) within the primary patterns because therapists placed many of the patients into more than one specific practice pattern. It is possible that the instructions on the survey were unclear or confusing, however we feel the mistakes made were likely more indicative of unfamiliarity with the *Guide*⁹ in clinical practice.

More patients in our sample were seen in the outpatient setting than all other settings combined. According to demographic information provided by the APTA, almost half of its members (49.7%) work in outpatient facilities compared to inpatient (16.3%) or skilled nursing facilities (6.3%).¹⁰ This may explain the predominance of patients who were seen in outpatient facilities (56%) and the majority of musculoskeletal diagnoses (70.7%). Although Kauffman and Jackson⁶ did not report type of facility, their sample of therapists was seeing only 40% to 50% orthopedic conditions.

The NM practice pattern comprised 17% of our sample. Patients with stroke accounted for 50% of patients in the NM practice pattern but only 8.5% of the total sample. These findings are not consistent with results reported by Kauffman and Jackson.⁶ Neurologic conditions accounted for approximately 25% to 30% of their top 20 diagnoses. Patients with stroke comprised approximately three-fourths of their neurologic conditions and accounted for 18% of their entire sample.

Several plausible explanations for these differences exist. One centers on the myriad of changes in the health care environment and in reimbursement guidelines that have occurred since the Kauffman and Jackson⁶ study. The prevalence of patients in the outpatient setting in our study and of patients with stroke in the Kauffman and Jackson⁶ study may also be due to a hypothesized bias of their sample to geriatric rehabilitation. Therapists in the Kauffman and Jackson⁶ study were recruited from general continuing education conferences but also through Section on Geriatrics, APTA publications. It may be that therapists in their study were more likely to have a special interest in geriatric rehabilitation. We believe that many outpatient PTs working with primarily orthopedic patients do not consider themselves 'geriatric' PTs. It may be, therefore, that outpatient facilities and orthopedic diagnoses were not as widely represented in Kauffman and Jackson's⁶ study, and patients with stroke were not as widely represented in our study.

Less than one-fourth of our sample was reported as having comorbidities, which was less than expected. It is unclear if 75% of our sample was truly free of comorbidities or if therapists did not complete the comorbidity information that required writing in details, rather than a quick check-off format. Of the 231 comorbidities reported, cardiac conditions were the most common. It is widely recognized that risk of cardiac disease increases with age. In 1999, more than 6 million Americans were discharged from short-stay hospitals with a primary diagnosis of cardiovascular disease. Of these, nearly 65% were age 65 years or older.¹¹ Spinal conditions comprised 7.4% of the comorbidities, which adds to the predominance of spinal pathology (20%) already reported in this patient sample.

Information regarding physician referrals also was examined (Table 5). The prevalence of orders to 'evaluate and treat' represents the increasing responsibility placed on therapists to use their decision-making skills. This is consistent with the trend for nonspecific treatment orders, especially in the outpatient setting, reported by Clawson and Domholdt.¹² Nonspecific orders such as 'evaluate and treat' place responsibility on the PT to examine, evaluate, prognosticate, and determine the most appropriate plan of care. Academic programs, in turn, must meet the challenge of preparing PTs who are prepared in these areas.

Therapists characterized the interventions they administered by checking the appropriate *Guide*⁹ intervention category on the survey. Approximately half of all interventions performed were classified as therapeutic exercise (Table 6). Almost all of the patients in the MS (98%), NM (97.2%), and CP (95.7%) categories received some form of therapeutic exercise (Table 7). However, 41% of those who received at least

one therapeutic exercise were not described as receiving any functional training interventions. This implies that many patients who received therapeutic exercise were primarily treated at the impairment level. Because gait training is considered a form of therapeutic exercise according to the *Guide*,⁹ we re-examined this relationship with gait training as a form of functional training. In this analysis, 25.7% of those who received therapeutic exercise did not receive functional training. Therapists are either providing only impairment level intervention for these patients, or they were unable to accurately document intervention using the *Guide*⁹ categories.

Strength, power, and endurance training (74.1%) was the most common intervention in our study, with gait training third at 58.9%. Kauffman and Jackson⁶ reported gait training as their most frequently performed intervention (71%) and weakness (51.6%) as their second most common reason for PT. Again, there are several possible explanations for these differences in intervention frequency: the settings in which patients were seen and differences between current reimbursement guidelines and those in the 1980s. With the majority of patients in this study being seen in an outpatient setting, gait training may not have been the focus of treatment. We believe that our sample is representative of current physical therapy practice. If academic curricula hope to prepare 'generalist PTs,' it will be important to focus on the patient population and the prevalent interventions described in our study.

With such a large proportion of patients with spinal conditions (20%), it is not surprising that body mechanics and postural stabilization (37.7%) were used to such an extent. It is widely recognized these are effective treatments for people with spinal diagnoses.¹³ Furthermore, these interventions can be applied to a variety of conditions, especially in outpatient settings.

Our third purpose was to examine practice trends across regions of the United States. Our response rate was reasonably equal across regions and revealed demographics, physician orders, and interventions provided that were similar across regions. We therefore concluded that there were no dominant geographical trends based on the information presented in this study.

One limitation of this study was sample size. In 2002, the Federation of State Boards of Physical Therapy reported 182,777 licensed PTs in the United States,¹⁴ and the American Physical Therapy Association reported 63,117 members.¹⁰ We sampled 1600 of those 63,117 members (2.5%). The overall response rate was 348 (21.8%), but only 118 (34%) of the PTs who responded worked with older adults. We did not gather specific information about why the other 66% did not work with older adults, but several respondents wrote across their incompleting surveys that they worked in pediatrics or were not currently involved in PT practice. We do not believe that our results represent the percentage of therapists in the United States who actually work with older adults. Rather, we believe it was simple for those who did not work with older adults to state that and return our survey. Those who worked with older adults may have been more likely to discard the survey because of the effort required to participate.

Therapists not familiar with the *Guide*⁹ may also have been less willing to participate because of unfamiliar terminology and concepts.

SUMMARY

Our data suggests that the 'typical' older adult seen for PT was a 76-year-old woman. She was seen in an outpatient clinic for a musculoskeletal related condition likely involving the spine. Her order read 'evaluate and treat' and she received some form of therapeutic exercise as part of her PT program. No trends were evident across regions of the United States.

All therapists need an understanding of the needs and abilities of older adults to allow our profession to meet their increasing demand for PT services. One potential area of concern identified in our study is the apparent predominance of impairment level intervention for some patients rather than an emphasis on improving function or decreasing disability.

Our results may provide academic curricula and those offering continuing education in the geriatric area with a focal point for course content. Focused educational preparation will arm PTs with the skills necessary to effectively and efficiently work with the escalating population of older adults.

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