

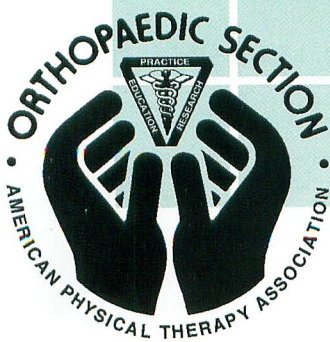
ORTHOPAEDIC

PHYSICAL THERAPY PRACTICE

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VOL. 12, NO. 2

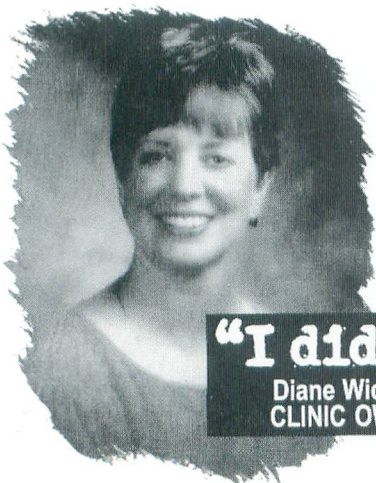
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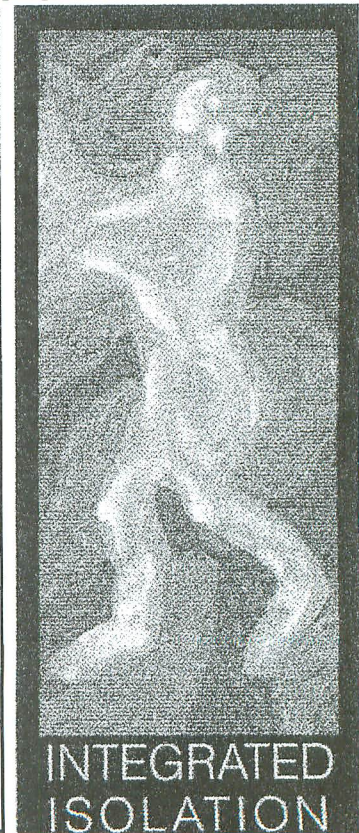
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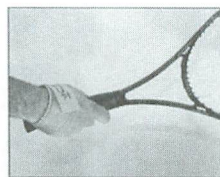


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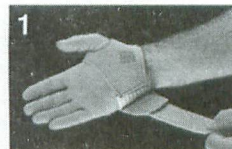
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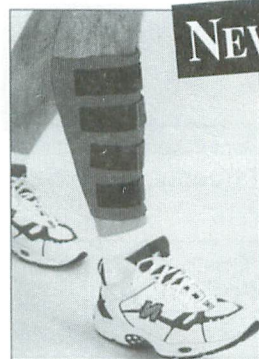


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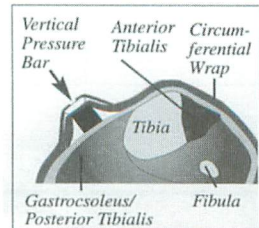
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ORTHOPAEDIC PHYSICAL THERAPY PRACTICE

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The mission of Orthopaedic Section of the American Physical Therapy Association is to be the leading advocate and resource for the practice of orthopaedic physical therapy. The Section will serve its members by fostering high quality patient care and promoting professional growth through:

- Advancement of education and clinical practice,
- Facilitation of quality research, and
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Editor's Message



Niche Practices: Alternative Opportunities

With this edition of OP, we mark our first "Special Topics Issue" under my tenure as Editor. Our intent is to provide you with articles related to a specific topic, in this case, *Niche Practice: Alternative Opportunities*, with less emphasis on the business of the Section.

The common theme of the articles in this issue is that each focuses on an area of practice that differs from the traditional environments of the hospital or typical private clinic; although, none of the opportunities discussed stray too far from what many would consider traditional physical therapy practice. The most striking difference to me is how I *think* about these opportunities, rather than the way physical therapy is actually practiced. I suspect that, if I were able to look into each of the practice environments described, I would not be startled by anything I saw. Some of these arenas have become more traditional over the past decade or so, like occupational health physical therapy, while others are somewhat foreign to many of us, like animal physical therapy.

With this common theme, the topics of this collection of articles include: becoming a consultant to industry, wholistic physical therapy, golf rehabilitation and performance enhancement, and physical therapists as primary care practitioners. In addition, the Special Interest Group Newsletters included address their own special *niche* practices. Also, our recent Outstanding Physical Therapy Student Award winner provides us with his perspective on the challenges we face in physical therapy and the characteristics of the "new" physical therapist. To some of us, his comments will remind us of the days when we first started our physical therapy careers.

Some of the issues really have not changed that much, while others are remarkably different.

Unemployment in physical therapy was virtually unheard of just 5 years ago, or less. Now, we have approximately a 2.9% unemployment rate. This is down from the 3.2% unemployment rate reported in October 1999. While this is still less than the current national unemployment rate (approximately 4.5%), it seems incredibly high for a profession which had, only a couple of years ago, been on the Top Ten list of occupations that were expected to face continued shortages of personnel. Among other potential reasons, the unemployment rate among physical therapy practitioners has forced us to identify alternative opportunities for practice. We have learned (and continue to learn) how to do things differently, while still upholding our ethical standards of care. We also have had to reconsider some of our long-held beliefs about where physical therapists practice. Many of us have been so conditioned to think of ourselves as employees or classic private practitioners, but not typically as consultants. We have the opportunity to become consultants in many areas, not only to industry, but also to third party payers. Among other opportunities, physical therapists are well equipped to become claims reviewers and case managers, two areas in great need of our expertise.

As with many other professionals, we have to retool and rethink ourselves for the 21st century. We must not only strengthen our presence as providers of traditional rehabilitation, but also look for those alternative marketplaces in which we can appropriately expand our services to clients in need, particularly in the area of prevention. The *Guide to*

Physical Therapist Practice asserts our expertise in prevention and wellness and we must continue to pursue opportunities in this area.

Thinking *out of the box* is a popular phrase these days, but that type of thinking needs to be employed for us to continue to thrive in the ever-changing health care environment. We must continue to carve out our niche practices to provide alternative opportunities in this tumultuous environment. We must also begin to think differently about the practice of physical therapy. We have the *Guide* in place, and Parts Three and Four are in progress. If approved by the 2000 House of Delegates in June, we may also have a *new vision* for physical therapy. Although somewhat controversial, the proposed Vision 2020 describes doctors of physical therapy as the providers of physical therapy in the year 2020. That vision will definitely require thinking differently about our profession, given that most practitioners' first professional degree is the bachelor's degree. As Bob Dylan said, "...the times, they are a-changing," but many opportunities abound! Get out your carving knives.



Susan A. Appling, PT, MS, OCS
Editor, OP

We have learned (and continue to learn) how to do things differently, while still upholding our ethical standards of care.

President's Message

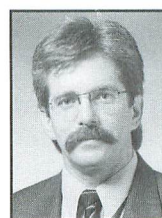
Welcome to the *Orthopaedic Physical Therapy Practice* (OP) special issue 2000! My congratulations go to Susan Appling, Editor of OP who, with assistance from Managing Editor, Sharon Klinski, has put together an issue packed with interesting and relevant information. The topic, *Alternative Medicine*, is certainly a timely one. Alternative therapies have recently garnered a great deal of publicity in newspapers, magazines, peer-reviewed journals, and over the Internet. The public spends billions of dollars annually seeking health care outside the realm of traditional medicine. Once considered *voodoo medicine* by many, some HMOs with the hopes of capturing new clients now aggressively market alternative therapies.

From its inception the Physical Therapy profession has been considered

a part of the established medical community. Despite this, numerous physical therapists have developed thriving private practices built upon the delivery of alternative therapies. Other professions such as Chiropractic have struggled for decades to become a recognized partner of the established medical community. Ironically, the fact the Chiropractic profession is still considered part of the alternative medicine by many may be their ticket into numerous health care institutions which were previously impenetrable. Other groups such as massage therapists and ATCs have made it a priority to join the ranks of licensed practitioners. On the days I leave work worn out by the struggles of preauthorizations, capitation, and volumes of paperwork, I wonder why they are so anxious to join us!

I hope you enjoy this thought-provoking issue with its relevance to clinical practice. In this era of evidence based practice, read the articles with the eye of a good consumer, then consider potential research questions that need to be answered. We look forward to your feedback related to the role of Alternative Medicine and its place within our profession.

See you in Indianapolis!



William G. Boissonnault,
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Golf Rehabilitation and Performance Enhancement: A Unique Program for Physical Therapists

Mark L. Archambault, PT, MS, CSCS

Today physical therapists are faced with the challenge of finding alternative ways to apply their knowledge and expertise in order to survive. Managed care and capitation have made the physical therapist's job more difficult by limiting the number of visits a physical therapist has to rehabilitate his or her patients. The increased paperwork associated with these programs leaves less time for the physical therapist to spend with his or her patients. In addition, these programs have reduced the reimbursement rates for physical therapy services leading to less physical therapy jobs. The physical therapist in private practice, especially the orthopaedic practice setting, also has to compete with *corporate* physical therapy, chiropractors, and personal trainers in a market they once dominated.

One such program that challenges the physical therapist and offers an alternative to the traditional rehabilitation model is BACKtoGOLF. BACKtoGOLF incorporates 2 specific programs that enable the physical therapist to meet the needs of the golfer. The first program is a sports medicine program that focuses on the rehabilitation of the golfer who has sustained an injury or undergone surgery and wants to return to the game of golf. The second program is a performance enhancement program that focuses on the golfer who wants to improve his or her game. This program addresses the biomechanical issues, such as joint restrictions, muscle imbalances, and strength that affect the golfer's ability to swing the golf club in an efficient and consistent manner. The physical therapist is the only health care professional with the background in movement pathology, orthopaedic evaluation, biomechanics, sports medicine rehabilitation, exercise, case management, and the ability to integrate it all into a complete program that meets the challenges offered by the golfer.

There are over 27 million Americans playing golf and it is estimated that another 2 million people take up the sport each year.¹ Golf is a sport that is enjoyed by people of all ages in varying degrees of physical condition. The golf swing is a complex motion that incor-

porates rotation of a 3-link system about a vertical axis and an inclined transverse axis. The golf swing has been described as a motion that is biomechanically opposed to itself.² To play the game of golf effectively and free of injuries requires the golfer to possess certain qualities traditionally reserved for athletes.

The *modern golf swing* was developed to create more power while retaining rotational balance. The modern golf swing is suspected of being a major contributor to injury, particularly to the lumbar spine, suffered by both professional and amateur golfers. This can be attributed to the excessive amount of rotation that occurs in the lumbar spine at the top of the backswing, the subsequent derotation and lateral bending of the lumbar spine during the downswing and impact phases, the amount of hyperextension in the lumbar spine at the end of the follow-through, and the velocity of the segments involved. The golf swing requires full end-range rotation in one direction to full rotation in the opposite direction and takes approximately 1.3 to 1.8 seconds to complete. The modern golf swing, while kinematically efficient, creates excessively high compression, torsion, and shear forces in the lumbar spine. While 80% to 85% of all golfers, both professional and amateur, have sustained injuries directly related to the game of golf, 50% of these injuries have involved the lumbar spine.

Despite the fitness trends among professional golfers, the statistics for amateur golfers in this country are less impressive. While more people are playing the game than ever before, and living longer, the percentage of healthy people playing the game of golf may be in decline.¹ Recent research suggests that for every 3 healthy amateur golfers playing golf, there is one playing with an injury.¹

While simply playing the game of golf may provide relaxation and general health, the increasing use of motorized golf carts, now 56% on public courses,¹ is reducing the amount of exercise for the amateur golfer. The amateur golfer, burdened by a hectic modern lifestyle, typically does little or no physical training to prepare for this highly technical

and physically demanding sport. Repetitive bending over to get in and out of golf carts, teeing the ball up and retrieving the ball from the hole, the stop and start nature of play on overcrowded public golf courses, and the interest in power and distance all adds to the body's stress and the likelihood of injury, particularly later in life. There are possibly a greater percentage of injuries today than in the past.

The safety of the amateur golfer's swing is also an area of concern. The *average* amateur golfer lacks the strength in his or her trunk, the technique, and the flexibility to play golf with good posture and body mechanics.^{2,3} This increases the demand on the core musculature of the body, and makes the amateur golfer more prone to injury. Indeed, studies have suggested that lower back problems contribute to more than 50% of golf injuries in amateur golfers.^{4,7}

Despite all these negatives, technology is allowing people to play golf longer. Carts, for example, allow seniors to play for many more years, particularly in hot climates. Advances in hip and knee-replacement surgery continue to increase the playing lifespan of many amateur and professional golfers, just as supports and braces allow for pain relief and mobility. Motion analysis technology will allow us to make the golfer's swing safer and less stressful on the body.

Amateur golfers are becoming increasingly aware of the importance of proper conditioning and fitness in reducing the risk of injury and improving

The physical therapist is the only health care professional with the background in...the ability to integrate it all into a complete program that meets the challenges offered by the golfer.

Primary Care: Practice Opportunities for the Future

Robert E. DuVall, PT, MMSc, OCS, MTC, PCC, CSCS

Jette and Jette have reported that musculoskeletal impairments account for a large percentage of conditions for which medical care is sought in the United States, and a large portion of the cost associated with this care is related to the disability caused by these impairments.¹ In fact, 32.6% of persons between 25 and 75 years of age were affected by some type of physician-observed musculoskeletal impairment, and 29.7% of the population had self-reported musculoskeletal impairments. Financially, there is more than \$120 billion spent annually in neuromusculoskeletal care in the United States out of \$1 trillion in annual U.S. health care expenditures.² Only cardiovascular disease ranked more costly at a nearby \$137.7 billion.³ There were more than 95 million visits to physicians' offices in 1995 for musculoskeletal conditions, more than any other condition.² Furthermore, *Orthopaedics Today* reports that 25% of the U.S. population suffers from chronic musculoskeletal conditions.

Despite the heightened patient demand for musculoskeletal care, few physical therapy practices in the United States perform significant amounts of direct access physical therapy. In 47 states patients are permitted by law to consult physical therapists without referral from a physician. In 33 states, patients are permitted to receive treatment by a physical therapist without physician referral.⁴ Opinions of physical therapists regarding reasons for the limited practice of direct access have been reported to include restrictive employer policies and lack of insurance reimbursement.^{5,6} Additionally, limited numbers of physical therapists feel sufficiently prepared to practice direct access.⁷ Underwood⁸ reported in 1998 that in spite of inroads toward direct access, physical therapists are, in effect, dependent upon physicians to refer patients with movement dysfunctions, an area in which most physicians have little or no formal education.⁹⁻¹² On November 6, 1998, *PT Bulletin* reported that the PEW Commission found physicians ill prepared to serve the public in the emerging wellness-oriented, ambulatory-based environment.¹³ Furthermore, Jette and Davis reported little or no differ-

ence in the manner by which patients gain access to physical therapy services in states with direct access compared with states in which direct access is not legal.¹⁴

In Australia and New Zealand, autonomy of physical therapy practice was achieved in the 1970s.¹⁵ The driving force behind the Australian and New Zealand physiotherapists was their motivation to treat not only symptoms, but to assume the responsibility for identifying the etiology of their patients' movement dysfunctions. To achieve this goal, these physiotherapists expanded their role by providing direct access to customers, as well as providing each patient with a diagnosis depicting a movement dysfunction. The Australian

Despite the heightened patient demand for musculoskeletal care, few physical therapy practices in the United States perform significant amounts of direct access physical therapy.

and New Zealand therapists learned that, when functioning as an entry point into the health care system, identifying the cause of the problem was expected. The Australian and New Zealand physiotherapists changed the direction of the profession by their early efforts to identify and treat the causes of their patients' problems. From their autonomous evolution have come high levels of expertise, especially in techniques of manual and manipulative therapy.¹⁵

Today, Australian and New Zealand physiotherapists are independently responsible for their own professional evolution and destiny in an open medical marketplace. They have remained the main recipients of traditional medical practitioners' referrals over other allied health practitioners, despite concerns of a decrease in medical referrals given that the physiotherapists compete directly with physicians for patients in

the open medical market.¹⁶ Likewise, the physiotherapists have become publicly and professionally recognized as having a main role in the initiation of preventative care.¹⁶

DEFINITIONS

Direct access is defined as the evaluation and treatment of patients without referral from a physician or other health care practitioner.⁵ *Primary care* is defined as the provision of integrated, accessible health care services by clinicians who are accountable for addressing a large majority of personal health care needs, developing a sustained partnership with patients, and practicing in the context of family and community.¹⁷ The APTA's *Guide to Physical Therapist Practice* (1997) states that physical therapists have a major role in the provision of primary care.¹⁸ Jan Richardson, PT, PhD, OCS, President of the APTA, suggests that physical therapists practicing in primary care environments utilize the title of Primary Clinical Care Practitioner (PCCP). This title connotes the physical therapists' quality of function in the continuum of care and reduces focus on title competition with physicians who are considered Primary Care Physicians (PCP).¹⁹

The APTA has developed a task force to develop a Vision Statement that would provide evolutionary direction to the profession. Presently the Vision Statement describes future physical therapy to be provided by doctors of physical therapy recognized by consumers and other health care professionals as the practitioner of choice and to whom consumers have direct access for the diagnosis, intervention, and prevention of impairments, functional limitations, and disabilities related to movement, function, and health. By 2020, consumers in all states will have direct access to physical therapists, who will hold all privileges and responsibilities of autonomous practice.²⁰ Presently the APTA's Vision Statement does not include primary care language. However, there has been discussion among House of Delegate representatives regarding the need to officially describe future physical therapists as Primary Clinical Care Providers.

Within the APTA, the Orthopaedic

Section has developed a Strategic Plan with a mission to advance clinical practice.²⁰ Goal #4 of the Orthopaedic Section's plan is to "promote knowledge of and provide support for physical therapists as an entry point in the management of musculoskeletal dysfunction."²¹ Greathouse et al reports that Army Physical Therapists have unique and expanded clinical privileges working as primary neuromusculoskeletal screeners.²² In Northern California, Kaiser Permanente has implemented a unique program where physical therapists provide primary care services for patients with musculoskeletal disorders.²³ In *PT Magazine*, Monahan described the practices of 5 physical therapists that practice without formal referral, but also found that few practitioners work exclusively as primary clinical care practitioners. However, Monahan believes that more physical therapists are finding primary care to be a part of their daily practice.²⁴

As early as 1975 Helen Blood described physical therapists as qualified to practice as primary care providers. Dr. Blood recognized that supplemental physical therapy preparation would be needed, especially patient management and instructional technique for physical therapists to practice in the primary care role. Furthermore, Blood recognized that lower medical costs would

Research is needed to understand the knowledge and skills necessary for competent performance.

result from the primary care model whether provided by a single practitioner or team approach.²⁵ Likewise in 1975, James and Stuart, both medical doctors, published their study promoting the use of physical therapists as the primary *screeener* for patients suffering from lower back pain. These physicians concluded that an acceptable quality of care was rendered by physical therapists outside the physicians' traditional prescriptive method.²⁶

PRIMARY CARE PRACTICE ANALYSIS

In an effort to promote the physical therapists' role in Primary Clinical Care, it is imperative to first determine the clinical competencies necessary for satisfactory clinical practice of physical therapists in the primary care setting. Identification of these clinical compe-

tencies is necessary to promote high quality health care and to assist consumers, the health care community, and insurance companies with recognition of the role that the physical therapists perform in primary care. Identifying these competencies may be used as a standard for curriculum design of entry level physical therapy programs, for PCCP postprofessional residency programs, and may also provide the framework for developing a certification process to recognize physical therapists who have achieved clinical competence in the area of primary care.

Outside of primary care physicians and nurse practitioners, different health professionals role in primary care has not been formally identified or defended. Nurse practitioners have begun to establish their role as primary health care providers. Nurse practitioners have provided peer reviewed, outcome based evidence for their primary care role through a recent study published in JAMA, where patients were randomly assigned to either nurse practitioners or physicians. When nurse practitioners had the same authority, responsibilities, productivity, administrative requirements, and patient population as primary care physicians, patients' outcomes were comparable.²⁷

Currently on the United States Tennis Association's Women's Circuits, the certified athletic trainers are referred to as *primary health care providers*.²⁸ Additionally, physiatry residency programs are promoting their role in primary care by promoting residency curricular content to include primary care competencies. The physiatry residency program at the Rehabilitation Institute of Michigan is working on a demonstration project to substantiate the contention that physiatrists make excellent primary care practitioners for the disabled. Their preliminary data suggests that primary care trained physiatrists are better able to control costs, improve patient access to care, and dramatically increase patient satisfaction.²⁹

Orthopaedic surgeons are considering an expansion of their surgical domain to include primary care as well. *Orthopaedics Today*, Chief Medical Editor John McGinty, MD, proposed that orthopaedic surgeons should evolve to become recognized as musculoskeletal primary care physicians. Dr. McGinty

recognizes that nonsurgical and minimally invasive techniques are becoming increasingly popular for the treatment of musculoskeletal disorders, and that without some emphasis on nonsurgical orthopaedics, the orthopaedic surgeon does not have a bright future. Due to managed care's evolution, primary care physicians, internists, and pediatricians have had increasing control of surgical-specialty referral.³⁰

In 1995 the Royal College of Surgeons published a paper that revealed orthopaedic outpatients with conditions that do not respond to surgical intervention are best managed by physiotherapists. In addition to their conventional training, physiotherapists were trained in orthotics and steroid injection. These physiotherapists were compared with staff grade orthopaedic surgeons. Outcomes were measured and assessed, and the study concluded that physiotherapists were as effective as staff grade surgeons in managing nonsurgical orthopaedic outpatients.³¹

At present, there have been no formal outcome-based studies regarding the emerging role of physical therapists as primary care providers. Nor has there been any analysis of physical therapy primary clinical care, and no detailed information about the unique tasks and competencies that physical therapists must perform in their practice as a PCCP. Research is needed to understand the knowledge and skills necessary for competent performance. Loma Linda University's doctoral candidate, Edsen Donato, PT, MPT, OCS, and I are collaboratively undertaking a non-experimental descriptive research study to determine the clinical knowledge, skills, and abilities of physical therapy practitioners who are practicing in the primary care setting. At the present time, a group of primary care subject matter experts have formed a National Advisory Committee (NAC). This NAC is formulating a research survey that will be sent to currently practicing PCCPs. The survey will serve as a practice analysis designed to identify and distinguish the unique content and process areas essential to primary clinical care practice.

Preliminary NAC survey data suggests that there are additional competencies that the PCCP must have to function effectively outside of the American Board of Physical Therapy Specialties' Description of Advanced Clinical Practice. Some of those additional primary clinical care competencies appear to be broader in scope, including competen-

cies within the neurological, cardiopulmonary, and integumentary practice areas. The PCCP's function as a first-contact *Diagnostician* and more comprehensive content knowledge associated with diagnostic clinical science issues of test selectivity/sensitivity as related to differential diagnostic processes appear to be an area for further elaboration. Likewise, there are additional Administrative Domain/Patient Management competencies with regard to autonomous and collaborative case management skills and effective triage protocol.

Affective domain competencies also appear to be further expounded within the primary care environment, just as the first-contact, primary care physician needs extra attentive skill with interpersonal communication processes as compared to those necessary for secondary or tertiary specialists. That is not to say that specialists do not need excellent affective domain competencies. Along those lines, the PCCP needs formally expanded, defined, and explicit competencies with regards to patient education process skills, community education process skills, health/wellness screening process skills, and health promotion content/process skills. In essence, the PCCP appears to be a broader-scoped generalist, who also possesses core-necessary orthopaedic competencies. It also appears that the PCCP does not need to be an Orthopaedic Clinical Specialist. In fact, multiple NAC responses revealed that the PCCP's competencies need to be entry level, as in medical practice where these global competencies are requisite to residency specialization.

Insights gained from studying physical therapists practicing in primary care environments should define the practice of physical therapy primary clinical care. The end result of this study may provide evidence for a unique core body of knowledge required by clinicians practicing with skills in primary care physical therapy and distinguish their knowledge and responsibilities from general physical therapists and specialists (OCS, NCS, etc.). This research should direct the curricula to bridge the knowledge gap that may have kept physical therapists from evolving into primary clinical care practitioners. Ultimately, it may affect existing specialization examinations as a cross-disciplinary primary care process-core for each ABPTS specialty area.

Lastly, this research should influence political action and policy making pro-

cesses regarding patient access and reimbursement issues. Identifying these competencies may be used as a standard for curriculum design in PCCP residency programs and may also provide the framework for developing a certification process to recognize physical therapists who have achieved advanced clinical competence in the area of primary care.³²

If you are interested in primary clinical care, a petition has been initiated to form a professional special interest group (SIG) for Primary Clinical Care within the Orthopaedic Section. The goal of this SIG is to advance the clinical knowledge and practice of Physical Therapy Primary Clinical Care. The Mission of the Physical Therapy Primary Clinical Care SIG is: (1) promote knowledge of and provide support for physi-

PETITION FOR THE DEVELOPMENT OF PHYSICAL THERAPY PRIMARY CLINICAL CARE SIG
Orthopaedic Section APTA

Name: _____

Address: _____

Phone: _____

Fax: _____

Email: _____

APTA membership number: _____

Signature: _____

cal therapists as an entry point in the management of musculoskeletal impairments; (2) provide communication among physical therapists interested in primary care; (3) provide continuing education related to Physical Therapy Primary Clinical Care; (4) analyze, define, and validate competencies for the practice of Physical Therapy Primary Clinical Care; (5) foster the development of postprofessional APTA credentialed Primary Clinical Care residency sites; (6) influence the political action and policy making process regarding the practice of Physical Therapy Primary Clinical Care.

To become a Level 1 SIG within the Orthopaedic Section, 200 signatures of Section members are required. To support the development of this proposed SIG, Section members can sign the petition. Orthopaedic Section members are automatically eligible to petition for

this SIG by submitting their signature on the following application. Once established, members will receive Primary Clinical Care SIG publications and notices of educational opportunities.

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(Continued on page 22)

Becoming a Consultant to Industry

Lauren A. Hebert, PT, OCS

One arena of critically unmet need for our orthopaedic skills and services is in the workplace. Yet, the workplace is largely devoid of our services. It is also an arena that is willing to pay us for the true value of our services, without the hassles and theft-like discounts inherent in what has become typical managed care fee structures.

Most of us sit in the clinic awaiting patients referred to us by the physician or case manager. Many of these patients are workers who developed musculoskeletal dysfunctions as a result of work stresses superimposed upon degenerative processes. They put up with pain for a period, perhaps a long period, due to workplace policy pressures not to report injuries. They eventually got to see a physician who tried his or her best to abate symptoms with medications and rest as the worker *regenerated* an acceptable degree of work tolerance. That failed after several months, so the worker is then sent to the physical therapist for a salvage attempt. No wonder many say physical therapy does not work.

They have relegated us (or we have relegated ourselves) to futile treatments for musculoskeletal conditions at the end stage of the disease process. The point is, in the traditional model, we are too little too late. We must redefine ourselves and our roles for the sake of the worker, the workplace, as well as for our own profession. We need to be in the workplace acting as the front line for injury prevention, early onset pain intervention, immediate injury evaluation, and aggressive primary treatment.

We should be an integral part of the workplace seeing to it injuries do not occur and, if they do, seeing to it aggressive physical therapy is provided as early as possible and work ability is preserved. We should be the ones referring patients to physicians as we see need for their intervention on issues we cannot manage ourselves. Sounds radical? Maybe. But it can be done; it has been done, even in states where direct access is not yet available.

The orthopedic physical therapist is a very valuable resource for the workplace; actually, a great source of profit enhancement. Musculoskeletal disorders represent the majority of Worker

Compensation dollars expended nationwide representing a quantity of money the size of our entire foreign trade deficit. That represents an enormous cost-savings opportunity for any savvy corporate manager with whom you could be negotiating for the services described here.

Our group of physical therapists, IMPACC, have provided Neck-Arm CTD School and Back School services to over 450 workplaces. Those companies willing to share injury data with us demonstrate an average 72% reduction in lost work days to these disorders in the 12 to 24 month period following implementation of our program. Client companies have realized a 10-to-1 return on investment in one year. There is little a company can invest in that yields a similar return. And that is but one service among many you may offer to the workplace.

We must redefine ourselves and our roles for the sake of the worker, the workplace, as well as for our own profession.

Physical therapists and occupational therapists are commonplace in the European workplace, much like occupational health nurses are common in the U.S. workplace. But not so here. When it comes to ergonomics, most US workplaces hire ergonomics engineers, trained to design work that minimizes physical demands on the working body. But that has had limited success. Most musculoskeletal work disorders are not caused by faulty job design but, rather, by faulty worker behaviors (posture, flexibility, body mechanics habits, fitness for work deficits). These are not amenable to correction by giving the worker an ergonomically correct job. We physical therapists are skilled at identifying faulty work design, but we are particularly qualified to identify and correct these worker behavior risks not addressed by ergonomists of a strictly en-

gineering background. Our specialty is to teach and motivate people to modify their at-risk work behaviors. That is vital to the health of the worker and the workplace. We are an underutilized resource for musculoskeletal risk identification and correction.

Some physical therapists have given up their high-overhead clinics in favor of going to various workplaces to provide a list of high-reimbursement services that reduce injuries and costs. What may be your product line as a prevention consultant?

1. WORK RISK ANALYSIS:

An on-site expert evaluation of each job category and company policies to identify risk factors for injuries, claims, and costs. This serves as the basis for proposing an action plan to correct the risks. This may be offered as a stand-alone service for companies trying to understand their problems before they decide what to do about them. It is also an essential prerequisite to prepare a customized Neck-Arm CTD School or Back School. You use your evaluation skills observing workers doing work to identify postures, motions, and loading that may predispose musculoskeletal disorders.

2. NECK-ARM CTD SCHOOL:

This is a 2-stage training program: a 4-hour seminar to managers and supervisors on everything that pertains to CTD injuries, claims and costs based on the findings of the Work Risk Analysis. We address medical, pathology, ergonomics, policy, and workplace attitude issues that create or worsen the problems. This presents a full scope of prevention tactics encompassing ergonomic modifications, task rotation, posture issues, stretching programs, and injury management policies. The 2-hour employee training teaches employees causes and solutions to work fatigue and discomfort, teaching self-care of the working body; fatigue-avoidance; personal ergonomics, stretching, and task rotation: the Industrial Athlete program.

3. BACK SCHOOL:

Ours is not the traditional Back School approach. We teach managers and workers their respective responsi-

bilities for reducing back injury and its costs. We teach all party's spinal mechanics, injury pathomechanics, spine ergonomics, personal back care, stretching techniques, proper lifting. This too is a 4-hour manager-supervisor program that addresses sensitive political issues such as employee relations, return to work policies, restricted duty. It is followed by a 2-hour employee motivation Back School.

4. ERGO-TEAM TRAINING:

This is an advanced training program for the company's select ergonomics team, teaching them how to analyze their own jobs and make ergonomic corrections. This is done after Back School and CTD School to maximize long-term success.

We use the IMPACC program, which we authored from years of work at hundreds of workplaces. There are several packaged programs available to therapists seeking to provide prevention services to industry. The advantage of a packaged program is immediate service capability, pre-existing track record, and a structured program protocol to follow, saving thousands of hours of developing one's own homegrown program.

Beyond these prevention services, what treatment services may be uniquely marketable to industry?

1. PREFERRED PT PROVIDER ARRANGEMENT

One critical service is to establish a preferred PT provider agreement with individual workplaces whereby injured workers are sent directly to you for initial evaluation and recommendations for care. This works easily in direct access states. You would, otherwise, need to establish a referral relationship with a key physician for legal referral coverage. You see the worker first to determine how best to proceed for PT care, physician referral, and restricted duty. You need to market this concept carefully to the physician community so they will see you as a referral source rather than as competition for patients.

This mechanism works especially well for workers and employers when utilized as an early intervention tool. Workers are encouraged to come forward with pain problems early so they can be managed successfully with minimal care and no lost time claim. Everyone wins. We market to industry that this process gives our clinic an outcome status of averaging less than 5 visits per referral.

2. ON-SITE THERAPY CLINIC:

You negotiate placing a part-time clinic at the workplace where workers may be evaluated and treatment provided. This is often provided in the same area as the occupational health nurse office, often in cooperation with a physician also providing services to the company. You provide worker evaluation and treatment as described above, plus devote an hour or two weekly to evaluating problem jobs, monitoring restricted duty assignments and other problem-solving services.

One valuable nuance to this is the one-visit pain problem intervention. This is interaction with individual workers to intervene on pain complaints amenable to correction with single-visit advice. This event is NOT a Worker Compensation reportable claim if no medical diagnosis is made, no treatment follow-up is provided, and no restricted duty is imposed. You are paid directly by the company without making a Worker Compensation claim. It is a "first aid visit" not legally defined as a reportable injury. So long as you are honest with this process, everyone again wins. Companies see this as a great cost saving service.

3. NEW HIRES TRAINING AND SCREENING:

We describe an approach quite different from typical preplacement screening processes. Preplacement screening presents itself with certain legal risks you may not want to defend in court. The worker who simply perceives he or she did not get a desired job assignment because of your screening is at risk of naming you in a lawsuit. We offer a different approach that avoids that risk.

The employee is screened for key flexibility, strength, posture, and body mechanics deficits. The worker is then educated on how to correct these deficits for their own protection. No findings of these deficits are made to the employer, to avoid litigation risks. The employer is simply hiring you to find deficits and educate individual workers how to correct them. The smart employer does not want these findings to sway hiring decisions that could put them in court.

4. RESTRICTED DUTY PROGRAMS:

The physical therapist is often the best resource for design and supervision of a company's return-to-work restricted-duty program. Too many employers

impose a 100% policy whereby the injured worker may not return to the workplace until they are 100% ready for unrestricted duty. Such a policy can cost a company enormous amounts of Worker Compensation dollars. An effective restricted duty program is often a hassle to develop and administer but can save a company lots of money.

The consulting therapist catalogs jobs that may be appropriate for placement for workers recovering from certain problems. The recovering worker is evaluated for appropriate placement. The worker is "coached" on proper work methods to maximize safe work tolerance. The worker is progressed expeditiously and safely from week to week back toward their regular job.

This service can be a major political challenge that will have to address attitude and policy issues among managers, supervisors, coworkers, and even the medical community. Building this political and policy framework is part of the consulting therapist's job.

6. FCEs:

Functional Capacity Evaluation (FCE) is a valuable service to offer. There are several commercially produced FCE protocols on the market. There are 2 purposes of the FCE. The altruistic purpose is to determine the physical work capacity of the recovering injured worker so as to allow the safest and most effective return to work strategy. A second, more unspoken purpose is to assess for validity versus invalidity of the physical complaints. Some FCEs have strong components of validity tests that may validate or invalidate the worker's complaint for proper case resolution.

Providing FCE services can be a busy activity and considerable income source for a clinic. Therapists may even arrange with other clinics to be their referral site for FCEs, saving the other clinics the often-formidable investment of time, space, and resources. Some FCE's systems also have components that may be utilized as pre-placement screening to market to client workplaces.

OUR GREATEST WEAKNESS

Why?? If prevention programs can demonstrate such dramatic reductions in work injuries and costs, and industry is willing to pay good consulting fees, and there exists a vast pool of potential clients needing these services... why are physical therapists not lining up to get into industry?

Two reasons: (1) physical therapists

often don't dare to leave the clinic to go to the workplace where they are not in charge. We are accustomed to being respected; even worshipped by patients who seek us out for care. The workplace setting does not provide that level of worship or respect. We are, instead, viewed with suspicion or even disdain as someone who may even make things worse. We are often viewed by industry, rightly so, as naive and out of our element. And (2) we often don't know how to market and present ourselves as consultants to industry. Consultants have to market their way into industry. Other industrial consultants typically present themselves with utmost professionalism and marketing acumen. We physical therapists often find ourselves *out of our league* in comparison with these other types of consultants more accustomed to marketing to often-resistive industry managers.

It is with this aspect of the prevention consulting business physical therapists need the most help: confidence and marketing professionalism. Physical therapists must realize we are the most competent professionals in society for managing musculoskeletal disorders of the low back and upper quarter. The problem is confidence in adapting our orthopedics base from the clinic to the workplace to teach industry how to identify and reduce the causes of injuries and their costs.

Marketing prevention consulting to industry is very challenging. The managers to whom we market have a very different view of the problem. We seek to prevent injuries; they seek to reduce costs. Many managers assume most of these injury claims are faked, so why hire you to come to the workplace and possibly make the situation worse? We must learn congruence with the client, as well as empathize with his/her perception of his/her situation.

The aspiring industrial consultant must be adequately prepared to venture into the workplace. There are tools and special training available. Prevention programs have been professionally packaged. A variety of seminars on related topics are available from many sources. Our Orthopaedic Section is building a Special Interest Group on Occupational Health. Web sites are available offering information and examples to consider. Ours is www.smartcarept.com and illustrates several tools such as Ergonomics Work Risk Analysis protocol, industry client outcomes, and a large collection of related literature abstracts on this topic. There are many other web sites to consider.

Web sites to explore include:
www.smartcarept.com
www.impaccusa.com
www.ergoweb.com
www.carrpt.com/ergo.html
www.oshe.gov

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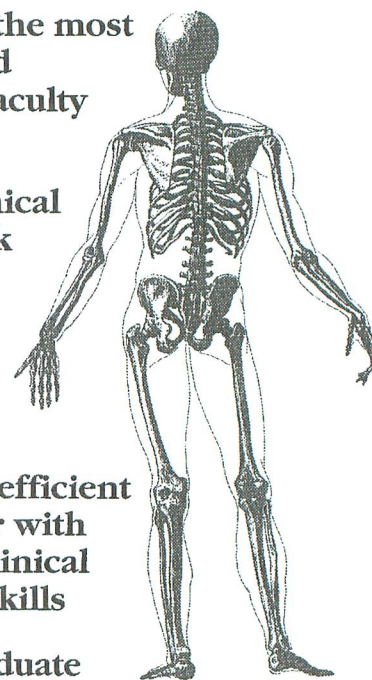
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Putting the Movement System Back in the Patient: An Example of Wholistic Physical Therapy

Matthew J. Taylor, MPT, RYT

The physical therapy profession has done much in the past 3 decades to assert itself as the leader in the study of the human movement system. This drive for basic science and evidence-based outcomes is nowhere more evident than within the Orthopaedic Section of the APTA. Based on the mechanical reductionist paradigm of identifying and isolating variables, this process has provided and will continue to reveal critical scientific information and empirical relationships. The climate in health care today demands more of this information if the profession strives to clarify its identity and justify reimbursement.

While necessary, this somewhat myopic view of the *parts* of the patient has caused us to miss opportunities for facilitating healing of the whole person. The emerging quantum mechanical theory emphasizes that no event or process can occur in isolation, including human movement. In the quest for details, this concept may be overlooked and with it the rich potential for solutions to current practice challenges. These challenges include but are not limited to:

- restricted clinical visits,
- discounted or denied reimbursement,
- increased productivity demands on the clinician,
- dependence on third party payment,
- perceived decrease in/of market opportunities,
- declining employee morale or loss of spirit,
- cash flow and capital budget issues,
- perceived theft/practice infringement, and
- increased consumer expectations.

Each of these challenges represent real obstacles or barriers to practice within the former delivery paradigms. This article will propose a specific additional program model that can be used as a template for an unlimited range of orthopedic consumer needs by addressing the whole human: body, mind, and spirit.

WHOLISTIC PHYSICAL THERAPY

The Body

By definition, the profession is most

comfortable addressing the physical or body aspect of health care. These are the tangible, more easily measured and documented elements of treatment. The description of normal and pathological movement utilizes the analytical terms of degrees, pounds, rate, distance, etc. to both teach and treat patients. Whether transmitted verbally or through manual interventions, this dimension of care will continue to be our primary medium. Yet, clinically it seems that frequently, despite following the accepted critical pathways and practice patterns, the results are less than optimal for both the therapist and patient. Why does this occur and what blocks us from the expected outcome?

The trap of falling into the reductionist paradigm is just that, it is a paradigm or model of reality. The model artificially creates boundaries for organization, understanding, and teaching. Its limits are exceeded when psychological or spiritual issues impact the physical manifestation without some objective or classic mechanical component. Clutching the paradigm leaves the therapist to conclude there is a deficiency in the diagnosis, treatment, or patient, when in fact it could be the paradigm. The field of psychoneuroimmunology (PNI) is chipping away at these boundaries and offers both exciting and possibly frightening implications for physical therapy. From sub-par performance of a high caliber athlete to why a patient cannot perform a simple functional movement despite possessing the component range of motion and strength, this new paradigm demonstrates expectant promise of offering explanations.

It also poses the dilemma of who from the old parts paradigm is best

sued to embrace it and harness its healing potential? Within this gray area lies both the risk of missing a key stake in management of human movement and an opportunity to make dramatic breakthroughs. A closer look into these softer, less physical components of human experience follows.

The Mind

The mind is the less tangible, though readily accepted reality of human thoughts, emotions, and cognitive processing. Clinicians readily accept the concept of psychological influences on movement performance in sports and performing arts. The challenge is, having *acknowledged this influence*, what can the clinician do to affect the mind without a degree or license from the mental health profession? This is where attention and evidence gathering must focus to harness the healing potential of the quantum paradigm.

In the meantime, clinical practice can begin incorporating principles of mind-body science to influence performance. As a gross generalization, most psychological influences can be seen as either eliciting the stress or relaxation response, and their familiar concomitant physiological effects. This autonomic nervous system (ANS) shift directly impacts movement potential through the subcortical motor, balance, and postural centers.

Whether the patient presents with the psychological signs of anxiety, fear, anger, depression, etc., they all tend to promote either an acute or chronic stress response. This lack of homeostasis within the ANS degrades the capacity for subcortical sensorimotor integration and optimal movement.

...this process has provided and will continue to reveal critical scientific information and empirical relationships...

Table 1. Physical Therapy Assessment and Treatment Goals

| <u>Stress Assessment</u> | <u>Treatment Goal/ Relaxation Response</u> |
|--------------------------|--|
| Increased Muscle Tone | Normalized Tone |
| Cardiovascular Stress | Cardiovascular Ease |
| Anxiety/Panic | Calm/Relaxed |
| Elevated Blood Pressure | Normalized Blood Pressure |
| Fear/Pessimistic | Confidence/Optimistic |
| Dependent/Passive | Independent/Active |
| Distracted | Focused |
| Angry | Tolerant |
| Depressed | Balanced Affect |
| Guarded, Splinting | Fluid, Graceful |
| Off Balance | Balanced |
| Low Energy | High Energy |
| Thoracic/Chest Breathing | Diaphragmatic Breathing |

Table 1 illustrates how the concept of documenting and goal directing towards the resolution of the stress response might not be as foreign as it initially appears.

The question becomes, how can we as physical therapists legally and ethically take advantage of this information. Herein lies the beauty of the wholistic approach, and that is simplicity.

So much of healing occurs beyond our understanding, but as Benson and others have pointed out, the inducement of the relaxation response makes available *remembered wellness*, the placebo effect, and optimal immune function.¹ It is important to note the difference between healing and curing. For so many orthopaedic patients, curing or returning to prior physical function is not possible nor realistic, but to be able to integrate their new levels of function into a balanced, positive lifestyle defines healing and is within the potential of every patient.

One of the first physiological responses produced under stress is an increase in respiration rate and a decrease in tidal volume, accompanied by a shift from a diaphragmatic to an upper chest breathing pattern. The unique dual controls of breathing by both the voluntary and autonomic nervous systems provide clinicians direct access to ANS function. While seemingly too simple, the instruction of orthopaedic patients in diaphragmatic breathing with the intention of eliciting the treatment goals of Table 1 is not only supported by research, but a simple, cost effective intervention. Outcome surveys and the informal *grocery store follow-up visits* have repeatedly revealed the instruction in breathing to have been the single most important tool the patient took away with

them. Not so surprising, as we turn our attention to the most ethereal component we humans share, that of the spirit. All of the great spiritual traditions make use of breath (breathing) and the images of breath to achieve spiritual development.

The Spirit

By definition, the word spirit refers to that not physical or mental, yet an experience shared by all humans. As the root of the word spiritual, it can create varied responses in clinicians from bewilderment and eye rolling, indifference, to nails on a chalkboard emotional responses or other historical baggage. Because spirit speaks to all of us uniquely, its important to offer a definition for understanding. It is not ones religion or divine preference, but rather that intangible energetic essence that has sparked our DNA since conception and will continue to do so until we take our last breath (expire or ex-spirit). It can be glimpsed in the answers to the questions of: (1) who am I? (2) what am I? and (3) what shall I do or be?

Our very language offers insights into how as physical therapists we might assist spiritual healing without ordination or infringing on patient religious beliefs. Expressions such as: "the team was inspired;" "the morale of the department was dispirited;" "the patient in 402 has no spark;" or "I think I'm burned out;" bring home the importance of spirit in the clinic. Or as Ludwig Wittgenstein said, "posture is the mirror of the soul." Have you had the experience of *sensing* within the first moments with a new patient either "this is going to be fun" or "why me" without anything more than a cursory glance and exchange of pleasantries? What is

that, if not a spiritual assessment, and has it ever affected your clinical decision-making?

If it has not, it should and if it has, it should be directed toward facilitating healing rather than avoidance or expediting contact. For it is at this level that failure to recognize or address these matters of spirit can produce less than favorable outcomes. The good news is, in many cases, that significant impact can be provided with relatively simple techniques. This is in no way inferring clinical management will be easy or uncomplicated, but only that spirit can and should be addressed by the physical therapist. The tools available in the clinic are:

1. breathing instruction (creates the spirit of peace, calm, support, hope and comfort in the relaxation response),
2. body language/appropriate physical contact,
3. environmental surroundings (noise, color, music, temperature, art...),
4. eye contact and clinician's breathing pattern,
5. didactic education/offering new paradigms,
6. humor, listening, and prayer (silent or as appropriate),
7. supportive/motivational literature, biographies, posters, past-patient victory wall, etc.
8. and last, but not least, through the patient's physical body!

How we position or ask the patient to position their body has a direct and powerful effect on their spirit. To experience this personally try this: put the magazine down, fold your hands behind your back, look down at your lap and slump forward slightly. Now sense your spirit as you ask the imaginary third party reimbursor in front of you for payment of services. Then sit up tall, head high, one foot in front of the other, eyes focused ahead, and bright with your dominant hand pointing directly at the imaginary reimbursor. And ask again. Any difference?

It is beyond the scope of this article to go into this fascinating body-spirit connection. Further study can be made through examining the archetypes of the hundreds of yoga poses or asanas, many of which are the basis for *therapeutic exercises*. Each has an intended impact not only physically, but on the mind and spirit as well. Through knowledgeable selection you can create criti-

cal spiritual shifts for your hard charging type As to the withdrawn, depressed client by how you direct their movement and body position.

What follows is a description of new programming that utilizes all of the above and more to create a new paradigm of healing in physical therapy. This new paradigm is not intended to replace the old, but to supplement and compliment historic practice challenges.

The Titanium Club

This outpatient group program is designed for patients postdischarge from traditional PT after lower extremity arthroplasty. Elements can be used within prescriptive interventions and the group work can be coded as group therapeutic exercise. Review of the *Guide to Physical Therapist Practice*, p1329, History and Systems Review states data may include what amounts to a spirit assessment in Table 2.

This program is a work in progress, and is intended to provide interventions not presently listed in the *Guide* for these factors. Table 3 lists the mission and objectives of the program. These are achieved by utilizing all of the listed Specific Direct Interventions in the *Guide* except the use of aquatics and machines. Additional education material, awareness exercises, group sharing, and guided imagery create opportunities for healing on the non-physical levels.

The group meets for 8, 90-minute classes over 4 to 8 weeks. The equipment includes a mat, chair, and pillows or bolsters in a warm room with a firm floor. Each class follows a 9-step template taught by Integrative Yoga Therapy.

The Template:

- I. Intake or Check-In (5-10 min.)
 - Answer questions.
 - Inquire how things are going and learn of any integrations from previous lessons
 - Key: Develop a rapport with the clients.
- II. Body Awareness (5-10 min.)
 - "Can't heal what you don't feel."
 - There are multiple gaps in awareness at various levels of body, mind, and spirit.
 - Key: Allow the client to be able to read or understand his/her needs or imbalances at any of the 3 levels.
- III. Sharing/Education: (5 min.)
 - Avoid temptation for analysis of the clients' reports.

Table 2. History and Systems Review

| |
|---|
| <p>Social History</p> <ul style="list-style-type: none"> • Cultural beliefs and behaviors. • Social interactions, social activities, and support systems. <p>History of Current Condition</p> <ul style="list-style-type: none"> • Patient/client perception of the emotional response to the current clinical situation. <p>Health Status:</p> <ul style="list-style-type: none"> • Physical function (eg, mobility, sleep patterns, energy, fatigue). • Psychological function (eg, memory, reasoning, ability, anxiety, depression, morale). • Role function (worker, spouse, grandparent). • Social Function (eg, social interaction, activity and support). |
|---|

Table 3. Titanium Club Mission & Objectives

| |
|--|
| <p>Mission: Provide an affordable, comprehensive <i>healing</i> environment in a group setting for individuals who have a lower extremity joint prosthesis(es). The method will include education, group sharing, stress management, gentle yoga, and somatic exercise (slow, thoughtful primary and accessory movements to allow the psychomotor system to evaluate and choose from a greater variety of motor options beyond the historical and compensatory patterns), and gait training.</p> <p>Objectives: Participants will:</p> <ol style="list-style-type: none"> 1. Increase proprioceptive awareness of their lower extremities. 2. Learn to utilize their breath for stress and pain control. 3. Enhance their awareness of their gait and the relationship between their upper body/trunk and lower extremity function. 4. Increase both static and dynamic single leg balance. 5. Increase lower extremity flexibility and strength. 6. Report increased function in ADLs (sit-stand, rolling, static comfort, etc.). 7. Gain home program of foundational Yoga and somatic exercise for continued use. 8. Through education and group sharing, gain increased understanding, acceptance, and empowerment to facilitate healing at the emotional, psychological, and spiritual levels. 9. Provide measurable change through pre- and postsurvey assessments. |
|--|

- Share on various levels and mediums (body charts, drawing, journaling)
 - A process of awareness on both sides
 - Didactic education can lead to new awareness
 - Key: Create an environment to allow awareness, which removes tensions and obstructions to wholeness and integration.
- IV. Breathing (5-10 min.)
 - Flowing movement in synchrony with the breath is a powerful tool for healing and optimal sensorimotor integration.
 - V. Postures (Variable)
 - Asanas (poses) range from very heating to very cooling
 - Each has its own archetypal impact on body, mind & spirit.
 - Purify the physical body and create optimal physiological function.
 - Bring awareness of the emotional

blocks and unconscious belief patterns.

- Key: Create an opening to see, experience and deepen who they are.

VI. Guided Imagery/Relaxation (10-25 min.)

- Previous activities create openings on the body & mind levels.
- Specific to the theme of the session or area of concern.
- Can focus on physiology, movement or psychospiritual imagery.
- Key: Create a highly receptive state for healing and connection.

VII. Meditation (1-10 min.)

- Often have created a meditative state or deep relaxation response without striving.
- Can use breath, mantra, or image.
- Key: Allow the person to rest in the natural state of being.

VIII. Sharing (5 min.) Optional

- Open ended, nonjudgmental, without comment.
- Be present and listen well.
- Key: Create a space for spontaneous expression of insights or experiences.

IX. Affirmation

- Invite them to look inside for any counsel or wisdom from their inner guide.
- Connects them with their own inner essence and strengthens their ability to hear direct guidance based on their spirituality, not the therapist's or a "new" spiritual practice.
- Key: Create a commitment to act on this guidance (compliance!).

Weekly Summaries

A summary of each class with the theme and some techniques utilized outside the typical PT interventions is listed below.

Titanium Club Class Summaries

Week 1 Theme: What is health?

1. Intake or Check-in: Briefly explain format of the class today and program at large. Introduce yoga and somatics,³ contrasting with traditional PT.
2. Body Awareness Scan: Standing body scan bringing attention to each area of the body; briefly explaining the three As: awareness, acceptance, and adaptation.

3. Sharing/ Education: Ask for feedback; cover highlights of body awareness to include: health=whole; yoga increases awareness and that we can't heal what we don't feel. Also what yoga is and isn't.
4. Pranayama: Intro and diaphragmatic breathing.
5. Postures: Series of modified yoga poses and gentle somatic lessons.
6. Guided Imagery/Relaxation: Breath focus, segmental contract-relax, % relax.
7. Meditation: Walking with breath.
8. Affirmation: To begin the journey of self-awareness and wholeness.

Week 2 Theme: Body Awareness... Who's there?

1. Intake or Check-in: Q&A: review AAA.
2. Body Awareness Scan: Segmental "healthy" standing body scan.
3. Sharing/ Education: Discuss body awareness; loss of awareness leads to fear; cultural history of body-mind separation; boundaries=conflicts; and numbing-coping mechanism.
4. Pranayama: Instruct in standing 3-part Yogic breath.
5. Postures: Series of modified yoga poses and gentle somatic lessons.
6. Guided Imagery/Relaxation: % relax body part; find healthy/open area; carry that sensation to each part.
7. Meditation: side lying.
8. Affirmation: awareness without judgment until the next class.

Week 3 Theme: The breath... Inspired or Expired?

1. Intake or Check-in: Discuss any new awarenesses since beginning class.
2. Body Awareness Scan: Supine whole body breath awareness.
3. Sharing/Education: Introduce prana, but focus with energy /electricity/life force; When breath is blocked related to MI or CVA...talk about Ornish's work and importance of breath to all areas, especially inflammation and prostheses.
4. Pranayama: Review 3 part; observe changes with nose vs. mouth and by varying rate.
5. Postures: Series of modified yoga poses and gentle somatic lessons developing greater synchrony with breath.
6. Guided Imagery/Relaxation: Visual image of life sustaining oxygen delivered to various areas of the body.
7. Meditation: Walking in unison with

the breath.

8. Affirmation: Breathe to areas of tightness and pain.

Week 4 Theme: Who me?

... STRESSED?

1. Intake or Check-in: Q&A, connect the breath to stress with examples.
2. Body Awareness Scan: Standing awareness scan for areas of tension (a.k.a. stress) and body map drawings.
3. Sharing/Education: Teach yogic view of stress, introducing concepts of spectrums and finding balance; also the relaxation response.
4. Pranayama: Balanced breath, teach Nadi Sodhana, with and without mudra and Chandra Bhedana as a cooling example.
5. Postures: Series of modified yoga poses and gentle somatic lessons with no shortening or breaking the breath.
6. Guided Imagery/Relaxation: Releasing into relaxation response by surrendering fears, judgments, agendas, etc.
7. Meditation: The balance of inhalation and exhalation.
8. Affirmation: Breathe with stress situations.

Week 5 Theme: Walk this way...

1. Intake or Check-in: Summarize first half accomplishments and info; intro to walking as locomotion.
2. Body Awareness Scan: Segmental walking awareness with varied speeds and breaths.
3. Sharing/ Education: Review components of gait, talk about center of gravity and base of support, the need to reprogram old or faulty strategies.
4. Pranayama: Walking with breath, finding a rhythm. Varying stride length and how breath is effected. Then grasp or massage the Earth with the foot to soften heel strike and activate leg muscles.
5. Postures: Series of modified yoga poses and gentle somatic lessons for gait.
6. Guided Imagery/Relaxation: Yoga Nidra with images of great cats, giraffes, children walking/ running at the beach; recall vivid image from their childhood that they could remember moving with complete freedom and abandon (remembered wellness¹).
7. Meditation: Walking meditation.
8. Affirmation: Walking is a freedom, full of ease and fluid in nature.

Week 6 Theme: Me, emotional???

1. Intake or Check-in: Share a personal experience with an extreme emotion and how it impacted the various aspects of your health.
2. Body Awareness Scan: Emotional awareness scan.
3. Sharing/Education: History of emotions and our cultures' approach; form of prana, effects of repression; exists somewhere physically and because it is, it can be changed after acknowledgement.
4. Pranayama: Effect of breathing pattern on emotions.
5. Postures: Postures with the various emotional qualities.
6. Guided Imagery/Relaxation: Emotional body imagery, linked to Chakra imagery, but very westernized.
7. Meditation: Observe your emotional self without judgment.
8. Affirmation: What will I do with my insight?

Week 7 Theme: Sudden Impact... Newton's Second Law

1. Intake or Check-in: Talk about going from warm fuzzy to gravity...another form of energy.
2. Body Awareness Scan: Attending to gravity while sitting, standing, walking in place, side stretch and back to sit
3. Sharing/Education: Gravity has bad PR when in fact is critical to all we do. A very precise energy... not too much or too little, action = reaction to sit, stand and walk; treat it like electricity to make life better...not harmful. Contrast it with deprivation tanks.
4. Pranayama: Prana- breath- emotions-gravity, all energies. Seated, attending to the breath at the spine, sit bones, feet, head and heart, trying to sense gravity.
5. Postures: Series of modified yoga poses and gentle somatic lessons.
6. Guided Imagery/Relaxation: Gravity is energy, surrendering to gravity with complete relaxation. Segmental... % contract relax, focus on support of the

earth with surrender to gravity.

7. Meditation: Seated, observing the breath and gravity.
8. Affirmation: I will look for and honor gravity in my life.

Week 8 Theme: Star Guest... your new part

1. Intake or Check-in: Collect client results surveys; Thank and honor them for their participation; intro to *your new part*.
2. Body Awareness Scan: Summary scan of all: tension, stress, emotions, breath & gravity, then on prosthesis, trying to put sensation, color, shape, etc. to it for integration.
3. Sharing/Education: Read from 'The Universe Story' pp.49,60-61² describing the death of Tiamet, the sacrificial nature of the universe with rebirth, and the creation in that process of the rest of the elements, namely titanium to be used for creative purposes eons later....Therefore the presence of titanium in their body is ancestrally natural and related to the birth of our solar system; and that we are our bodies and more than our bodies.
4. Pranayama: 3-part breath, then directed toward prosthesis to bring healing and energy.
5. Postures Series of modified yoga poses and gentle somatic lessons.
6. Guided Imagery/Relaxation: Attune to breath; check in on what they experience now vs. first day of class; Oxygen of the breath releases energy from the sun...that energy supports and protects our bodies in concert with gravity... % relaxation... awareness to prostheses...honor it for what it does...for the intelligence that it represents of the designer, manufacturer, and surgical/rehab team...if appropriate thank a Higher power.... Be still with your breath.
7. Meditation: Intro "Aum" or "Om" as a cosmic sound and the Namaste salutation.
8. Affirmation: To continue on in their own rehab with full awareness.

A review of the Re-examination and Outcomes of the *Guide*, p. 1338 will demonstrate how this mode of delivery satisfies all 3 categories of Functional Limitation, Patient Satisfaction, and Secondary Prevention.

This unique program of delivery makes use of the healing aspects of community building within the group model. It represents an extension of services beyond restricted clinic visits. Payment is cash-based (10 participants @ \$10 each for 90 minutes), independent of third parties. There is a low capital start base and the program provides a perceived increase in value to the consumer. It can be used as a template for other market niches to include osteoporosis, arthritis, spine pain, women's health, runners, walkers, and fibromyalgia. The programs can be traditional exercise-based and do not have to be yoga. These classes can bring new clients into the facility and serve as a feeder service for other traditional PT services. The utilization of often perceived *infringing* professions such as body workers, movement therapists, and energy workers presenting these classes could create revenue generating/networking opportunities from off-hour space rentals.

Staff can be encouraged to express their creativity in areas of interest by developing these classes. The end results include producing quality PR material for the practice. With coordinated home product development of audios, videos, and booklets, additional revenue streams are created and can then be marketed across broader arenas such as the Web or professional *catalogs*. As staff develop their areas of professional expertise, the programs and materials can be marketed to state and national conferences for the various special interest or support groups. The times demand radical rethinking of how orthopaedic physical therapists are going to share their knowledge base, deliver their expertise, and in what settings this will occur. Yes, the manual approach will never be replaced, but much of what we have to offer is information. Like the stockbrokers in this information age, if we do not retool, someone else will deliver a significant portion of our practice without us.

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Glossary of Terms

This glossary is intended to be a reference to facilitate communication between yoga therapists and traditional western medical practitioners.

Asana A postural pattern, or sometimes erroneously referred to as a pose, in the third stage of yoga.

Aum (or OM) The sacred Sanskrit word for all. Refers to the concepts of Omniscience, Omnipresence, and Omnipotence. Described as the original sound or vibrational present since the origin of the universe. Interesting correlation to the know vibrational energies (electromagnetics, gravity, etc.) present in cosmological theories proposed by modern science since Planck Time (10^{-43} seconds) in the creation of the universe.

Breath The energy, spirit, or cause of breathing. More than the act of drawing air and out or the physiology of cellular respiration.

Chakra Wheels or circles of energy (prana) said to lie along the midline of the body that regulates the body mechanism. Classically 7 major centers, but vary with multiple minor areas. Interesting correlation with the central and peripheral nervous system to include nerve plexus

Closing Can be related to clutching, holding, or blockage at any or all 3 levels of the body, mind, and spirit. Anatomically can often, but not always be seen as flexion, pronation, or internal rotation from normal anatomical position.

Nadi Sodhana A form of pranayama that includes rhythmic alternate nostril breathing. Sometimes referred to as the Balanced Breath

Namaste Various translated Sanskrit word meaning the spirit in me honors the Spirit in you. Often used as a salutation. Also an asana where the hands are brought together over the heart.

Opening Can relate to a surrender, softening, or release at any or all levels of the body, mind, and spirit. Anatomically can often, though not always be seen as extension, supination, or external rotation from baseline.

Prana The energy of the universe to include breath, respiration, life, vitality, or strength. Western mind best relates to the physical energies of heat, light, gravity, magnetism, and electricity.

Pranayama The prolongation of breath and its restraint. Also described as the controlled intake and outflow of breath in a firmly established posture.

Somatic Part of or relating to the physical body. As a proper name, a program of movement therapy based on the work of Moshe Feldenkrais.

Yoga The enormous body of precepts, attitudes, techniques, and spiritual values that have developed in India over 5000 years. From the Sanskrit verb yuj, meaning to yoke or join. This can include the

individual's body, mind, and spirit, or the will of individual to the will of a higher or Divine power. A psychospiritual technology or philosophy, not a religion.

Yoga Nidra A form of deep relaxation (nidra-sleep) to include guided imagery, desensitization, and other techniques of yoga psychotherapeutics.

Yogic or 3-part breath As sequential pranayama variously described and performed. Generally includes filling the lower abdomen, solar plexus, and the chest, with reverse release. Engages all muscles of respiration.

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The New Physical Therapist: A Student's Perspective

Matthew T. Crill

I have had the unique opportunity, over the past 4 years, to be in more than one graduate program. I started my graduate career working on a Master of Science in Muscle Biology at Ohio University (Athens, OH). Through this program I was introduced to basic science concepts in the areas of physiology and anatomy, including research in those areas. This program has provided me a wonderful foundation as a young scientist and has given me the tools to teach students and peers. In addition, I have learned how to design well-controlled studies in the area of skeletal muscle research. However, this program did not curb my desire to pursue my career goal of becoming a physical therapist. After one year in the muscle biology program, I applied to Ohio University's School of Physical Therapy. Through this program, I acquired a broad scope of basic skills that will allow me to successfully treat patients with neuromusculoskeletal dysfunction. There are observations I have made during my graduate career that have created a vision that will serve as a guide as I seek employment in the following months. This vision is comprised of concepts that I believe we, as a profession, should strongly and carefully consider. These areas include research, our attitudes about the profession, and membership to the American Physical Therapy Association (APTA).

Research is an area in physical therapy that needs critical attention. In a health care system driven by third party payers, it is essential that we provide objective data that demonstrates the efficacy of physical therapy evaluation and treatment. Exercise physiologists base their programs on clearly established normative data obtained from a healthy population. The American College of Sports Medicine (ACSM) has been the leader in publishing exercise and fitness research and guidelines for a general population. Once an exercise physiologist conducts a fitness assessment, they can prescribe an exercise program based on an individual's maximal aerobic power, maximal anaerobic power, respiratory rate, oxygen consumption, and carbon dioxide production. These norms have been reproduced through countless experiments and demonstrated in multiple laboratories.

Physical therapists must strive to establish normative data for the infinite number of diagnoses that we are likely to see. Based on a patient's history, systems review, pain pattern, range of motion, strength, and flexibility data, we should be able to determine a treatment program that is commonly accepted and backed up by research and guidelines provided by the APTA. Exercise physiologists have dedicated their research efforts to establishing norms with a healthy population, and we must focus our research efforts to establish norms for a population that has various neuromusculoskeletal dysfunctions.

We also must focus our efforts on determining commonly accepted treatments for various diagnoses. Physical therapists should review the literature to determine what does and does not work. We must continue our focus on evidence-based practice and strive to provide rationale for our treatments. This will not only be beneficial to us as clinicians, but it will also educate third party payers on our standards of care.

There should also be strong encouragement of student research in all physical therapy programs. This will provide a foundation for those interested in research and help bridge the gap between basic and clinical science. Research should not be viewed as an obstacle or as a frustrating *rite of passage* for all students but as a necessary tool to aid in the advancement of our profession. Graduate students in all other scientific fields are viewed as a great resource to help design and implement studies with proper guidance from their advisors. It should be no different in physical therapy.

We also must embrace basic science research in addition to clinically applicable research. Many physical therapists disregard basic science literature because it doesn't answer the question, "How does that help me provide better care to my patients?" That is only one of many important questions that we must answer. Other health sciences encourage applied *and* basic science research. They also allow you to submit research findings to their journals and their conventions under these subcategories. Researchers in our profession have made great strides and have been

well received in scholarly publications and conventions focusing on neurology, orthopedics, and biomechanics. We must be leaders in conducting basic science research to elucidate the structure and function of muscles, tendons, bones, and neurons. Understanding this can give us a stepping-stone to ask more scholarly questions when we look for the clinical application. This 2-pronged approach to our research could be a valuable source of information for us in developing clinically established norms.

Once we understand the basic science *and* the clinical implications, we must implement this in our treatment programs. I do not stand alone in my desire for treatment programs based on scientific literature. Richard DiFabio, PT, PhD addressed this issue much more eloquently and thoroughly than I am able to here in his editorial in the November 1999 issue of JOSPT.¹ The point that I wish to make is that we must stop having conferences, seminars, and continuing education courses that give clinicians a "this is the way I do it" guide to treat our patients. We must use our clinical knowledge to guide our research questions and use our research findings as our guide for practice. If we do not do it, someone else will and our profession will be subject to the conclusions and findings that other researchers, who may or may not be advocates for physical therapy, investigate in their laboratories.

Our attitudes regarding the profession as a whole must change as well. For the past 3 years all I have heard about is the *glory days* when you had so many job offers and got paid huge amounts of money. I am glad that these days are over. I think the *new* physical therapist will be one who asks the tough questions, is relentless in the pursuit for life-long education, makes the patient the priority, and is not just in it for the money. These leaner times will determine those who are physical therapists because they are passionate about it, and those who are in it as a profession of convenience.

Finally, we must push for membership in the APTA. First of all, it is our professional duty to belong to the association that supports us as clinicians. But more importantly, APTA provides us

with publications, gives us a voice in Washington, and helps states in their battles for direct access, reimbursement issues, and turf disputes with other health professionals. If anyone has any complaints about how the APTA goes about its business, then I challenge them to get involved and focus on issues that the APTA may not be addressing. I believe that hard working people are the most important resource for the APTA to be successful.

To summarize, we have 2 choices—we can view these times as a threat to our profession and watch our clinicians choose other career paths or we can view these times as an opportunity. I choose to view these times as an opportunity to refocus our research efforts, encourage students to become physical therapists, and challenge those in the profession to join and support the APTA. I say these things because I believe in my profession and will continue to work for the rest of my life to show patients, health professionals, and the general public the benefits of a good physical therapist.

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(Continued from page 11)

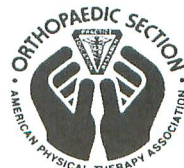
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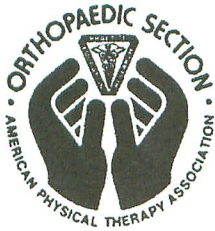
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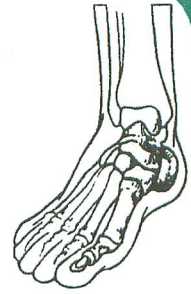
Rush Presbyterian St. Luke's Medical Center
Physical Therapy Department

Proudly Presents:

FOOT & ANKLE DYSFUNCTION: A CASE STUDY APPROACH

October 13-15, 2000 * Chicago, Illinois

Rush Presbyterian St. Luke's Medical Center, Physical Therapy Department



OBJECTIVE:

This two and a half day workshop is designed to provide the physical therapist with the required clinical and scientific knowledge base to effectively evaluate and treat a variety of conditions affecting the foot and ankle. The workshop will include a discussion of various foot & ankle management topics including: functional anatomy of the foot and ankle; the application of functional anatomy during dynamic movement of the foot and ankle; the utilization of footwear and foot orthoses in management programs; and evaluation and management protocols used in the treatment of foot and ankle problems associated with orthopaedic & sports injuries as well as with diabetes or rheumatoid arthritis. A special feature of this course will be the use of multiple case studies to clarify the scientific and clinical information that is presented. Case study reviews by the presenters in that topic area will comprise approximately 25% of the total course content hours.

SCHEDULE:

Friday, October 13, 2000

8:00AM -12:15PM: Basic Science of Foot Management

1:15 PM - 5:00 PM: Management of the Rheumatoid Foot

Saturday, October 14, 2000

8:00 AM - 12:05 PM: Management of Orthopaedic & Sports Related
Problems of the Foot & Ankle

1:15 PM - 5:00 PM: Management of the Diabetic Foot

Sunday, October, 15, 2000

8:00 AM - 12:30 PM: The Utilization of Footwear and Foot Orthoses

SPEAKERS:

Susan Appling, PT, MS, OCS

James Allen Birke, PT, PhD

Gary C. Hunt, PT, MS, OCS

Tom McPoil, PT, PhD, ATC

Michael Mueller, PT, PhD

Joseph Shrader, PT, CPed

CONTACT HOURS: 21.5

REGISTRATION FEES:

| | PT | PTA | STUDENT |
|----------------------------------|----------|----------|----------|
| Orthopaedic Section Members: | \$200.00 | \$125.00 | \$85.00 |
| Non-Orthopaedic Section Members: | \$255.00 | \$150.00 | \$105.00 |

LOCATION:

Hyatt, Chicago, Illinois

312.529.6002

Room Rates: \$189.00 single/double

CANCELLATION POLICY:

If notification of cancellation is received in writing prior to the course, the registration fee will be refunded, less a 20% administration fee. Absolutely no refunds will be given after the start of the course.

FOOT & ANKLE DYSFUNCTION

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Daytime Telephone: _____ E-MAIL: _____

FAX: _____ APTA ID: _____

Please Check: Orthopaedic Section Member APTA Member Non Member

Make checks payable to: Orthopaedic Section, APTA, Inc.

Please Circle:

Master Card/Visa#: _____ Exp: _____

Signature: _____

Send to: Orthopaedic Section, 2920 East Avenue South, Suite 200, La Crosse, WI 54601

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Orthopaedic Section, APTA

Home Study Course Series

History

The Orthopaedic Section, APTA, Inc. offers excellent continuing education through its Home Study Course series. Since 1991 we have been providing clinicians, faculty, and students with a stimulating choice of contemporary professional topics. Each course comprises comprehensive monographs that address different aspects of the topical area. Our carefully selected authors are experts in their respective fields.

How It Works

Each home study course includes 6 monographs and a binder to hold the course materials. Each monograph averages 20-28 pages in length and requires 4 to 6 hours to complete. All monographs contain 10 self assessment multiple-choice questions (answers are on the last page). Upon completion of the course, registrants receive a final examination containing 24 multiple-choice questions. To receive continuing education, registrants must complete the examination and return the answer sheet and the CEU form and must score 70% or higher on the exam. Registrants who successfully complete the exam will receive a certificate recognizing the contact hours earned. Only the registrant named on the registration form may obtain contact hours. Registrants are responsible for applying to their State Licensing Board for CEUs.

For courses in progress, registrants receive monographs monthly and must return their exam within 4 weeks of receiving the final monograph. For completed courses, registrants receive all 6 monographs and must return the exam within 90 days.

Continuing Education Credit

30 contact hours will be awarded to registrants who successfully complete the final exam.



Completed Courses Currently Available

- HSC 96-1 The Cervical Spine
- HSC 96-2 Topics in Orthopaedic Physical Therapy Assessment
- HSC 97-1 The Hip & Sacroiliac Joint
- HSC 97-A Clinical Approach to Management of Arthritis (This is a 3 monograph course. Contact the Section office for fees.)
- HSC 97-2 The Elbow, Forearm & Wrist
- HSC 98-1 Occupational Health
- HSC 98-A Strength & Conditioning Applications in Orthopaedics
- HSC 98-2 Pharmacology
- HSC 9.1 Diagnostic Imaging of Bones & Joints
- HSC 9.2 Orthopedic Interventions with Seniors
- HSC 9.3 Managing Lumbar Spine Dysfunction

2000 Courses

- HSC 10.1 Basic Science for Animal Physical Therapists (January-June 2000)
- HSC 10.2 Orthopedic Interventions for Pediatric Patients (April-September 2000)
- HSC 10.3 Contemporary Topics on the Foot & Ankle (July-December 2000)
- HSC 10.4 Disorders of the Knee (October 2000-March 2001)

2001 Courses

- HSC 11.1 Solutions to Shoulder Disorders
- HSC 11.2 Current Concepts of Orthopaedic Physical Therapy

Editor: Carolyn Wadsworth, PT, MS, OCS, CHT

If notification of cancellation is received in writing prior to the course, the registration fee will be refunded less a 20% administrative fee. Absolutely no refunds will be given after the start of the course.

Special discounts offered for multiple registrants. Contact the Section office for details.

Registration Fees

- \$150 Orthopaedic Section Members
- \$225 APTA Members
- \$300 Non-APTA Members

REGISTRATION FORM

Course #: _____ APTA #: _____

Name: _____ Credentials: _____

Address: _____ City: _____ State: _____

Zip Code: _____ Daytime phone : _____ E-mail address: _____

Please check:

Orthopaedic Section Member

APTA Member

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WI residents add sales tax.

I wish to join the Orthopaedic Section and take advantage of the membership rate. (Must already be an APTA member.)

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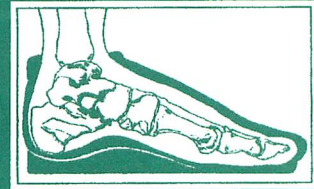
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HOME STUDY



Contemporary Topics on the Foot and Ankle

An Independent Study Course
Designed for Individual Continuing Education



Topics and Authors

- Normal Anatomy and Pathophysiology of the Foot & Ankle** Robert Donatelli, PT, PhD, OCS
- Contemporary Footwear Considerations** Tom McPoil, PT, PhD, ATC
- Foot and Ankle Orthoses** Mark W. Cornwall, PT, PhD, CPed
- Injuries of the Leg, Foot, and Ankle** Joseph E. Tomaro, PT, MS, ATC
- Diabetic Foot Problems** Nancy Balash, PT, USPHS
- Inflammatory Arthritis: Management of Foot & Ankle Problems** Joseph A. Shrader, PT, CPed; Karen Lohmann Siegel, PT, MA; and Naomi Lynn Gerber, MD

Editorial Staff

Carolyn Wadsworth, PT, MS, OCS, CHT—Editor Deb Nawoczenski, PT, PhD—Subject Matter Expert

Course Description

This course offers a broad selection of clinical topics that are relevant to physical therapists at all levels of experience. The well known, highly respected authors discuss state-of-the-art techniques for managing foot and ankle dysfunction, including footwear and orthotic prescription. You will learn the fundamental mechanics of force attenuation during weight bearing and the ramifications of compensation secondary to deformity, injury, and sensory loss. This is an excellent means to update your clinical decision-making skills.

Continuing Education Credit

30 contact hours will be awarded to registrants who successfully complete the final exam.

Registration Fees

Register now! First monograph available in July.
\$150 Orthopaedic Section Members \$225 APTA Members \$300 Non-APTA Members
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Special discounts offered for multiple registrants.
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If notification of cancellation is received in writing prior to the course, the registration fee will be refunded less a 20% administrative fee. Absolutely no refunds will be given after the start of the course.

10.3 Contemporary Topics on the Foot and Ankle

Name _____ Credentials (circle one) PT, PTA, other _____

Address _____

City _____ State _____ Zip _____

Daytime Telephone Number (_____) _____ APTA # _____

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OP

Book Reviews

Coordinated by Michael J. Wooden, PT, MS, OCS

Bottomley JM. *Quick Reference Dictionary for Physical Therapy*. Thorofare, NJ: Slack; 2000:574 pp., softcover, illus.

The *Quick Reference Dictionary for Physical Therapy* is a manual intended to provide a single source for retrieval of physical therapy related information. The manual begins with a 182-page dictionary of commonly used words and their definitions.

Following the dictionary, there were 40 appendices. Bottomley included information ranging from American Physical Therapy Association (APTA) documents to state licensure board information, to definitions of the many tests and measures involved in the practice of physical therapy.

In order to realize the full scope of this manual, the reader must be aware of the content and titles of the many appendices. Appendices 2 through 6 present lists of standardized physical therapy related terminology, acronyms, and abbreviations of words that would help therapists in any setting to develop their facility list of accepted abbreviations. Another feature of this book is the inclusion APTA documents including the *Code of Ethics*, *Guide for Professional Conduct*, *Standards of Ethical Conduct for the Physical Therapist Assistant*, *Guide for Conduct of the Affiliate Member*, *Standards of Practice for Physical Therapy and the Accompanying Criteria*, *Guidelines for Physical Therapy Documentation*, and the APTA's Mission and Goals Statements. Appendices 14 and 15 cover historical information about the physical therapy profession and a listing of past presidents of the association. A comprehensive and current list of addresses and contact information of state licensure boards, chapters, numbers to obtain copies of state practice acts, and pertinent Internet addresses are next.

Appendix 18 provides the World Health Organization's definition of impairment, disability, and handicap. Appendix 19 defines commonly encountered syndromes or pathologies. Appendices 20 and 21 describe frequently used tests and measures and interventions based on the *Guide to Physical Therapist Practice* of the APTA. Normal and laboratory values for joint ranges of

motion are listed, as are the standard classification categories for fracture types in appendix 24. Appendix 25 includes a table of reflexes and reactions of the central nervous system. Appendix 26 is the metabolic equivalent (MET) values table, and appendix 27 describes the cranial nerves. The next 2 appendices include pictorial representations of the muscles and bones.

After that there are appendices that offer weights and measures, metric conversion values, and symbols for documentation. In appendix 34, there is a delineation of prescription drugs, and appendix 35 includes recommended daily allowances of nutrients.

Appendix 36 is a copy of the *Guidelines for Physical Therapy Claims Review*. In appendix 37 there are definitions of alternative therapies to allow therapists to familiarize themselves with these approaches to care. A listing of possible resources and networking possibilities is provided in Appendix 38 by category or diagnosis. Appendix 39 lists the various APTA telephone numbers and addresses. The last appendix is a listing of many legislative policies that affect physical therapy, such as the Americans with Disabilities Act.

This reference guide should be a part of every therapist's library. Bottomley did an excellent job compiling many pieces of information into one source to allow easy access to information for the practicing clinician.

Edie Knowlton Benner, PT, MA, OCS



Vahlensieck M, Genant HK, Reiser M, ed. *MRI of the Musculoskeletal System*. New York, NY: Thieme Stuttgart; 2000:394 pp, 898 illustrations, hardcover.

This book is the authorized translation of the 1st German edition published in 1997 by Georg Thieme Verlag, entitled MRT des Bewegungsapparats. The editors, responsible for the translation of the original text, are medical physicians and faculty members at institutions in Germany and the United States. The book provides an overview of the use of magnetic resonance imaging (MRI) in the evaluation of joints,

muscles, bone, and soft tissue.

The book is divided into 14 chapters and an appendix that addresses, among other topics, differential diagnosis and examination protocols. The first chapter introduces the fundamental physics central to the techniques used with MRI to examine the musculoskeletal system. This chapter provides a synopsis of how a magnetic resonance signal is created followed by a comprehensive overview of various techniques used to optimize imaging of different tissues. Prerequisite knowledge of physics is needed to appreciate the descriptions given for the different techniques. Chapters 2 through 9 and chapter 14 each focus on different joints and the use of MRI to examine tissues associated with the joints. Each chapter begins with a review of relevant anatomy and a brief overview of the extent to which MRI is used in the examination of tissues associated with the joint. Following the anatomy section, each chapter addresses pathologies common to the region under study and techniques best suited to capture an image of the involved tissues. Numerous and excellent illustrations of MRI are provided and frequently are accompanied by labeled, schematic drawings to orient the reader to the anatomical section and level being depicted. Additional information is provided in tables to include recommendations on selecting techniques and interpreting findings with MRI. Chapters 10 through 13 address the use of MRI specifically for examination of musculature, bone marrow, bone and soft-tissue tumors, and osteoporosis, respectively. These chapters examine tissue-specific physiology and disorders commonly associated with the tissues, followed by explanations on the use of MRI to visualize pathologic processes. The chapters are well supported with schematic diagrams and MRI pictures to enhance the written text.

Overall, this text can serve as an excellent reference for MRI in the examination of bone and soft tissue. Although this book may not be appropriate for a physical therapy student, it would be a useful teaching tool to an educator and a reference to an experienced clinician. The comprehensive nature of the book and the generous inclusion of high-quality

ity illustrations make this book a very good source of information on the use of magnetic resonance imaging in the diagnosis of musculoskeletal and soft tissue pathology.

Brenda Boucher, PT, PhD, CHT



Scott RW. *Legal Aspects of Documenting Patient Care*, 2nd ed. Gaithersburg, Md: Aspen Publishers, Inc.; 2000;220 pp.

Mr. Scott's book can best be described as timely, important, helpful, and meaningful to physical therapists. Clinical compliance issues loom daily, par-

ticularly the increased demands of documentation for growing numbers of patients in a therapist's day. This book recognizes and addresses documentation priorities, looks at the shortcuts taken, cautions the reader regarding defensive styles, identifies what to do in case of errors or omissions, offers useful examples, and draws a map through the maze of legal implications of documenting the rehabilitation process.

The book is easy to read and not filled with the *legalese* so often found in other books on the subject. Sections flow easily between several pertinent topics. Of particular note is the thorough exploration and discussion of in-

formed consent. The section on quality health care management shares ideas for making the effort more than a compliance exercise. A comprehensive list of acceptable abbreviations appears in the Appendix.

By coincidence, this book was with me as I attended a corporate practice compliance meeting. The group's managers in attendance were able to resolve several problems, thanks in part to this well organized publication.

Jill Floberg, PT



Section News

PUBLIC RELATIONS REPORT

Researchers from Brooke Army Hospital are to be commended for their recent addition to our knowledge of exercise and osteoarthritis of the knee. The article citation is: Deyle G, Henderson N, Matekel R, Ryder M, Garber M, Allison S. Effectiveness of Manual therapy and Exercise in Osteoarthritis of the Knee. *Ann Int Med.* 2000;132:173-181. Their findings were well received by the media and wide distribution was achieved. The APTA had a press release on their web site and the findings also were sent through our media spokesperson net-

work (MSN). I hope that the MSN members were able to facilitate additional coverage. Their efforts help our profession in many ways. All of us need to be aware of these types of reports and utilize them in our local public relations activities as well as our practice.

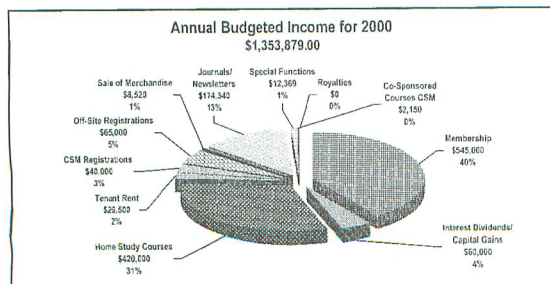
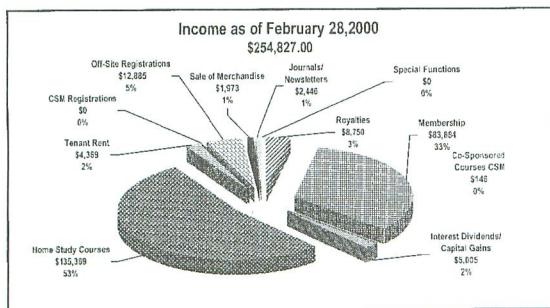
The exhibit booth was used at the physicians assistant's (PA) conference in Chicago on May 27th. Our booth was used at their meeting for the first time last year and the 5,000 PAs in attendance presented a good opportunity for us to inform them of our services. Physician assistants see a wide range of

medical problems but according to the American Academy of Physicians Assistants, they saw more than 14 million patients with musculoskeletal problems last year. Most work in primary care settings and therefore have ample opportunity to refer patients to a physical therapist.

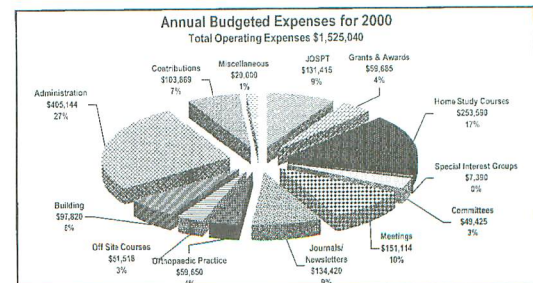
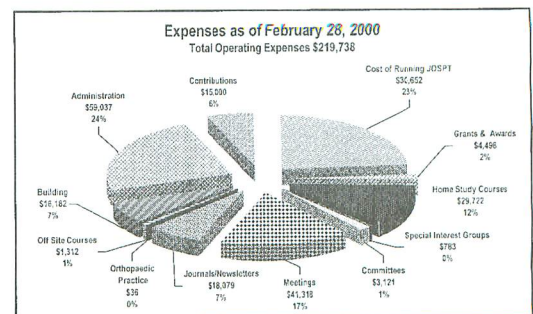
I notice more and more activity on the web pertaining to physical therapists. If you have been successful in promoting our profession please let the Orthopaedic Section office know. Terry Randall, PT, MS, OCS, ATC
Public Relations Chair

FINANCE REPORT

Orthopaedic Section, APTA, Inc
Year To Date Compared To Budgeted Income
2000



Orthopaedic Section, APTA, Inc
Year to Date Compared to Annual Budgeted Expenses
2000



REQUEST FOR PROPOSALS

ORTHOPAEDIC SECTION, APTA, INC.

CLINICAL RESEARCH GRANT PROGRAM

Purpose: The Orthopaedic Section must support its members by funding studies designed to systematically examine orthopaedic practice issues. The purpose of this grant program is to address the urgent need for clinical research in orthopaedic physical therapy.

Targeted Recipients of the Grant Program: The grant program is designed to provide funding for any Orthopaedic Section member who has the clinical resources to examine a well-defined practice issue, but who needs some external funding to facilitate the completion of a clinical research project.

Studies Eligible for Funding: The four types of studies that will qualify for funding are studies that: 1) examine the effectiveness of a treatment approach on a well-defined sample of patients with orthopaedic problems; 2) examine patient classification procedures for purposes of determining an appropriate treatment; 3) further establish the meaningfulness of an examination procedure or a series of examination procedures used by orthopaedic physical therapists; and 4) examine the role of the orthopaedic physical therapist in the health care environment. Authors must stipulate which purpose their grant is designed to address.

Categories of Funding: Two Grants at \$10,000 maximum

Two Grants at \$5,000 maximum

This program is designed for therapists who are ready to begin a project but need additional resources. The grant may be used to purchase equipment, pay consultation fees, recruit patients, or fund clinicians. Clinicians receiving funding from this program will be expected to present their results at CSM within 3 years of receiving funding. Recipients will receive \$300.00 to allay costs associated with presenting at CSM.

Criteria for Funding:

- A specific and well-designed purpose that is judged to be consistent with the four types of studies eligible for funding and described above
- The sample studied must include patients. For studies examining the role of the orthopaedic physical therapist in the health care environment, the sample studied would be therapists involved in the delivery of care
- Priority given to projects designed to include multiple clinical sites
- Priority given to studies examining treatment effectiveness
- Institutional Review Board approval from participating site(s) and letter of support from facility(ies) participating in the study
- Principal investigator must be an Orthopaedic Section member
- Priority given to projects that are currently not receiving funding
- The funding period will be 1 year
- Evidence of some pilot work
- The funding period will be 1 year, renewable for up to 3 years, if judged to be appropriate

Determination of the Award: Deadline for submission of grant proposals is December 1, 2000. Each application should include one original and six copies of all material. The Grant Review Committee will review and evaluation each eligible application. A total of \$30,000 is budgeted for grants each year (two at \$10,000 and two at \$5,000). All applicants will be notified of the results by March 1, 2001.

To receive an application, call or write to:

Clinical Research Grant Program
Orthopaedic Section, APTA, Inc.
Attn: Stefanie L. Snyder
2920 East Ave. South, Suite 200
La Crosse, WI 54601
800/444-3982 * 608/788-3965 (FAX)
e-mail: SSNYDER@CENTURYTEL.NET



OCCUPATIONAL HEALTH
PHYSICAL THERAPISTS
SPECIAL INTEREST GROUP



ORTHOPAEDIC SECTION, APTA, INC.

Summer 2000

Volume 12, Number 2

APTA Responds to OSHA on the Proposed Ergonomic Standard

Kenneth Harwood, MA, PT, CIE

On November 22, 1999, the Occupational Safety & Health Administration (OSHA) proposed an ergonomic program standard to address the significant risk of work-related musculoskeletal disorders (MSDs). With the proposed standard in place, OSHA estimates the 3 million MSDs will be prevented over a 10-year period of time. In addition, they estimate annual savings of approximately \$9 billion in total costs. According to OSHA Assistant Secretary, Charles Jeffress, "the ergonomics program proposed provides a practical, flexible approach to preventing musculoskeletal disorders."

The APTA enlisted the assistance of knowledgeable members, many of whom were OHSIG members, to review the proposed standard. Following the review process, the APTA went on record in support of the intent of the standard but submitted comments on the working document. The APTA has joined many professional organizations and private industry representatives in this review process. Presently, hearings are being held to review the proposed standard and some estimate that the standard may be in place some time next year.

PROPOSED ERGONOMIC STANDARD HIGHLIGHTS

In its present form, the proposed standard would mandate the creation of an ergonomic program in general industry that have employees involved in manual handling and manufacturing production jobs, and for all general industry who report one or more work-related musculoskeletal disorders. The proposed standard defines a musculoskeletal disorder as an injury of the muscles, tendons, ligaments, joint cartilage, and spinal discs.

To be considered covered by this standard, a MSD must be

1. diagnosed by a health care professional; result in a positive physical finding or serious enough to require medical treatment, days away from work or assignment to light duty work;
2. must be directly related to the employee's job; and
3. specifically connected to activities that form a significant part of the worker's job.

For those employers with manual handling or manufacturing production jobs, the proposed standard requires the establishment of a basic program. The basic program includes 2 components: Management Leadership and Employee Participation, and Hazard Information and Reporting. The first component requires the employer to designate an appropriate individual to be responsible for the program and encourage employees to participate in the program. The second component requires a system to be set up in industry to record and monitor signs and symptoms of MSDs. Additionally, employees must be provided periodic training in the prevention of MSDs. Under the proposed standard, OSHA estimates about 1.6 million employers would need to implement a basic ergonomic program.

If one or more of the covered MSD occurs within the company, the proposed standard requires the employer to set up a full program. The full program includes 6 elements. In addition to the basic program components, the employer must include a Job Hazard Analysis and Control System, Training, MSD Management, Program Evaluation and Recordkeeping. The Job Hazard Analysis and Control System component requires each employer to establish methods to analyze problem jobs for ergonomic risk factors. Also, employers must work with employees to eliminate or materially reduce MSD hazards using engineering, administrative, and/or work practice controls. In addition, a process to track changes in jobs and MSD hazards would be required.

The training component of the full program requires the employer to train all employees in jobs with covered MSDs. The training must include the recognition and control of related MSDs and an overview of the ergonomics program at the site. The training would need to be conducted at least every 3 years.

The MSD management component requires the employer to provide a prompt response to an injured employee and access to a health care professional at no cost to the employee. Information must be provided to the health care professional about the job, the MSD hazard, and the ergonomic standard. Additionally, the employer must provide necessary work restrictions and work-restriction protection during the recovery period.

Finally, the standard requires a periodic Program Evaluation. This structured evaluation would be required at least every 3 years and include input from employees regarding

the effectiveness of the program. In addition, the proposed standard requires the employer to maintain records for at least 3 years.

OSHA has included mechanisms where the implementation of a full program could be avoided by a quick fix method. In addition, there is a grandfather clause for those employers who have already established an ergonomics program. The details of these and other components of the program can be accessed from the OSHA website (<http://www.osha-slc.gov/ergonomics-standard/>), by hardcopy, or CD-ROM by calling OSHA's Publications Office at (202) 693-1888.

OPPORTUNITIES FOR PHYSICAL THERAPISTS

The APTA and OHSIG believe that this proposed standard offers many opportunities for the physical therapist. From the implementation of industry-based MSD prevention programs, train-the-trainer programs, to individual case management, physical therapists can play a major role in the implementation of the ergonomic standard. In addition to responding to the OSHA standard review process, the APTA has distributed a press release indicating our support of the OSHA standard and has offered examples to interested parties on the impact physical therapy has on occupational health, prevention, and wellness. The OHSIG is planning a number of activities to underscore our commitment to the prevention of MSD in the workplace. One activity will be a continuing education program on ergonomics at the next Combined Sections Meeting. For more information, please contact the APTA at 1/(800)999-APTA or the OHSIG through the Orthopaedic Section (800/444-3982).

Call for Nominations

Occupational Health Special Interest Group

The Occupational Health Special Interest Group (OHSIG) is seeking nominees for the office of Secretary and a member of the Nominating Committee. For each position the individual must be an OHSIG member and be willing to serve a 3-year term from February 2001- February 2004.

Duties and Responsibilities:

Secretary: The secretary is a voting member of the Executive Board, serves as Editor for the newsletter and chairs the Publications Committee. Some of the duties of the secretary include:

- Records, maintains, and distributes the minutes of the Annual Business Meetings and Executive Board meetings.
- Carries on official correspondence on behalf of the OHSIG.
- Serves as a liaison to the editors of Section and APTA publications
- Attends all scheduled Executive Board Meetings.

Nominating Committee Member: The Nominating Committee is comprised of 3 members whose duty is to prepare the slate of candidates for each OHSIG election. The senior member of the Nominating Committee serves as Chairman.

If you would like the opportunity to serve the OHSIG or know of a member who is interested, please fill in the requested information below and mail to the Section office. The deadline for receipt of the nomination is **August 1, 2000**



| | |
|---|--|
| _____ | Nominator: _____ |
| (Print Full Name of Recommended Member) | |
| _____ | Address: _____ |
| Address | |
| _____ | Phone: _____ |
| City, State, Zip | |
| _____ | Please return to: |
| (Area Code) Home Phone Number | Orthopaedic Section, APTA |
| _____ | 2920 East Avenue South, Suite 200 |
| (Area Code) Business Phone Number | La Crosse, WI 54601 |
| | FAX 608/788-3965 |
| | E-mail: ssnyder@centurytel.net |

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EDUCATION

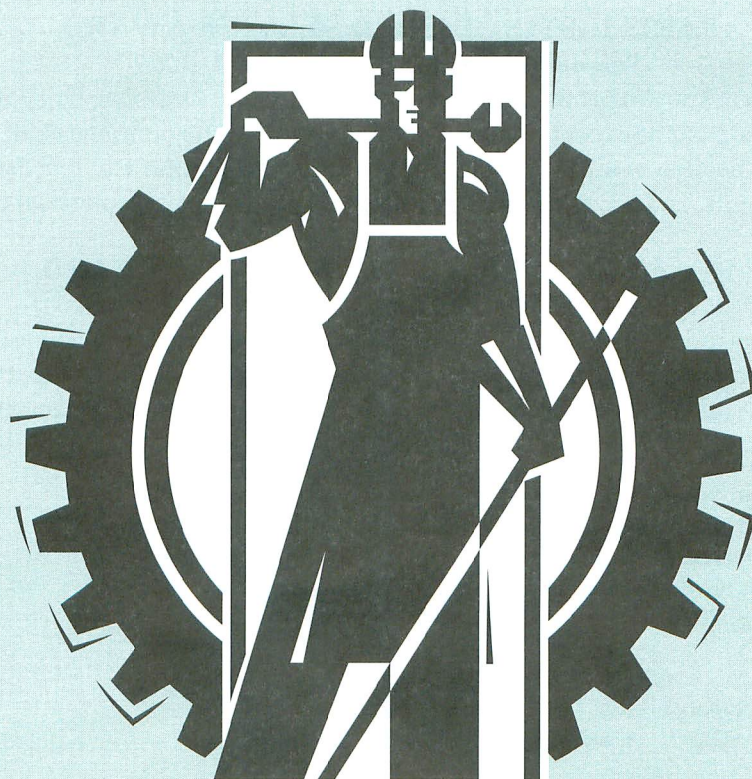
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MEMBERSHIP

open



CHECK OUT SOME OF THE AWARDS OFFERED BY THE ORTHOPAEDIC SECTION!

Listed below are descriptions of various awards offered by the Orthopaedic Section, APTA, Inc. Please contact the Orthopaedic Section office if you would like a detailed description of each award and the criteria for submission.

JAMES A. GOULD EXCELLENCE IN TEACHING ORTHOPAEDIC PHYSICAL THERAPY AWARD

Submission deadline: November 1, 2000

This award is given to recognize and support excellence in instructing OPT principles and techniques through the acknowledgement of an individual with exemplary teaching skills. The instructor nominated for this award must devote the majority of his/her professional career to student education, serving as a mentor and role model with evidence of strong student rapport. The instructor's techniques must be intellectually challenging and promote necessary knowledge and skills.

OUTSTANDING PT & PTA STUDENT AWARD

Submission deadline: November 1, 2000

The purpose of this award is to identify a student physical therapist and a student physical therapist assistant (first professional degree) with exceptional scholastic ability and potential for contribution to orthopaedic physical therapy. The eligible student shall excel in academic performance in both the professional and pre-requisite phases of their educational program, and be involved in professional organizations and activities that provide the potential growth and contributions to the profession and orthopaedic physical therapy.

PARIS DISTINGUISHED SERVICE AWARD

Submission deadline: November 1, 2000

This award is given to acknowledge and honor a most outstanding Orthopaedic Section member whose contributions to the Section are of exceptional and enduring value. The nominee shall have made substantial contributions to the Section in areas such as: professional recognition and respect for the Section's achievements, and advanced public awareness of orthopaedic physical therapy.

ROSE EXCELLENCE IN RESEARCH AWARD

Submission deadline: September 1, 2000

The purpose of this award is to recognize and reward a physical therapist who has made a significant contribution to the literature dealing with the science, theory, or practice of orthopaedic physical therapy. The submitted article must be a report of research but may deal with basic sciences, applied science, or clinical research.

Contact the Orthopaedic Section office for more information pertaining to the above mentioned awards, as well as the other benefits and services offered to Orthopaedic Section members!

Orthopaedic Section, APTA, Inc.
2920 East Ave. South, Suite 200
La Crosse, WI 54601
ATTN: Stefanie Snyder
800/444-3982 * 608/788-3965 (FAX)
www.orthopt.org



FOOT *&* ANKLE

SPECIAL INTEREST GROUP ORTHOPAEDIC SECTION, APTA, INC.

Greetings Everyone!

While this is a down time for the FASIG, there are several upcoming events that I would like you to know about.

The first FASIG/Orthopaedic Section sponsored Research Retreat was held May 19-20, 2000, at Annapolis, Maryland. Dr. Irene McClay has agreed to host this first retreat and the topic for it will be *Static and Dynamic Classification of the Foot*. The purpose of the retreat is to provide a forum for discussion on our current understanding of this topic as well as future research directions. While the retreat will have several primary speakers and several platform presenters, Irene has scheduled ample time for discussion and interaction among the attendees. This is a very important event for the FASIG as the results of the retreat can serve as a guide for future research efforts.

In addition to the retreat, the second 2 1/2-day FASIG/Orthopaedic Section seminar entitled FOOT & ANKLE DYSFUNCTION: A Case Study Approach will be held at Rush-St. Luke's Medical Center Physical Therapy Department in October 2000. The workshop is designed to provide the clinician with the clinical and science knowledge base to effectively evaluate and treat a variety of conditions affecting the foot and ankle. Multiple orthopaedic/sports, diabetic, and rheumatoid arthritis patient case studies will be used to clarify and illustrate the clinical and scientific information presented. The presenters are an exceptional group of clinicians and scientists in the area of the foot and ankle. Please watch for the advertisements regarding this course in upcoming issues of *OP*.

Steve Reischl and his committee have developed a final copy of the survey that has already been sent to all registered FASIG members. The survey is also included in this issue of *OP* for those of you who are not registered FASIG members but would like to be included in the database. The survey results will be used to establish a database of physical therapists currently providing various levels of foot and ankle care. In addition to gaining insight into the number of therapists actively involved in providing foot and ankle services, the information obtained from the survey will allow the FASIG to develop a referral data base of physical therapists who can provide various levels of foot and ankle care. Please take to time to fill out this short survey so that we can develop this important referral source.

Finally, please take the time to read the foot and ankle case study that is included in this issue of *OP*. Gary Hunt has submitted this case study on behalf of a former student Bill Karl. I thank Gary for submitting this excellent case

study on Bill's behalf.

In closing, I encourage all of you with an interest in the Foot & Ankle to become actively involved with the FASIG. The success of the FASIG is directly related to the involvement of the Orthopaedic Section members such as you! If you have any questions, suggestions, or comments regarding FASIG activities or upcoming events, please do not hesitate to contact me.

Best Regards as Always,
Tom McPoil
President, FASIG

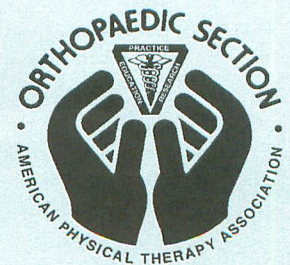
Foot and Ankle Case Study

Bill Karl, SPT, physical therapy student, Southwest Baptist University, Bolivar, Missouri
Rich Maas, PT, staff physical therapist, Cox Health Systems, Regional Center for Sports Medicine and Rehabilitation, Springfield, Missouri

Submitted by Gary C. Hunt, MA, PT, OCS,
Assistant Professor, Southwest Baptist University,
Springfield, Missouri

INTRODUCTION AND DEDICATION

Many student physical therapists graduate and become terrific clinicians. Bill Karl graduated from Southwest Baptist University in December 1998 and was a classic example. He was an outstanding young man and student in our physical therapy program. Recognized as a natural leader, he was elected to 2 terms as president of his class and at graduation was honored with the Physical Therapy Service Award. Unfortunately Bill lost his life in a motor vehicle accident only 3 months following graduation. While a student at SBU, he developed a case report, which he coauthored with Rich Maas, PT, staff therapist at Cox Outpatient Physical Therapy Department in Springfield, Missouri. This case presents an interesting example of a young athletically involved 12-year-old female who presented with a perplexing pain syndrome and movement dysfunction in the foot and ankle. This case submission honors Bill and his efforts to further our clinical understanding of foot and ankle related problems.
Gary C. Hunt, MA, PT, OCS





Bill Karl

PATIENT HISTORY

RB is 12-year-old female who enjoyed volleyball, basketball, horseback riding, and swimming. Her complaints centered on a painful left ankle that she injured in August 1997. These symptoms developed following an episode when she fell down 3 stairs, heard a "loud pop," and felt immediate pain in her left ankle. Radiographs taken that day did not reveal any fracture, dislocation, or epiphyseal plate injury. She was instructed to use an ace bandage and apply ice to control the swelling and pain. Her symptoms improved, but she noted episodes of increased pain with any physical activity. A significant increase in her pain occurred 3 months later without any obvious additional traumatic incident. The physician prescribed ibuprofen for pain, but she stated that significant benefit from this medication was marginal. She returned to the physician, more plain radiographs were obtained, and again they were read as negative. She was placed in an over-the-counter plastic ankle orthosis for 2 weeks without benefit and then placed in a short-leg walking cast for an additional 2 weeks. No improvement was noted with the cast and thus it was removed and replaced with a support stocking. Within the next 2 weeks, a triple phase bone scan was completed and it was also read as negative. At this point the patient was referred to physical therapy, approximately 5 1/2 months postinjury.

At the time of the initial physical therapy visit the patient had the following complaints: constant burning and aching pain in the left lateral ankle with an intensity varying from 4-7/10; frequent "popping" in the left ankle; numbness in the anterior aspect of her left ankle with variable tingling in the toes; occasional pain radiating from the foot to the knee; and a cooler, paler left foot compared to the right. Functionally she was very limited and could not participate in any of her school activities or sports interests.

SIGNIFICANT FINDINGS FROM THE PHYSICAL EXAMINATION

- The patient ambulated into physical therapy demonstrating a slight antalgic gait favoring the left foot. She was able to walk without any ambulatory device but stated that she could not stand or walk any longer than 15 minutes without significantly increasing her pain. She was not using any ankle orthotic device at this time.
- When asked to stand on the left foot, she was only able to balance for a few seconds and complained of increased foot and ankle pain and poor coordination. She demonstrated more internal hip rotation on the left during single limb balance assessment and this also was associated with greater medial arch collapse. Standing balance on the right foot was normal and without discomfort.
- The left foot demonstrated hyperhidrosis and was somewhat paler than the right. Sensation to light touch was diminished throughout the left foot and along the medial side of the left leg distal to the knee. A positive Tinel's sign was elicited at the peroneal nerve in the vicinity of the fibular head as well as over the more distal segments including the

sural nerve. Neurodynamic testing of the peroneal and sural nerves, utilizing the straight-leg-raise test on the left, reproduced burning/tingling pain in the lateral left ankle and dorsal/lateral foot.

- Active motion revealed 0° dorsiflexion bilaterally while preventing subtalar pronation compensation during measurement. Plantarflexion was 50° on the uninvolved and 35° on the left side. Other active motions of the foot and ankle were unremarkable. Passive dorsiflexion with calcaneal eversion or inversion reproduced burning and tingling pain around the lateral malleolus and foot and also discomfort in the Achilles tendon. Passive plantarflexion with calcaneal inversion reproduced pain around the lateral malleolus and anterior ankle.
- Joint play in the foot and ankle revealed slight laxity (grade II) of the anterior talofibular ligament (ATF). Other motions were symmetrical except left midtarsal motions (forefoot abduction/adduction, inversion/eversion, dorsiflexion/plantarflexion), which were hypomobile compared to the right. Hypermobility was present in the proximal tibiofibular joint on the left as compared to the right.
- All resisted foot and ankle motions were generally weak and testing produced discomfort in the lateral foot and ankle. Isometric testing of the biceps femoris reproduced generalized discomfort in the posterior lateral knee with associated burning and tingling in the lateral leg, ankle, and foot.

ASSESSMENT

The patient presented with a chronic pain syndrome of the left ankle, which had been present for about 5 1/2 months following an inversion ankle sprain. By the time she was seen in physical therapy, she had developed signs of neurovascular instability as evidenced by color changes in the foot along with burning pain and tingling. She also demonstrated hyperhidrosis in the foot and ankle region. Associated ankle joint hypermobility was identified by laxity (grade II) within the ATF ligament. Increased joint play was also noted in the left proximal tibiofibular joint. Stress to this proximal joint by contraction of the biceps femoris produced burning pain and tingling in the lateral leg and foot.

The combination of signs and symptoms implicated neurological involvement of the peroneal and sural nerves. Joint instability at the proximal tibiofibular joint seemed to be related to a possible traction source of irritation of the common peroneal nerve at the fibular head. Slight laxity of the ATF ligament was probably secondary to the initial ankle inversion injury. The injury may also have stretched the peroneal and sural nerves on the lateral ankle as well as a proximal stretch at the fibular head. The mechanism of injury, falling down 3 stairs, may have resulted in trauma to the proximal tibiofibular joint as well as an inversion stress to the ankle. Further questioning of the patient seemed to identify a twisted position of the left lower extremity during the incident.

MANAGEMENT PROGRAM

- Education regarding the mechanisms of her pain pattern

and symptoms were discussed in great detail with the patient and her mother. The steps of the healing process and the purpose behind the exercise program were emphasized. The importance of avoiding pain was stressed, as it would only tend to decrease the pain threshold and up-regulate nerve sensitivity.

- Active neuromobilization exercises on the peroneal and sural branches were to be done frequently and without pain in order to promote optimal vascular circulation and axoplasmic flow. These were performed in a seated position and included knee extension/flexion while the ankle was positioned in plantarflexion and supination for the peroneal nerve and then with the ankle in dorsiflexion and calcaneal inversion to focus on the sural nerve. The patient was also instructed to perform these exercises 10 times per hour per nerve throughout the day.
- Stabilization of the proximal tibiofibular joint was accomplished by applying a large elbow strap used for treating lateral epicondylitis. Her leg was small enough to utilize a large size strap, which was applied just distal to the fibular head in an attempt to control excessive mobility at this proximal joint.
- Balancing activities were also encouraged within pain tolerance with progressive challenge, as symptoms would permit.
- General motion and resistive exercises were also instituted to provide non-painful challenge to the tissues of the foot and ankle to promote normal tissue nutrition.
- Pulsed ultrasound was applied to the Achilles tendon for pain control and tissue stimulation (3 Mhz, 50% pulsed, 6 minutes per treatment).
- The patient was set-up on a 3x/week schedule.

FOLLOW-UP

Status at end of first week

- Symptoms of burning pain in the foot were unchanged but general discomfort in the ankle was reduced about 40% to 50% after the application of the proximal tibiofibular joint stabilization strap. The home exercises, including neuromobilization exercises and general foot and ankle exercises, were going well without increasing her pain. She attempted resistance with green theraband to the tibialis posterior but it was still too painful. Proprioceptive balance exercises were performed without significantly increasing her pain.

Status at end of second week

- Patient had the flu at the beginning of the week and had to cancel one appointment. By the end of the week she was feeling better and even her foot pain had decreased significantly. Proprioceptive exercises were possible on the mini-trampoline. She was using a tilt board for ankle motion while in a seated position. Closed kinetic resistive exercise was successfully accomplished on a leg press unit using 20 pounds of resistance. She was now able to use green theraband for resistive open kinetic chain exercise for the posterior tibialis muscle without reproducing pain. Pain was no longer constant and she actually noticed periods of time without pain. She continued to wear the stabilization strap with good results. She considered her pain to be 60% improved since starting therapy. The tingling and numbness had significantly decreased and she no longer had a posi-

tive Tinel's sign over the peroneal nerve. However, the sural nerve still demonstrated a positive Tinel's sign. Isometric resistance to the biceps femoris was less painful as well as resisted ankle dorsiflexion and plantarflexion. She was continuing with her home exercise program and felt that she was able to perform her neuromobilization throughout the day without interfering with her school responsibilities.

Status at the end of third week

- By the end of the third week, she no longer had positive Tinel's signs and had no burning pain or tingling. Foot range of motion was now normal. Single leg balance was no longer painful and she felt more stable. She was able to ambulate pain-free and considered herself to be 80% improved with regards to pain. No pain was expressed with isometric resistance to the biceps femoris or to any motions in the foot and ankle. She only had symptoms when she ambulated longer than 60 minutes. She felt more comfortable with the stabilization strap and continued to wear it most of the time. Patient and mother were very pleased with the progress.

LESSONS LEARNED FROM THIS CASE

- Distal pain patterns in the foot and ankle can be influenced by hypermobility of the proximal tibiofibular joint. The use of stabilizing straps to control this instability may be beneficial in reducing pain and improving movement.
- Peripheral nerves in the foot and ankle can be injured along with ligamentous tissue as a result of sprains and they take longer to heal. Improving microcirculation to nerve tissue and possibly improving the flow of axoplasm with frequent gentle non-painful exercise may be beneficial in resolving neurogenic pain.

FOOT & ANKLE OFFICER LISTING

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**FOOT & ANKLE SPECIAL INTEREST GROUP
ORTHOPEDIC SECTION, APTA
PHYSICAL THERAPIST FOOT CARE SURVEY**

The Foot and Ankle Special Interest Group (FASIG) would like to request you help in filling out the "Physical Therapist Foot Care Survey" below. Your help in completing the survey and faxing it back to the Orthopaedic Section is very important so that we can use the results to establish a database of physical therapists currently providing various levels of foot and ankle care. In addition to gaining insight into the number of therapists actively involved in providing foot and ankle services, the information obtained from the survey will allow the FASIG to develop a referral data base of physical therapists who can provide various levels of foot and ankle care. In appreciation your efforts in filling out and returning the survey, the FASIG will place your name in a drawing for the new upcoming Foot and Ankle Home Study course. Again, thank you for taking the time to fill out and return this important survey!

NAME: _____

ADDRESS: _____

PHONE (DAY): _____ E-mail: _____

- 1) What is your current primary practice environment?

| | | |
|------------------------------|-------------------------------------|--------------------------|
| a) General/Acute inpatient | d) Outpatient - Hospital Based | g) Home Health |
| b) Rehabilitation inpatient | e) Outpatient - Nonprivate Practice | h) Other: Specify: _____ |
| c) Rehabilitation outpatient | f) Outpatient - Nonprivate Practice | |
- 2) What is your major job responsibility(s)? (33.3% or more of the day - Circle all that apply)

| | | |
|---------------|-------------------------|-------------------------|
| a) Staff PT | d) Director/Chief | g) Other Specify: _____ |
| b) Senior PT | e) Clinical Instructor | |
| c) Supervisor | f) Clinical Coordinator | |
- 3) Primary patient population seen in your practice?

| | |
|--------------------------|-----------------------------------|
| a) Sports Medicine _____ | e) Geriatric _____ |
| b) Performing Arts _____ | f) Amputee _____ |
| c) Diabetes _____ | g) Wound care (nondiabetic) _____ |
| d) Pediatric _____ | |
- 4) The number of patients/clients seen per week with foot and ankle conditions?

| | | | | |
|------|--------|--------|---------|--------|
| a) 0 | b) 1-3 | c) 4-7 | d) 8-12 | e) >12 |
|------|--------|--------|---------|--------|
- 5) Types of foot and ankle conditions you treat each month? (Check all that apply)

| | |
|--|--|
| a) Posterior tibialis tendonitis/dysfunction | l) Metatarsal head pain |
| b) Achilles tendonitis/rupture | m) Mortons toe |
| c) Plantar fasciitis | n) Mortons neuroma |
| d) Posterior heel pain | o) Interdigital neuroma |
| e) Ankle sprain | p) Chronic lateral ankle instability |
| f) Stress fracture of leg or foot | q) Chronic lower leg pain (shin splints) |
| g) Tarsal tunnel syndrome | r) Claw or hammer toe |
| h) Hallux limitus/rigidus | s) Diabetic foot care |
| i) Fracture of the Ankle, Foot or Toes | t) Sesamoiditis |
| j) Hallux Valgus/Bunion | u) Rheumatoid foot & ankle problems |
| k) Bunionette (5 th toe) | v) Plantar fibromas |
- 6) Please indicate a percentage of the frequency of physical therapy visits you see for each patient/client with foot and ankle conditions?

| | |
|---------------------------|---------------------------|
| a) 3 times per week _____ | d) once per 2 weeks _____ |
| b) 2 times per week _____ | e) once per month _____ |
| c) once per week _____ | f) other _____ |
- 7) Please indicate the percentage of time that you use the following specific treatment interventions in your management program. Please provide an answer for each intervention.

| | |
|--|--|
| a) Patient/Client education _____ | f) Home stretching program _____ |
| b) Manual stretching _____ | g) Physical agents (heat, cold) _____ |
| c) Joint mobilization _____ | h) Electrotherapeutic modalities _____ |
| d) Soft tissue mobilization/myofascial release _____ | i) Fabrication of foot orthoses _____ |
| e) Strengthening exercises _____ | j) Footwear assessment/recommendations _____ |
- 8) There is a wide variety of foot orthoses that can be used in the management of patients/clients with foot and ankle disorders. Please indicate the types of foot orthoses you utilize in your practice

| | |
|---|--|
| a) Over-the-counter foot orthoses purchased by patient elsewhere | d) Foot orthoses fabricated in the practice location by physical therapist |
| b) Prefabricated foot orthoses dispensed by the therapist or office | e) Foot orthoses fabricated in the practice location by another health care professional |
| c) Prefabricated foot orthoses with modifications done by therapist | f) Foot orthoses fabricated from a cast sent to outside laboratory |
- 9) The state in which you currently practice _____
- 10) In your state is direct access available? Yes _____ No _____
- 11) If you answered YES in question #10, do you see foot and ankle patients/clients via direct access? Yes _____ No _____
- 12) If the state in which you currently practice does permit direct access for physical therapy and you answered NO in question #9, would you please provide a reason for not seeing patients/clients with foot and ankle disorders via direct access? (eg, insurance reimbursement issues; malpractice issues) Reason(s): _____
- 13) Do you participate in Primary Care Physical Therapy? Yes _____ No _____
- 14) If you answered yes in question #13, do your practice privileges allow you to... (Circle all that apply)

| | |
|---|---|
| a) Order/request radiographs | d) Order/request medications |
| b) Order/request other imaging procedures (bone scan, CT scan, MRD) | e) Order/request casts/braces |
| c) Order/request blood or other laboratory tests | f) Order/request other tests/procedures/equipment |

Please return on or before July 14, 2000

Orthopaedic Section, APTA, Inc., 2920 East Ave. South, Suite 200, La Crosse, WI 54601 • 800/444-3982 * 608/788-3965 (FAX)

PASIG

Performing Arts Special Interest Group • Orthopaedic Section, APTA

President's Message

Just an update to let everyone know that the Executive Board is pursuing the necessary steps to undertake a formal practice analysis of our SIG. Anyone interested in serving as a content expert for performing arts physical therapy, please let me know. We will be contacting the membership for participation in this process over the next few months.

Thanks in advance for your help.

Jennifer M. Gamboa, MPT
PASIG President

One Small Step for Rehabilitation, One Giant Leap for a Dance Academy

Jennifer M. Gamboa, MPT

One of the biggest challenges a therapist faces when treating injured performers is balancing the need for tissue healing with the patients' desire to perform. Perhaps this should not be an issue— heal first, perform later. But for elite dancers, there is a strong bias toward performing at all costs. So, therapists must often negotiate competing demands of healing and performing. These issues become even trickier to handle when the dancers are preprofessional adolescents, who are boarding away from home and training at an elite classical ballet academy. In such an environment, the dancers are subject to enormous pressure, from both peers and the artistic staff, to ignore injuries. And, there are too few adults advocating for the children's health.

My staff and I provide on-site therapy services in just such an environment in Washington, D.C. While we have had little positive effect on the attitudes of the Russian-trained artistic faculty, we have been able to establish some extensive wellness programming with the support and cooperation of the academic faculty. With the implementation of this programming, we have slowly been able to reduce the number, and delay the onset, of injuries. We are still working to reduce the length of time the dancer spends in rehabilitation, once he or she is injured.

It has taken 4 years to begin integrating our health care/wellness program into this Academy's program. We discovered early on that rehabilitation services were not enough to manage the rate and magnitude of injuries that were occurring, particularly when artistic staff was unwilling to allow dancers to modify their technique classes. Attempts to gain the cooperation of the artistic staff were not successful. Dancers would progress in therapy only to reinjure themselves

in class. In multiple cases, this cycle did not end until we sent the dancers home, or surgery was indicated.

To break the injury/reinjury cycle in this intolerant culture we pulled together an interdisciplinary team that includes the Academy's nurse, the Dean of Academics, an orthopedist, an exercise physiologist, and a physical therapist. Our program includes prevention and education, as well as rehabilitation. Under prevention, we conduct a comprehensive annual screening in conjunction with the school's nurse and an on-site exercise physiologist. This screening assesses health history; postural and structural alignment; body composition; current strength, flexibility, and cardiovascular endurance; functional movement integration; nutritional status; and psychological profiling relative to eating attitudes and coping mechanisms.

We use the results of the screening for 2 purposes. First, we identify dancers who are at risk for injury or eating disorder. Second, we use the data to develop specific conditioning programs for each age group. We also have been able to integrate a full weight-training and cardiovascular program into the students' academic curriculum. That program is supervised by an athletic trainer. Students are graded on participation, and the program is done outside their dance curriculum. We also conduct special seminars in their academic health classes to introduce students to Pilates, Yoga, and other alternative movement therapies.

The education component of our health care/wellness program includes monthly seminars for the students that are conducted within the academic curriculum. Topics include injury prevention and management, nutrition for adolescents, dealing with performance anxiety, and more. We conduct an annual seminar with the parents at the beginning of each year to orient them to injury prevention and management and the health care/wellness program at the Academy. We also provide one-on-one nutritional education to help students meet their weight goals safely. Our goal for next year is to begin conducting in-services with the artistic staff to provide them with some of the same information we have provided to the students.

We continue to provide on-site rehabilitation for those dancers who do sustain injuries. Since the implementation of our program we have seen a reduction in the number of injuries, and those injuries that do occur come later in the year. We do still find that rehabilitation is very slow because the dance classes are sustaining or exacerbating the injuries. Our next step is to implement a transition dance class, specifically designed for injured dancers who need to modify their class, in order to continue dancing and healing at the same time.



UPCOMING EVENTS:

Update in Dance Medicine

Harkness Center for Dance Injuries
(a program of the Hospital for Joint Diseases)
New York, New York • June 2-3, 2000

A 2-day conference that will integrate lecture material with hands-on laboratory sessions. Open to physicians and allied health professionals. Continuing education credits are available. Please call (212) 598-6022 for more information.

TO ALL PASIG MEMBERS!!! WE NEED YOU!!!

The PASIG is actively seeking articles on the goings-on around the nation in the performing arts community. New and interesting treatments, unusual or intriguing case studies, collaborative efforts between dancers, musicians, PTs, YOU decide!!!

Articles do not have to be a particular length and we'd love to hear from you! Share your ideas today and help your specialty area grow! Contact Jeff Stenback at (305) 595-8492 or e-mail: JSPTOCS@aol.com

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We now have new PASIG LOGO PINS and BROCHURES to help you advertise and build your performing arts practices. Our directory has been updated and includes state-by-state and alphabetical listing of PASIG members. And don't forget, we still have DANCE/MUSIC GLOSSARIES available.

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- Promote collaboration among dance-related organizations.

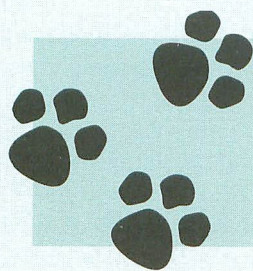
People are needed to help out at the PASIG booth and advocate for the PASIG. For more information contact Jennifer Gamboa at: 703-527-9557 or Jenn526@aol.com or contact the website for the conference at: www.artsnet.org/dance2000

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Animal

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Orthopaedic Section, APTA, Inc.



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CALENDAR OF EVENTS

1. The home study course BASIC SCIENCE FOR ANIMAL PHYSICAL THERAPISTS is now available. Call toll free 877-766-3452 or 608-788-3982 for more information.

THE ANIMAL PHYSICAL THERAPY SIG UPDATE

1. Orthopaedic Section Member and nonmember directories are available through the Section Office 800-444-3982, Fax: 608-788-3965, or Email: ssnyder@centurytel.net
2. As of January 2000, there are 447 Orthopaedic Section members to the SIG and 741 people interested, who are non-Orthopaedic Section members for a total of 1188 people.
3. State Liaisons: To date there are 33 states that have Animal Physical Therapy SIG Liaisons. Contact Siri Hamilton for further information 865-974-2993 e-mail: sirivtpt@utk.edu.
4. **Course Report: Canine One: Denver** Cheryl Riegger-Krugh PT, ScD President
Canine One: The Basic Principles was presented in Denver, CO on April 7 and 8, 2000.
The course was given by a collaborative team of veterinarians, physical therapists and an animal behaviorist at the University of Colorado Health Sciences Center and Bel-Rea Institute of Animal Technology. The course was hosted by the Colorado Canine Sports Medicine/Rehabilitation Clinic of the Alameda East Veterinary Hospital. The course was attended by 31 participants, almost exclusively physical therapists. Course content included legal issues, comparative anatomy, gait analysis, animal behavior, cadaver and bone laboratory, common neurologic and orthopedic conditions, physical exam, patient assessment, and basic rehabilitation techniques. The course attendees and presenters all enjoyed a tour of the rehabilitation facilities at Alameda East. A number of attendees expressed interest in collaborating with veterinarians to provide rehabilitation for animals. A group of surrounding metro Denverites will begin meeting to discuss rehabilitation interventions for animals and experience with animal cases.
5. With thanks and gratitude to Jerry Krugh. With respect to the Animal PT SIG, he spared the Animal Physical Therapist Basic Science canine home studies from certain inability to meet the deadlines for completion. Within days of completing a 5-month, 20-hour a week in class (and then there was the class preparation) certificate course in network administration, he spent about 60 hours within the next 10 days to typeset and label all of the figures in the canine home studies. His dedication and generosity will always be remembered.

NICHE PRACTICES - THE NONHUMAN NICHE by Cheryl Riegger-Krugh, PT, ScD, President

The title of this special issue is particularly relevant for the Animal Physical Therapist Special Interest Group (Animal PT SIG). The innovative spirit of physical therapists (PT) and the recent health care environment have prompted PTs to consider unique ways of applying the knowledge base of physical therapy. Within physical therapy there are selective human patient populations and interventions, while in this SIG, there also are unique nonhuman patients. The most common interventions to date have been directed toward dogs and horses, however, many mammals, reptiles, birds, and other species have received modification of human intervention to rehabilitate animals with injuries or pathology.

Advances in the area of human rehabilitation have preceded the development of rehabilitation to benefit animals. This is an unusual twist as traditionally animals have been involved in research to benefit humans. Research in human rehabilitation hopefully will allow physical therapists working with animals to progress more quickly than has occurred with humans in areas such as:

- analysis of meaningful movement strategies for animal species and individual animals;
- recognizing the relationship of impairments, functional limitations, and disabilities within animal movement function;
- development of meaningful outcome measures for comparing interventions; and
- development of interventions for animals at risk for injury or pathology, ie, prevention.

NICHE PRACTICES-ANIMAL PHYSICAL THERAPY

by Caroline Adamson, PT, MS

When asked to write a short piece on my position now, I shook my head and chuckled out loud. My professors in school, as well as my classmates, thought I was crazy to pursue this area of physical therapy. I always had confidence that it would happen...someday. I just didn't realize it would take a faster turn than expected. Sometimes, I still can't believe it myself.

Like many of my colleagues, I was having a difficult time finding a permanent position as a physical therapist. Months went by with one interview after another and still no job. In the meantime, I chose to attend a continuing education course in Tennessee on canine physical therapy. A few months later, I flew to Oregon to attend the First International Symposium on Rehabilitation and Physical Therapy in Veterinary Medicine. With the many contacts I made, I began to find that I was interviewing for more animal physical therapy positions than human physical therapy positions.

I finally settled here in Denver, working with Dr. Robert Taylor at Alameda East Veterinary Hospital. Getting our

Colorado Canine Sports Medicine/Rehabilitation Clinic started was no easy task. The job entails quite a bit more than just treating animals. I was grateful to have some working knowledge of an animal hospital. Though I never received an official veterinary technician license, I worked as a veterinary assistant for a number of years and received on-the-job training. In addition to those duties I handle marketing strategies, costs, evaluation forms, treatment guidelines, and dealings with sales representatives, etc. All must be in working order. There are certainly a lot of unknowns to deal with as well. Research related to documenting outcomes for particular interventions for animals is not available. Developing a clinical sense with available equipment and developing viable research proposals will be an ongoing project.

Where do I see this going in the future? I feel we have taken a step in the right direction by forming this specialty in a collaborative manner with veterinarians. It is imperative that this collaboration is fostered in a nonthreatening manner and education continued to make others aware of what we have to offer.

The field of animal rehabilitation is going to explode. Already I am seeing positive outcomes in the variety of orthopedic and neurological cases I've treated. There will be an ongoing need to perform precise clinical trials in order to offer better services and expected outcomes to our clients and animal patients.

FREQUENTLY ASKED QUESTIONS (FAQ)

Kristinn Heinrichs, PT-SCS, PhD, ATC, CSCS, Education Chair

Here is the first in a series of FAQ about physical therapy with animals. These will be published in the newsletter as space allows and be accessible to send to people requesting information. We also will pursue posting these FAQ on the web.

Question: I am interested in physical therapy for animals. How do I get information to get started?

First, if you are not already a physical therapist, you should pursue completing a degree in physical therapy. (This is a whole different question.) If you already are a physical therapist, read on.

This is a summary of what has occurred in the United States over the last 5 to 10 years in the field of animal physical therapy. It became apparent to those of us working in the field that a formal organization was needed for continuing education, exchange of information, etc. Most of us who have been working in the field have gained our experience through direct working relationships with veterinarians. The need for research in this field is critical, and we have learned that what works for people does not always easily apply to animals. Optimal intervention protocols, analysis of movement strategies in animals, movement re-education in animals, optimal use of physical agent modalities, and many

other areas need to be explored in much greater detail if we can make a difference in this field and demonstrate the benefits of physical therapy.

The Orthopaedic Section, APTA, Inc. has several special interest groups (SIGs). The Animal Physical Therapist Special Interest Group (formerly the Veterinary Physical Therapy Special Interest Group) now has approximately 300 members (website <http://www.orthopt.org/vtsig.html>). We publish a newsletter in *Orthopaedic Physical Therapy Practice* (a publication of the Orthopaedic Section). One of our major tasks is the proposal of a formal training or certification process and getting it approved by the APTA, as well as accepted by veterinary associations. We have also sponsored continuing education courses, the next one being a canine course in Knoxville, TN on June 9-11, 2000. We are completing a home study course series through the Orthopaedic Section. This home study course includes 3 canine and 3 equine monographs.

Interest in the field of animal physical therapy also has been rising among veterinarians, and many of their major conferences (ACVS, VOS) have recently had presentations relating to it. Several clinics with a physical therapist available full-time in the US are now open, and many more are following. The development of a collaborative international group of veterinary and physical therapy practitioners is being planned.

Each state has language referring to the patients that the clinician is licensed to treat. In many states, the physical therapy practice act specifies that humans are the only patients that the physical therapist is licensed to treat. Because of this fact, intervention with animals may be referred to as physical rehabilitation with animals. At this time, the APTA endorses a collaborative relationship with veterinarians and the provision of physical therapy services by physical therapists and physical therapist assistants.

For those further interested in the field in the US, please feel free to contact me, or any of the officers of the Animal Physical Therapist Special Interest Group.

Risk Management 101: Basic Risk Management Considerations for Animal Physical Therapy *Jennifer Baker*

The American Physical Therapy Association (APTA) is aware that, in the current health care environment, physical therapy professionals are finding new ways to market their services, including opportunities within the veterinary industry. What is important from a risk management perspective is that physical therapists research and understand what they can and cannot do before entering new areas of practice, and what constitutes the provision of a professional service versus the provision of a more general veterinary related service.

While there is no question that physical therapists have knowledge and skills that can be appropriately applied in the veterinary arena, the reality is that this is still a very gray area. The APTA and the AVMA both allow for collabora-

tive relationships between physical therapists and veterinarians; however, at this time, most states do not yet recognize this type of practice as falling within the scope of practice for physical therapists. For this reason, before starting to work with animals in any professional capacity, physical therapists should be certain that they are acting in compliance with both the physical therapy and veterinary practice acts in the state(s) in which they are licensed. They should also consider carefully whether or not their scope of personal competence is compatible with the type of services they provide.

Most physical therapy professional liability policies, including one endorsed by APTA and administered by Healthcare Providers Service Organization (HPSO), are designed to cover the physical therapist for medical incidents that arise from the performance of professional services falling within the scope of the physical therapist's state practice act. State practice acts are designed to protect the public. They define what falls within the scope of practice of physical therapy, and in some instances, they specifically identify procedures that are considered to be outside the scope of practice. If a practice act does not specifically mention a particular activity, it may be appropriate for a physical therapist to engage in it, it is ordinarily considered to be a part of physical therapy and if some other state law does not prohibit physical therapists from performing the activity.

With this in mind, the Animal Physical Therapist Special Interest Group has created a liaison program to assist members. In most all states, a liaison is available who has obtained a copy of their state's physical therapy practice act and veterinary practice act, with the goal of producing a resource directory for therapists who are interested in working with animals. To find out who your state liaison is, contact the national liaison coordinator, Siri Hamilton, PT, LVT at (865)974-2993.

In the meantime, individuals can contact the appropriate state licensure boards for physical therapy and veterinary medicine themselves. Following are suggestions to assist you with your review of the physical therapy practice act. Remember, it is important not to assume. Be sure to request clear answers to any questions you may have.

- If the act does include language that limits practice to humans, by using terminology such as humans, people or persons, then practicing on animals would be a risky professional choice - unless the physical therapist is also a licensed veterinarian or licensed veterinary technician. Use of terminology such as clients or patients would not necessarily exclude practice on animals, but the therapist should check with the licensure board to be sure.
- If the activities are covered, or are not mentioned at all, but are within the scope of physical therapist practice as defined by the *Guide to Physical Therapist Practice*, you should be able to obtain coverage under a physical therapist professional liability policy for these activities.
- If, after reading the practice act, it is still unclear whether or not the activities are covered, contact either the state licensure board for written clarification, or consult with a local attorney for legal opinion.

- If the activities are specifically excluded in the practice act, it is unlikely that a physical therapy professional liability policy will offer protection to the physical therapist should an incident arise while performing the activities.

Another issue to be mindful of is that of access. From the PT point-of-view, the issue is whether or not a referral is required prior to evaluation or treatment. In many states that require a referral, the providers that can refer to physical therapy are listed in the practice act. If veterinarians are not listed as acceptable referral sources in the practice act, then a referral from a veterinarian would not satisfy the referral requirement. From the veterinarian point-of-view, the issue is whether or not a therapist can evaluate or treat an animal without the supervision of a veterinarian. The bottom line is that therapists who work with animals need to be mindful that they are intersecting with another professional domain and, at a minimum, should always take a step of consulting with a veterinarian before commencing with treatment.

Finally, it is also important to note that incidents involving practicing on animals most likely are not going to be covered by a physical therapy professional liability policy, unless there has been a direct physical therapist/patient relationship. In order for an interaction to be considered part of a physical therapist/patient relationship, there is usually a level of evaluation and documentation that is performed and recorded by the physical therapist. Since there is usually a third party—such as an owner—involved in any interaction with an animal, physical therapists should contact their insurance carrier to determine how/if their coverage would handle third party claims and find out whether or not they might need additional coverage. One potential source for alternative coverage may be your local Veterinary Professional Association. To find out about veterinary resources both nationally and in your area, you can visit the American Veterinary Medical Association Web site at www.avma.org.

HOW TO FIND OUT MORE

For general information about animal physical therapy, you can contact the Animal Physical Therapist Special Interest Group by calling the Orthopaedic Section of the APTA at 800/444-3982, or visiting www.orthopt.org/vtsig.html. In addition, there is the Animal Physical Therapy Resource Manual by Lin McGonagle, PT, MS that contains valuable information and a variety of helpful references. This manual is not available through APTA, because it is an independently written and produced resource. To obtain a copy, e-mail Ms. McGonagle at lin@envisage1.com

- To address specific legal issues to animal physical therapy, please contact David Levine, PT, PhD at 423-755-5240.

About the Author: Jennifer Baker is the Director of Insurance and Member Benefits at APTA. She can be reached by phone at 800/999-2782 ext 3145.

CSM 2001 CALL FOR CASE STUDY REPORTS

The Animal PT SIG is planning to present case study reports at CSM 2001. The goal for the presentations is to acknowledge the effect of intervention for animals. Few clinicians have had the opportunity to assess intervention of a group of animals. Success with one animal may be the clinical basis for pursuing a study with a larger number of animals or the encouragement for a clinician to try a particular intervention. We welcome submission of abstracts for this case study session at CSM 2001. All presentations at the Animal Physical Therapist SIG session will be platform presentations. Preference in acceptance will be given to members of the Animal PT SIG and to those on the "List of Individuals Interested in Animal (previously known as Veterinary) Physical Therapy." We encourage poster presentation submissions related to animal physical therapy through the call for participants through the APTA.

General Criteria for Acceptance of all Abstracts

The Abstract:

1. Addresses validity and reliability of the content
2. Is interesting to physical therapists and physical therapist assistants
3. Contributes useful knowledge, such as professional direction, insightful point of view, patient care recommendations, cost efficiency of patient care
4. Addresses a current and relevant problem or issue in rehabilitation care for animals

Criteria for Patient Case Reports

1. Purpose, question or problem is clearly stated
2. A clinically relevant description of the patient is included
3. Relevant patient/owner history, evaluation procedures, intervention procedures, results and outcomes are included
4. Terms and concepts are stated in professional language and are defined operationally
5. Discussion / conclusion has clinical relevance

A patient case report abstract should include the following topics with topic headings in bold:

Purpose:
 Subject Description:
 Owner description (if relevant):
 Examination and Evaluation:
 Outcome measures used:
 Intervention:
 Results, including result of outcome measures:
 Conclusion:
 Clinical Relevance:

Due Date: Abstracts must arrive by October 1, 2000

Submit abstracts to:

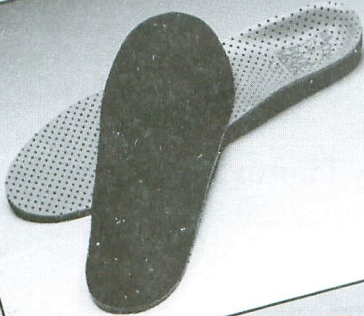
Kristinn Heinrichs, PT-SCS, PhD, ATC, CSCS
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Refer to page 49 of Vol. 12 No. 1 for further details on submitting an abstract.

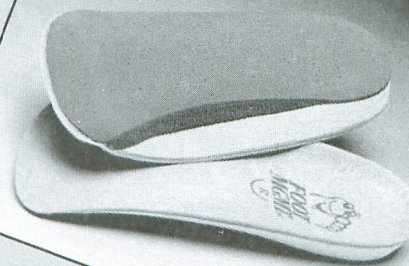
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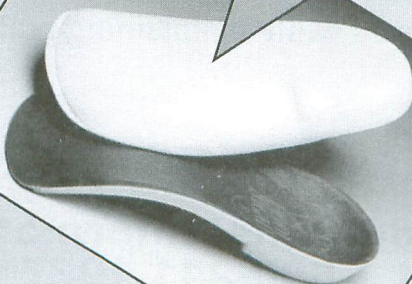


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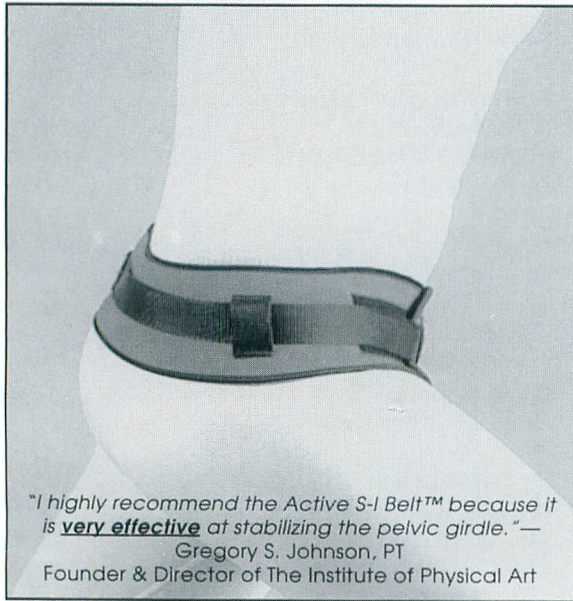
Instructions To Authors

Susan A. Appling, PT, MS, OCS, Editor
Sharon L. Klinski, Managing Editor
800/444-3982, ext. 202

1. *Orthopaedic Physical Therapy Practice (OPTP)* will publish articles pertaining to clinical practice. Articles describing treatment techniques as well as case studies and reviews of literature are acceptable.
2. Manuscripts should be reports of personal experiences and written as such. Though suggested reading lists are welcomed, references should otherwise be kept to a minimum with the exception of reviews of literature.
3. Two copies of the manuscripts should be submitted along with a 3½" disk with the document saved as Microsoft word or ascii. They should be double spaced, with one-inch margins on each side. The *American Medical Association Manual of Style*, 9th ed. should be followed. The title page should include the author's name, degree, title, place of work, corresponding address, phone and FAX numbers, and email address. The manuscript should be sent to: *Orthopaedic Physical Therapy Practice*, ATTN: Managing Editor, 2920 East Avenue South, Suite 200, La Crosse, WI 54601-7202.
4. Black and white photographs to accompany the texts should be glossy 5x7. A photo release form must accompany any photographs where patients may be seen. Any tables that might add to the usefulness of the article are also welcome.

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